

Monthly Labor Review

UNITED STATES DEPARTMENT OF LABOR • BUREAU OF LABOR STATISTICS

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The Labor Month in Review

LEADERS OF ORGANIZED LABOR agreed to join the National Advisory Board on Mobilization Policy after a conference with President Truman, April 5. High point of union activity during the 5-week absence of labor representatives from all defense mobilization agencies was the March 21 meeting of 1,000 union leaders in Washington, called by the United Labor Policy Committee.

A series of collective-bargaining settlements, reached during March, appearing to break through the 10-percent allowable wage "catch-up" formula awaited reconstitution of the Wage Stabilization Board before being acted upon. Administration officials worked throughout the month on plans for reorganizing defense agencies and policies. For the first time since Chinese intervention in Korea, the rapid rise of prices showed signs of abating.

Labor Accepts Defense Advisory Posts

Union leaders, acting through the United Labor Policy Committee, accepted membership on the new National Advisory Board on Mobilization Policy at a meeting with President Truman, April 5, marking the end of a 5-week union absence from the defense mobilization agencies.

The 17-man Advisory Board will be composed of 4 members each from labor, management, agriculture, and the public, with Defense Mobilization Director Wilson acting as chairman. The Board, responsible directly to the President, met first on April 9; it will meet at least monthly in the future.

William Green and George Meany of the AFL and Philip Murray and Walter P. Reuther of the CIO were appointed as the four labor members of the Board by the President.

ULPC leaders expressed the hope that the decision to join the Mobilization Advisory Board would pave the way for return of labor to participation on other defense agencies from which they withdrew entirely February 28.

United Labor Policy Committee Meeting

Organized labor's dissatisfaction with political and economic aspects of the administration of defense mobilization dominated labor develop-

ments throughout March; this dissatisfaction was dramatized in Washington on March 20 and 21. On the call of the United Labor Policy Committee, composed of AFL, CIO, Machinist, and Railroad union leaders, 1,000 trade-unionists met together in demonstration of labor unity. Not since the AFL-sponsored rally in support of the Wagner bill in the spring of 1935 has such unison of purpose been shown by American labor unions.

A seven-point "Declaration of Principles" was adopted pledging wholehearted support to the defense effort of the Nation. Calling for "equality of sacrifice," the Declaration insisted on "equality of representation" for "the major groups in our economy." Crystallizing arguments which had been advanced by ULPC leaders during the fortnight preceding the meeting, the declaration itemized labor's position on defense mobilization:

1. Revision of the Defense Production Act "in the national interest and not for special interests" to replace the present law which expires June 30, 1951.

2. Stronger and simpler price controls. "No one should be allowed to profiteer out of the national emergency," it stated. Fair returns to the farmers through the parity system were endorsed.

3. A flexible wage stabilization policy. Any decision to join a reconstituted Wage Stabilization Board was limited to June 30 or until the provisions of the new Defense Production Act are known.

4. More housing and "tight rent controls."

5. Revision of the tax structure to insure "equality of sacrifice."

6. Solution of civilian manpower problems by voluntary methods.

7. Equal participation in the defense mobilization program by all segments of the Nation in order to "inspire renewed public confidence and public support."

Organized labor sought the support of other sections of the population for its demand for a substantial revision of the defense economy. In the days following the March 21 meeting, ULPC leaders voiced sharpened criticisms of the defense program until the agreement to participate on the President's Advisory Board.

Wage Agreements Pending

During March several significant labor-management negotiations produced wage agreements

appearing to exceed the 10 percent "catch-up" formula of the Wage Stabilization Board. Economic Stabilizer Eric Johnston declared his inability to approve the new settlements until the WSB was reconstituted. The three union members resigned from WSB on February 15. Strike threats were made by packinghouse and by shipyard workers to enforce their new wage agreements. Wage settlements for both cotton and woolen textile workers and by TV musicians added still other cases to the accumulating docket of unapproved increases.

The first cost-of-living review for a million non-operating railroad workers under their March 1 agreement gave them a 6-cent-an-hour adjustment when the February 15 Adjusted Consumer's Price Index of the Bureau of Labor Statistics was announced at a record high of 183.8. When added to the 12.5-cents-an-hour gain in their March 1 contract, wage increases for this group of workers was above the WSB's 10-percent "catch-up" formula. Mr. Johnston was unable to approve this exception to the WSB formula. An emergency panel was named by him to determine what action could be taken.

Settlement of the wage-increase problem of the "nonops" and reconstitution of the Wage Stabilization Board became the first order of business when the National Advisory Board on Mobilization Policy held its first meeting April 9.

Revision of Defense Agencies

Efforts were made throughout the month to work out policies and organizational forms which would induce labor representatives to return to places in the defense agencies.

ESA Director Johnston advanced plans for an 18-man Wage Stabilization Board. At issue was the question of powers which the new board would have over labor-dispute settlements. The ULPC favored inclusion of nonwage matters in the new board's jurisdiction. Management insisted that the board's scope be limited strictly to "economic" issues.

ODM Director Wilson announced that a Labor-Management Advisory Committee would be established in the Office of Defense Mobilization. Mr. Wilson said this Advisory Committee will serve under the joint chairmanship of ODM Manpower Advisor Arthur S. Flemming and Frank P. Graham, Defense Manpower Administrator in the Department of Labor.

By Executive order on March 15, President Truman created the 17-man National Advisory Board on Mobilization Policy on which AFL and CIO union leaders accepted membership on April 5.

The Month's Economy

For the first time since Chinese intervention in Korea, the rapid upswing in prices showed some evidences of slowing. Beginning February 13, declines in some wholesale food prices and in grains almost offset continuing slow increases in industrial prices. Also lower were some commodities where prices were rolled back by specific ceiling regulations or, as in the case of tin and rubber where unified Government purchase control broke the speculative markets. The weekly Wholesale Price Index declined in the week ended February 27, the first such turn since October 1950. The Agriculture Department's Farm Price Index for the month ending March 15 showed a decline of a little less than 1 percent.

Factors credited with slowing the price advance included a halt in the boom buying which had featured January, Federal Reserve Board credit restrictions, and increased effectiveness of OPS controls. Price rollbacks were ordered for cattle hides and skins; the rollback for tallow, solid oils, and soap lowered retail soap prices as much as 2 cents a bar.

Price Stabilization Director DiSalle announced 3 orders bringing 60 percent of groceries under percentage margin controls on March 28. By April 6, over 1,600 products were covered by more than 110 controls issued either by OPS or NPA.

Employment continued high. The labor market tightened gradually. Unemployment in March dropped to 2.1 million, lowest figure for this month since the end of World War II. Nonfarm employment continued at an all-time high, with the greatest gains being in manufacturing. Defense contract allocations of 4.4 billions in January and 3.3 billions in February pointed toward still more marked increases in metalworking employment. Continuing this winter's abnormal activity, construction employment in February of 2.2 million marked a new high; construction expenditures of 2.1 billions for March, 21 percent above March 1950, brought new construction volume for the first quarter of 1951 to the highest figure ever recorded. Automobile production continued ahead of 1950.

Elements of Soviet Labor Law

Part II.

VLADIMIR GSOVSKI*

EDITOR'S NOTE.—*This is the second of two articles by Dr. Gsovski on Soviet labor law as it affects the Soviet equivalent of "free" labor. The first dealt with the generally punitive character of Soviet labor law, managerial and working pressures which created conditions for industrial conflict, the deterioration of the trade-unions, and the collapse of collective bargaining.*

Labor's Loss of Freedom on the Job

THE CONSTANT INCREASE of managerial power over workers since the suppression of private enterprise in the Soviet Union is revealed by successive amendments to some individual provisions of the Labor Code. Provisions defining the right of the employer to dismiss the employee summarily because of failure to appear for work may serve as an illustration. The Labor Code of 1922 incorporated the provision of Czarist law¹ permitting management to dismiss a worker for failure to appear without justifiable reason for 3 consecutive days or for 6 days during a month.² In 1927, this was changed.³ Failure to appear for a total of any 3 days during a month constituted grounds for dismissal. In 1932,⁴ only 1 day's unjustified absence was sufficient and mandatory ground for dismissal of a worker in a government enterprise, to be followed by an automatic eviction, without a court action, from the living quarters which he occupied because of his employment.

An act of December 28, 1938, was directed against tardiness, leaving work before the scheduled time, undue prolonging of lunch time, and loitering on the job.⁵ Those who committed such infractions were subject to warning or to transfer to lower grade jobs. Three violations in 1 month or four in 2 months, led to dismissal (sec. 1). An official interpretation of the act, issued on January 9, 1939,⁶ states that penalties milder than dismissal should be applied only in cases of tardiness not exceeding 20 minutes. A single tar-

diness exceeding 20 minutes should result in immediate dismissal.

Later, by an edict of June 26, 1940,⁷ job freezing was enacted, and unauthorized quitting was made an offense punishable in court by imprisonment. Then, according to the Soviet jurists, the possibility arose that a worker might purposely fail to appear on time in order to be dismissed and thereby obtain a chance to find a better job. Therefore, the June 1940 edict rescinded mandatory dismissals for tardiness and absenteeism and declared them to be offenses punishable by disciplinary penalty in case of tardiness or court sentence for absenteeism.

The act of December 28, 1938, made managers subject to dismissal and penal prosecution in court for failure to inflict the prescribed penalties (sec. 2).

The Standard Rules of Internal Labor Organization, enacted on January 18, 1941,⁸ stress that "every violation of labor discipline shall entail either a disciplinary penalty or prosecution in court" (sec. 19). Disciplinary penalty is imposed by management as soon as it becomes aware of the violation. The imposition of the penalty does not relieve the employee from the duty to compensate for damage caused by any defective work.

Among the violations, the rules specify tardiness, loitering on the job, absenteeism, and unauthorized quitting of the job (secs. 21, 25, 26). Coming to work late, going out for lunch ahead of time, being late in returning from lunch, or

leaving work ahead of time, if done without a justifiable reason, subjects the worker to managerial discipline in instances where the loss of time does not exceed 20 minutes and does not occur thrice a month or four times within two consecutive months. In the latter instances violators are considered absentees and are punished in court.

If an employee appears at work in a state of intoxication, he is guilty of absenteeism (sec. 26). Unauthorized quitting a job is an offense punishable in court. Loitering on the job is subject to disciplinary penalties.

The application of so many penal clauses raised fine legal problems for Soviet jurists, who have perhaps shown an attachment more for legal niceties than common sense. Following is a discussion of the legal definition of sleeping on the job in a treatise on Soviet labor law printed in 1946:⁹

The question whether loitering on the job or sleeping during working hours should be considered absenteeism came up in judicial practice several times. Legal writers answered this question in various ways. Some thought that "there is no reason to exclude . . . loitering on the job from the concept of absenteeism"¹⁰ [reference on an article in a law review is made], while others were of the opposite opinion [another reference].¹¹

From the comparison of sections 21 and 26 of the Standard Rules of Internal Order, it becomes evident that loitering on the job, regardless of how long it lasts and how often it occurs, entails a disciplinary penalty and not punishment in court. Sleeping during working hours is a form of loitering on the job and therefore should not be considered absenteeism. This conclusion is supported by the following ruling of the Trial Criminal Division of the U. S. S. R. Supreme Court: "Insofar as sleeping on the job is a violation of labor discipline, not connected with the absence of the worker from his post but, on the contrary, necessarily presumes his presence there, such an offense may not be qualified as absenteeism. Being a kind of loitering, sleeping during working hours, if it did not and could not cause serious harm, must be visited by disciplinary penalty."¹²

Leaving the place of employment without the express permission of management has been punishable in court by imprisonment for from 2 to 4 months since June 26, 1940. Previously a month's notice by the employee was adequate for quitting.¹³ In defense industry the penalty would be imprisonment up to 8 years.¹⁴

The provisions relating to this penalty are broadly interpreted. Thus, an employee who, twice convicted for absenteeism and serving a compulsory labor sentence at the place of his employment in lieu of jail, commits absenteeism (tardiness of more than 20 minutes) again, must be prosecuted for unauthorized quitting.¹⁵ An employee who violates the shop rules for the purpose of being dismissed must be prosecuted in a like manner.¹⁶ The U. S. S. R. Supreme Court has also held:

A lengthy failure to appear for work may be considered absenteeism only in instances where the court has established that the employee had no intention to quit the given job. If the court establishes that the person concerned intentionally stayed away from work with the design to quit it without authorization, such act must be qualified as quitting of the job without authorization even if the perpetrator appears again on the job before the trial.¹⁷

Finally, by the Edict of October 19, 1940, Government department heads were authorized to allow to transfer certain categories of technical personnel and skilled labor, regardless of their wishes, from one establishment to another. A series of decrees lists the jobs coming under the decree. Failure to obey the transfer is punished as unauthorized leaving of the job.¹⁸ It is characteristic that the imposition of penalties for infraction of labor discipline are heard in court by a single professional judge with the exclusion of two lay "assessors" required for all other trials.¹⁹

In several branches of industry especially severe rules of discipline are established granting the "bosses" power to impose penal confinement up to 20 days at their own discretion without a court action.

Railroad employees were placed under strict military discipline in 1943 by virtue of a special disciplinary code.²⁰ Arrests not to exceed 20 days could be imposed at the discretion of a superior. Appeals could be made to the next higher superior whose decision is final, but appeal had to be filed within 3 days with the superior who imposed the penalty. No court appeal is permitted.

Similar provisions are contained in the new disciplinary codes for the following employees: maritime and inland waterways transportation lines; the main bureau of the Civil Air Fleet; postal, telegraph, and radio systems; and municipal electric power plants. Militarized watchmen of ware-

houses and workmen in air defense and fire protection of defense industries are also covered.

Wages and Hours

The Labor Code of 1922, enacted when limited private enterprise was tolerated, provided for payment by time or by piece, leaving the determination of individual pay to the individual employment contract or to collective agreements. The remuneration was not, however, to be less than the minimum wage fixed by competent authority (secs. 58-60). These provisions may be considered totally out of date. In the first place, the principle of piecework since 1931 has been given official preference and, by 1934, 70 percent of the work done in large industrial plants was paid for by piece rate. Secondly, the practice of making collective agreements was abandoned for 14 years in 1933 when "the transition from regulation of wages by a contract to their regulation by the Government was completed."²¹ When collective agreements were resumed in 1947, only such rates of wages could be included as were previously established by the Government. The all-embracing governmental plan, Soviet writers declare, does not exclude collective agreements altogether, as some of them thought in 1946, but certainly excludes wages from bargaining.²² The definition of schedules and rates of wages and salaries is reserved to the higher agencies of the principal employer—the Government. As the official compilation of labor laws of 1947 puts it:

The amount of wages and salaries is at the present time fixed by the decisions of the Government (or on the basis of its directives).

The agreement of parties plays a subordinate role in the determination of the amount of wages or salaries. It should not be contrary to law and is allowed only within limits strictly provided for by the statute, for example, where the precise amount is fixed in instances in which the approved table of organization defines the rate as "from"—"to"; or fixing the remuneration for part-time employment of a person holding another position, and the like.²³

The schedules established by the Government are subject to constant changes and are too complex to be analyzed in the present article. It should suffice to state three basic features common to all schedules: highly progressive piecework rates, bonuses, and, absence of a guaranteed minimum wage. Bonuses are of two kinds; those

based upon output and periodically paid as part of the wages; and individual bonuses given at the discretion of the administration. The overriding principle is that in order to receive the minimum rate the worker "must attain the standard of output prescribed for him." (Labor Code, sec. 57 as amended in 1934).

Originally the Labor Code as enacted in 1922 (when some private enterprise existed) left determination of the standard of output to agreement between the administration of the plant or factory and the appropriate trade-union.

But since the Acts of June 4, 1938, and January 14, 1939, the revision of standards of output has been in the hands of the Ministers in charge of the individual industry branches who must, however, consult the Central Council of the Trade Unions, i. e., the labor department (*supra*, Part I), but not the individual unions. As an example, the official textbook on labor law of 1944 refers to the Order of the Minister of the Aviation Industry of April 20, 1942, No. 117. By this order, new standards of output and new rates are to be approved by the directors of individual plants upon the recommendation of the heads of the shops, and immediately put into effect.²⁴ In some instances, standards of output and rates are directly enacted by the Council of Ministers (prior to March 1946, of People's Commissars), e. g., the schedule for the cotton textile industry and for motor transportation.²⁵ Thus, the trade-unions, though controlled by the Government and the Communist Party, have in certain instances no part in establishing the major conditions determining wages.

As mentioned in Part I, the Edict of the Presidium of June 26, 1940, lengthened the working day from 7 to 8 hours for plants and offices, except for especially dangerous jobs, for which the 6-hour day was retained. Moreover, the edict restored the 6-day workweek with Sunday as the day of rest.²⁶ Since 1931 there had been a 5-day work schedule with each sixth day a day of rest. This meant an addition of 33 hours per month for laborers and of 58 hours for office workers. Salaries paid on a time basis remained unchanged, and the piecework rates were correspondingly lowered to keep wages at the same level.²⁷

It should also be mentioned that on June 26, 1941,²⁸ the management of individual enterprises could impose mandatory daily overtime up to 3

hours. Minors under 16 years of age were limited to 2 hours overtime a day. Pregnant women from the sixth month on, and those nursing babies during the first month of nursing, were exempted. This overtime may, however, be considered only as a wartime emergency.

Financial Responsibility of Employees

A particular feature of the Soviet labor law is the financial responsibility of the worker for any damages to the employer caused by the worker. There are three types of such responsibility: liability for the full amount of actual damage, liability limited to a certain portion of the employee's pay, and liability exceeding actual damage several fold.

Liability for the full amount is charged when a criminal offense is established in court, when liability is stipulated in writing in the employment contract or is provided for by special laws, or when damage is caused outside the performance of the employee's regular course of employment. (Labor Code, sec. 83¹).

Liability is limited to one-third of the scheduled rate if the damage is caused by negligence in work, by a violation of law not constituting a criminal offense, or by a violation of shop rules or the employer's special instructions and orders. This type of liability applies in cases of injury, destruction, or loss of equipment or livestock, in cases of failure to collect full payments, of loss or depreciation of documents entrusted, and also where the employer has been forced to make unnecessary payments, including penalties. The same responsibility arises in case of improper expenditure of money assigned for business needs (Labor Code, sec. 83).

The liability of an employee is greater if he spoils, through negligence, raw material or semifinished or finished products. He then is liable for up to two-thirds of his average earnings rather than of his scheduled rate.²⁹

The greatest liability rests on managers of fuel stocks at machine-tractor stations and governmental farms for shortages of fuel—10 times the value of the shortage, provided their acts do not incur penal prosecution.³⁰ In case of theft, wanton destruction, or intentional spoilage of raw materials, semifinished or finished products, as well as of instruments, work clothes, and other

property issued for the use of an employee, he is liable to pay up to fivefold the amount of damage.³¹ The same rate applies to theft, unaccountable shortage, or mishandling of industrial products in governmental stores, but based on the commercial or black market price.

Arbitration and Conciliation

With the elimination of collective bargaining in 1933, the arbitration procedure originally devised for settling labor disputes has also undergone a change. After collective bargaining was resumed in 1947, the Soviet jurists drew a distinction between disputes involving establishment or change of labor conditions and those arising from the application of conditions already established. For all practical purposes, they say, only the second group comes under the special arbitral procedure originally devised for both. Establishment of labor conditions and their change are at present within the province of the administration.³²

Conciliation boards and arbitral boards, established to resolve disputes over labor conditions, under the Labor Code and Act of August 29, 1928 (which remain on the statute book),³³ went out of existence after the People's Commissariat for Labor was replaced by the Central Council of Trade-unions in 1933.³⁴

The piece-rate and dispute boards established at that time in each establishment are still in existence, but since January 2, 1933, "the principal part of their function regarding piece rating, viz., establishment of standards of output and piece rates, fell off," according to the official textbook on labor law of 1946.³⁵ They are, in fact, boards for settling disputes between individual employees and management concerning the application of the existing labor regulations, that is to say, like grievances committees. In some instances the aggrieved party must bring his grievance before the board before going to court or elsewhere. Representatives of the management and of the workers' committee have equal votes, and if no accord is reached the aggrieved may go to court. The awards are final but may be revised *ex officio* by higher authorities; if they set the award aside the aggrieved party may then go to court.

In some other instances there is a choice between going to court or to the board. Consequently, the Soviet regulation of labor disputes

offers the employee, at best, redress against individual abuses committed by the management.

But there are also instances in which the party may not appeal to a court or board but only to higher administrative authorities.³⁶ This is true of the branches of employment in which the management, through the so-called Disciplinary Codes enjoys especially broad disciplinary powers. An employee in these branches, if penalized by the administration, may not appeal to the court or conciliation board but only to higher superiors in the establishment. (See *supra*, p. 386.)

Conscript Labor

As mentioned above, every employee since 1940 has been frozen on the job. Numerous categories of employees may be transferred, regardless of personal preference (*supra*, p. 386).

However, the Soviet jurists point out, that in many instances under the Soviet law employment is also created by administrative act.³⁷ An example of this is the draft of youths for industrial labor.

The Edict of October 2, 1940,³⁸ authorized the Council of People's Commissars (since 1946, Council of Ministers) to draft annually from 800,000 to 1,000,000 youths of from 14 to 17 years of age for training in trade schools and railroad schools to become skilled laborers, or for special on-the-job training (*shkolny fabrichno-zavodskogo obucheniia*) to become "mass workers," as the law termed it, in the mining, metal, and building industries. The training period is from 6 months to 2 years only, thus making it clear that these schools are not educational institutions but merely training projects.

The curriculum is designed not only for industrial training but also for political indoctrination and militarization of labor. No particular number of hours is reserved for the study of general subjects, but 2 hours a week are assigned to political indoctrination. The trainees wear a special uniform and live under a regime similar to that of a military school. They must observe the rules of military courtesy. For example, the rules of March 15, 1947, prescribed the following standard of conduct:

SECTION 7. When the instructor approaches, the trainee must get up and he may not sit down until the instructor passes by or gives him permission to

sit down. When the instructor addresses him the trainee must stand at attention. If the trainee has to pass by the instructor, he must ask permission to do so, e. g., "Allow me to pass by."

By the Edict of the Presidium of June 19, 1947,³⁹ the draft age was changed, and it was made clear that youths of both sexes are subject to the draft. For training in the vocational and railroad service schools, boys from 14 to 17 years of age and girls from 15 to 16 years of age may be drafted. For schools of industrial training, boys and girls from 16 to 18 years of age, and for underground work in coal and mining industries, as well as for smelters, foundries, welding, and drilling in metallurgy and oil industries, boys up to 19 years of age may be drafted.

After training, the labor draftees are obliged to work for 4 years in Government factories, plants, mines, etc., as assigned by the Ministry of Labor Reserves. The draftees are paid regular wages, equal to those of other workers. Until the expiration of their term of obligation, labor draftees are deferred from military service.

Leaving school without authorization, and other violations of school discipline subject the young people to penalties of up to 1 year in a reformatory.⁴⁰ The number of young men to be drafted from the cities is determined by quotas established for each year. From the collective farms (the rural population), 2 young people for each 100 persons between the ages of 14 and 55 are drafted. Drafts of 600,000 were ordered in November 1940 and in June 1941.⁴¹ In the year 1946-47, 1,700,000 boys and girls were trained⁴² and according to the report of the Minister of Labor Reserves in 1950 more than half of the workers in the largest U. S. S. R. enterprises are young persons trained under this program.⁴³

Aside from the draft, orphans 12 to 15 years may be assigned to special schools of industrial training for 3 or 4 years. They are subject to all duties of the draftees and their number is included in the above figures. Available regulations do not indicate that consent of the orphans or of their guardians is required.

Moreover, graduates from higher educational institutions (universities) and vocational schools on the level of technical high schools (*tekhnikum*) must work for 3 or 5 years⁴⁴ at jobs assigned by the ministry in charge of the particular school. Failure to take the appointment is treated as an

offense punishable in court as absenteeism or unauthorized quitting of the job.⁴⁵

Finally, several wartime laws were enacted drafting labor for work in various branches of industry regardless of location.⁴⁶

These elements of conscript and forced "free" labor exist in the Soviet Union in addition to the outright convict labor in labor camps operated by the Ministry of Interior (M. V. D.). Discussion of them is outside the scope of this article, which is devoted exclusively to the Soviet group which is the nearest counterpart of our free labor.

In discussing the general situation of postwar free employment, Soviet writers themselves plainly indicate that "voluntary" employment under Soviet conditions is not much different from conscript labor. A treatise by Dogadov on the development of the Soviet labor law, which appeared in 1949, states:

In the socialist society there is no difference in principle and quality between drafted labor and labor performed by voluntary entering into labor relations by taking of employment. When we are saying that in the socialist society the principle of voluntary labor is recognized we are not speaking of recognition of some kind of abstract principle of free labor and trade in a liberal and bourgeois sense, a principle which would be treated as a value per se.

Under the conditions of socialist society . . . it is impossible to secure the principle "from each according to his ability" without a pressure by the state and law regarding the universal duty to work.⁴⁷

It is clear that the "voluntary employment" still to be found in some branches of Soviet industry is far from our concept of free labor.

Jobs are frozen. Worker and manager are under equally heavy penalties, both criminal and civil. Millions of future Soviet citizens, while still only 12 to 14 years old, are assigned for training at jobs selected for them by the authorities, without necessary regard for personal preferences or those of their parents or guardians. Professionals, for considerable time after graduation, are denied the right to go into a job of their own choosing. This is the general picture of "free" labor in the Soviet State.

*Chief, Foreign Law Section, Law Library, Library of Congress.

¹ Code of Industrial Labor, Sec. 62, subsec. (1) (1913 ed.) *Svod Zakonov*, Vol. XI, Part 2.

² Soviet Labor Code, sec. 47, subsec. (f) as enacted in 1922.

³ *Idem*, as amended on August 22, 1927, R. S. F. S. R. Laws, 1927, text 577.

For other reasons of premature dismissal, see Gsovski, Soviet Civil Law, Vol. I, p. 801.

⁴ Act of November 20, 1932, R. S. F. S. R. Laws, 1932, text 371.

⁵ Act of December 28, 1938, U. S. S. R. Laws, 1939, text 1.

⁶ Interpretation of January 9, 1939, *Izvestiia*, January 9, 1939.

⁷ Edict of Presidium of the Supreme Soviet, *Vedomosti*, Nos. 20 and 28, 1940. This edict is treated as being still in force in 1949, by Z. Vyshinskaia, Crimes in the Field of Labor Relations (in Russian 1949), pp. 83, etc., 89.

⁸ U. S. S. R. Laws, 1941, text 63.

⁹ Aleksandrov, joint author, Soviet Labor Law (in Russian, 1946), p. 270.

¹⁰ The author refers to Dubovsky "Concept of Absenteeism" in Soviet Justice (in Russian), No. 1, 1940.

¹¹ The author refers to Moskalenko, "The New Rules of Internal Order" *idem*, No. 11.

¹² U. S. S. R. Supreme Court, Criminal Trial Division, Decision of January 25, 1943, quoted from Judicial Practice of the U. S. S. R. Supreme Court (in Russian), 1943, No. 4, p. 14.

¹³ *Lex cit. supra*, note 5.

¹⁴ Edict of December 26, 1941, sec. 2, *Vedomosti*, 1942, No. 2.

¹⁵ U. S. S. R. Supreme Court, Ruling of July 7, 1941, Collection of Rulings of the U. S. S. R. Supreme Court from June 23, 1941, to March 1, 1942, p. 9. Aleksandrov, *op. cit. supra*, note 9, p. 283.

¹⁶ *Idem*. Ruling of December 15, 1941, *op. cit.*, p. 21.

¹⁷ *Idem*. Ruling of October 22, 1942 in Judicial Practice of the U. S. S. R. Supreme Court (in Russian), 1942, No. 2, p. 4.; Aleksandrov, *loc. cit.*

¹⁸ Edict of Presidium of the U. S. S. R. Supreme Soviet of October 19, 1940, *Vedomosti*, 1940, No. 42. For citations of decrees specifying jobs coming under the edict, see Gsovski, Soviet Civil Law, vol. I, p. 830, note 132. The edict is treated in Z. Vyshinskaia, *op. cit. supra*, note 7, as being still in force in 1949.

¹⁹ Edict of Presidium of the U. S. S. R. Supreme Soviet of August 10, 1940, *Vedomosti*, 1940, No. 28.

²⁰ Collection of legislation for Workers of Railroads (in Russian, 1944), pp. 186-188.

²¹ Aleksandrov, *op. cit. supra*, note 9, p. 51.

²² Moskalenko, "Legal Problems Involved in Collective Agreements" in Trade-Unions (in Russian), 1947, No. 8, p. 16; also Aleksandrov, *op. cit.*, p. 203, 211, etc.

²³ Aleksandrov and other compilers, Goliakov, editor, Legislation concerning Labor (in Russian, 1947), p. 65, also Gsovski, *op. cit.*, Vol. I, p. 808.

²⁴ Aleksandrov and Moskalenko, Soviet Labor Law (in Russian, 1944), p. 94.

²⁵ Act of August 15, 1938, U. S. S. R. Laws, 1938, text 214, also *idem*, 1939, text 119.

²⁶ *Vedomosti*, 1940, No. 20 and No. 28.

²⁷ Decrees of the Council of People's Commissars, U. S. S. R. Laws, 1940, texts 385, 386, 387.

²⁸ *Vedomosti*, 1941, No. 30.

²⁹ Instruction of the People's Commissar for Labor of June 1, 1932, sec. 3, Aleksandrov, *op. cit. supra*, note 23, p. 135.

³⁰ Act of June 20, 1942, sec. 12; Order of Attorney General of June 23, 1942, Aleksandrov, *op. cit. supra*, note 23, p. 136.

³¹ *Id.*, p. 135; Instruction *cit. supra*, note 29, secs. 1, 2.

³² Aleksandrov, *op. cit. supra*, note 9, p. 311, etc., and note 23, p. 242.

³³ U. S. S. R. Laws, 1928, text 495.

³⁴ Aleksandrov, *op. cit. supra*, note 9, p. 313 and note 23, p. 243.

³⁵ *Id.*, p. 314.

³⁶ For enumeration of cases belonging to one or another category, see Gsovski, Soviet Civil Law, 1948, Vol. I, p. 804-805, notes 46-49.

³⁷ Aleksandrov, *op. cit. supra*, note 9, p. 137.

³⁸ *Vedomosti*, October 9, 1940, No. 37. For these and other acts on this subject, see Labor Reserves of the U. S. S. R. (in Russian), 1950.

³⁹ *Id.*, 1947, No. 21.

⁴⁰ Edict of December 28, 1940, *Vedomosti*, 1941, No. 1.

⁴¹ U. S. S. R. Laws, 1940, texts 602, 603, 604, and 673; *Izvestiia*, June 5, 1941.

⁴² U. S. S. R. in Large Soviet encyclopedia (*Bolshaia Sovetskaia Entsiklopediia*), 1947, pp. 163-164.

⁴³ Bureau of Labor Statistics, Notes on Labor Abroad January 1951, No. 17, p. 15.

⁴⁴ Aleksandrov, *op. cit. supra*, note 9, p. 139; Higher Education (in Russian, 1945), p. 170.

⁴⁵ Orders of the U. S. S. R. Commissar for Justice of September 25, No. 125/171 and of December 4, 1939, No. 173/207, Aleksandrov, *op. cit. supra*, note 23, p. 12.

⁴⁶ For citation and translation, see Gsovski, Soviet Civil Law, Vol. I, p. 832, etc., Vol. II, p. 548, etc.

⁴⁷ Dogadov, "History of Development of the Soviet Labor Law" in *Uchenye Zapiski* of Leningrad University, Series of Legal Sciences, No. 2 (in Russian 1949), p. 163, 166.

Economic Status of Social Workers in 1950

RAPIDLY EXPANDING national interest in social services has centered attention upon the economic status of social workers. They are the key workers in a wide variety of public and private welfare programs including public assistance for which the Nation spends annually about \$2½ billion.¹ In 1950, an estimated 75,000 social workers were employed at an average annual salary of \$2,960.²

In order to find out more about the earnings of these workers, the Bureau of Labor Statistics, in cooperation with the Federal Security Agency, the National Social Welfare Assembly, and the National Council on Social Work Education, conducted a Nation-wide survey.³ Valuable assistance was provided by the Metropolitan Life Insurance Co., the American Red Cross, the American Association of Social Workers, the Volunteer Division of the United Community

Services of Washington, D. C., and many other social work organizations.

Annual Salaries

Women, who comprised nearly 70 percent of all social workers in the country, earned an average annual salary of \$2,800 in 1950—slightly less than the \$2,960 average for all social workers (table 1). The men received \$3,430. Part of this differential is explained by the greater proportion of men in the higher paying positions.

Case or group workers, who account for 60 percent of all social work positions in the country, earned an average of \$2,730; their supervisors averaged \$3,610. In each position, men received more than women (\$200 for case workers, \$240 for supervisors), despite the fact that women reported more undergraduate education and more graduate level social-work education than men in comparable work.

Social workers with executive responsibility averaged \$3,700. Other workers in the field, engaged in teaching, research, and consultation, averaged \$3,710.

The Federal Government paid the highest salaries for all social-work positions, with annual averages ranging from \$4,000 for case or group workers to \$5,880 for those social workers engaged in teaching, research, consulting, etc. Private

TABLE 1.—Average¹ annual salaries² of social workers by position, sex, and region,³ 1950

Position	United States	New England	Middle Atlantic	Border States	South-east	Great Lakes	Middle West	South-west	Moun-tain	Pacific
<i>All workers</i>										
All positions	\$2,960	\$3,040	\$3,050	\$2,860	\$2,490	\$3,010	\$2,690	\$2,770	\$2,850	\$3,320
Case or group workers	2,730	2,740	2,780	2,460	2,400	2,720	2,400	2,510	2,580	3,060
Supervisors of case or group workers	3,610	3,500	3,620	3,810	3,180	3,600	3,620	3,400	3,460	3,860
Executives	3,700	3,800	4,270	3,960	3,020	3,690	3,060	3,610	3,350	4,280
Other ⁴	3,710	3,360	3,900	3,790	3,310	3,680	3,410	3,390	3,700	4,090
<i>Men</i>										
All positions	3,430	3,390	3,270	3,680	3,600	3,500	3,290	2,980	3,390	3,880
Case or group workers	2,860	3,030	2,780	2,740	3,130	3,010	2,840	2,820	2,900	3,220
Supervisors of case or group workers	3,790	3,470	3,640	4,500	4,300	3,730	3,990	3,610	3,390	4,400
Executives	4,430	4,470	4,650	4,970	3,740	4,250	3,670	4,230	3,800	4,940
Other ⁴	3,700	3,680	3,640	3,760	3,360	3,700	3,380	3,540	3,930	4,210
<i>Women</i>										
All positions	2,800	2,810	2,990	2,670	2,440	2,800	2,490	2,630	2,670	3,170
Case or group workers	2,660	2,660	2,790	2,430	2,280	2,670	2,300	2,470	2,530	3,040
Supervisors of case or group workers	3,550	3,520	3,620	3,700	3,120	3,460	3,310	3,100	3,460	3,730
Executives	3,180	3,350	3,740	3,210	2,760	3,160	2,760	3,050	3,070	3,690
Other ⁴	3,710	3,110	4,020	3,840	3,300	3,660	3,440	3,380	3,640	4,060

¹ Median.

² Annual salaries reported in the summer of 1950. These salaries do not include cash equivalent of any maintenance provided by the employer.

³ The regions used in this study include: *New England*—Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, and Vermont; *Middle Atlantic*—New Jersey, New York, and Pennsylvania; *Border States*—Delaware, District of Columbia, Kentucky, Maryland, Virginia, and West Virginia; *Southeast*—Alabama, Florida, Georgia, Mississippi, North Caro-

lina, South Carolina, and Tennessee; *Great Lakes*—Illinois, Indiana, Michigan, Minnesota, Ohio, and Wisconsin; *Middle West*—Iowa, Kansas, Missouri, Nebraska, North Dakota, and South Dakota; *Southwest*—Arkansas, Louisiana, Oklahoma, and Texas; *Mountain*—Arizona, Colorado, Idaho, Montana, New Mexico, Utah, and Wyoming; *Pacific*—California, Nevada, Oregon, and Washington.

⁴ Includes teaching, research, consultation, other supervision, etc.

agencies paid their social workers on the average about \$1,000 less than the Federal Government. Executives in private agencies received slightly less than supervisors of case or group workers, perhaps because higher salaries are prevalent in the large private agencies which employ a greater proportion of supervisors. Lowest salaries were found in State, county, and other local government agencies, where the averages ranged from \$2,690 for case or group workers to \$3,690 for researchers and consultants.

Average salaries varied widely among different social-work programs (chart 1). Public assistance programs (including old-age assistance, aid to dependent children, to the blind, and to the permanently disabled, and general assistance)

account for 2 out of every 5 social workers in the country. But they paid next to the lowest salarywise.

Lowest paid was work with the aged in institutions, where cash salaries for social-work positions averaged \$2,490. Annual salaries averaging between \$3,000 and \$3,370 were received by those providing aid to families (other than public assistance), those in child-welfare activities (except school social work) and aid to the mentally ill in hospitals, and those engaged in medical social work and in group work. Workers in mental hygiene clinics, with the physically handicapped, and adult offenders, and school social workers earned annual salaries ranging between \$3,700 and about \$3,900. Highest average annual sala-

Chart 1. Average Annual Salaries of Social Workers

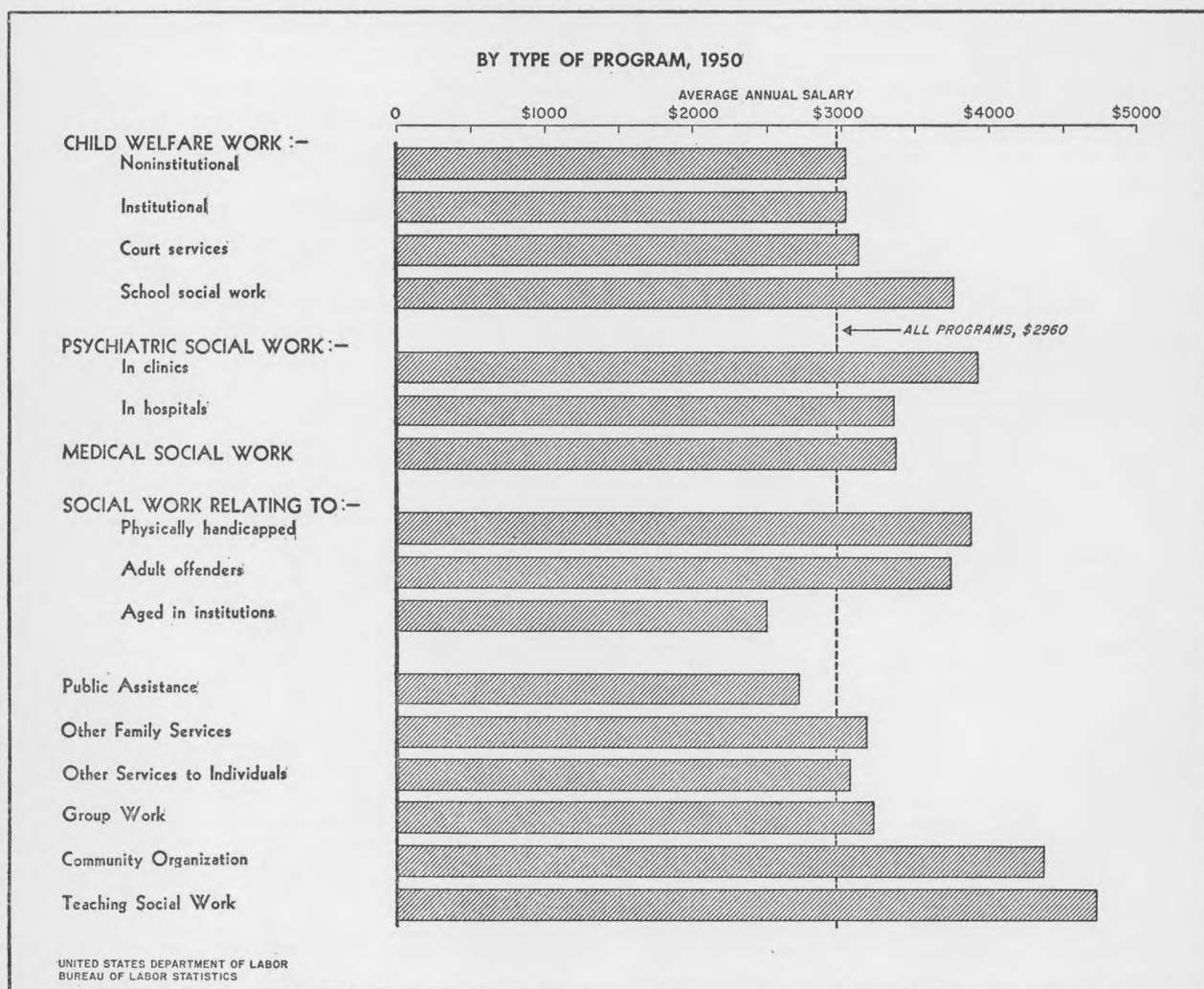
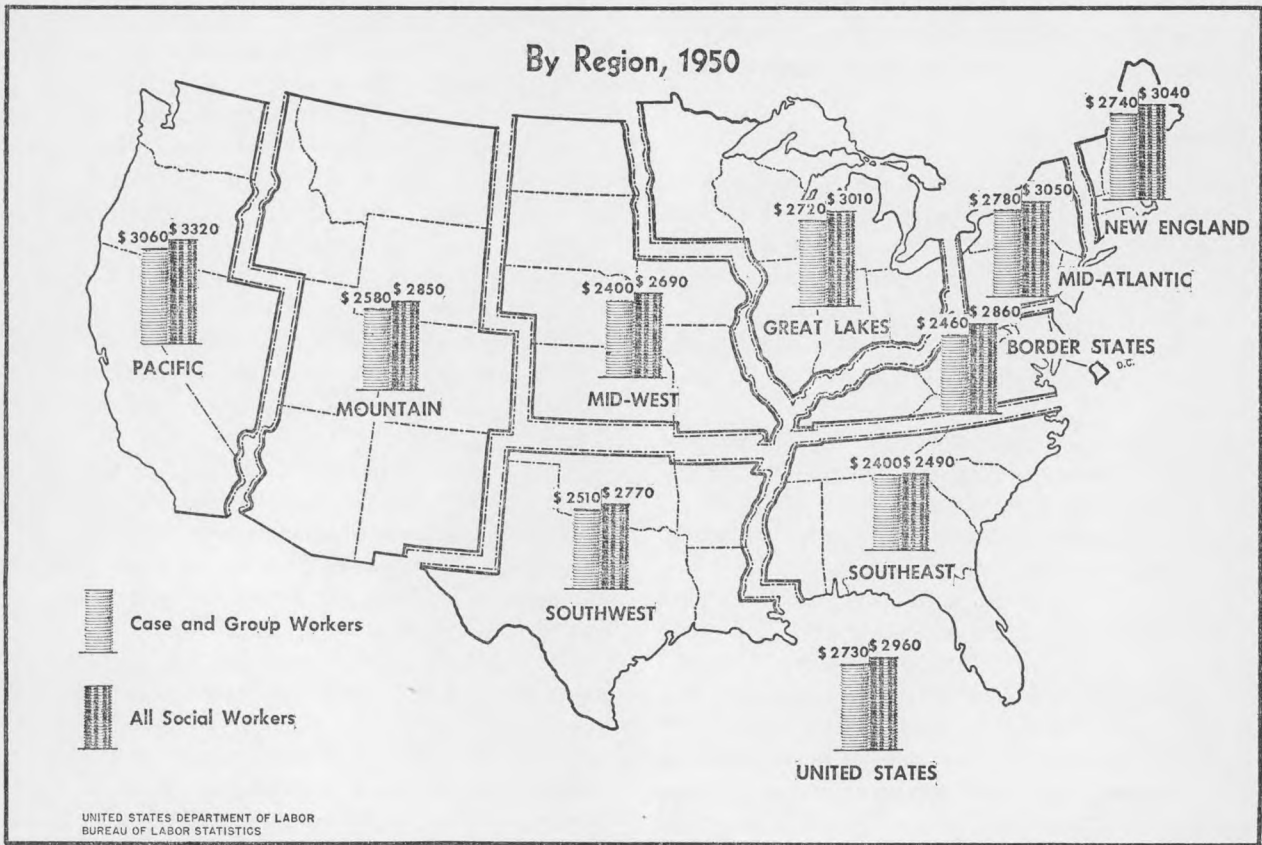


Chart 2. Average Annual Salaries of Social Workers



ries reported were \$4,360 and \$4,710 for community service and teaching social work, respectively.

Since salary differences among programs may be based in part upon differences in the proportion of each position in the work force, some comparisons of average annual salaries of case or group workers among the various programs may be of value. Annual salaries of case workers ranged from about \$2,500 for those engaged in public assistance and in institutions for the aged to \$3,700 for those in school social work and work with the mentally ill in clinics. Approximate average salaries of case workers in all programs are summarized below:

- \$2,400-\$2,600-- { Public assistance.
Work with aged in institutions.
- \$2,700-\$2,800-- { Noninstitutional child welfare (except court).
Institutional child welfare.
Other services to individuals.
Group work.

- \$2,900-\$3,200-- { Family services.
Court services for children.
Work with mentally ill in hospitals.
Medical social work.
- \$3,600-\$3,800-- { School social work.
Work with physically handicapped.
Work in mental hygiene.
Work with adult offenders.

Regionally, salaries were highest in the Pacific States, where they averaged \$3,320, and lowest in the Southeastern States, \$2,490 (chart 2). This regional pattern prevailed generally both for State, county, and local governments and for private agencies. In the former group of agencies, salaries were almost as low in the Middle West as in the Southeast. Private agencies in the Middle Atlantic States were the highest paying for supervisors of case or group workers and for executives. This level of salaries probably reflects the predominance of the large private agencies in this area.

Salaries tended to increase with amount of

experience. However, there was less variation with experience among case or group workers and their supervisors than among the higher paid positions, and in salaries of women than of men.

Supplemental Benefits

Paid vacations of from 2 to 4 weeks were reported by over 85 percent of the social workers having at least 1 year's service in their present agency. Only 4 percent reported vacations of less than 2 weeks and only 7 percent reported more than 4 weeks. Regionally, the most liberal vacation plans were found in the Middle Atlantic States.

In all regions, approximately 70 to 80 percent of the social workers reported 2 weeks or more of sick leave after 1 year's service in the agency. Again, the Middle Atlantic States offered slightly more generous plans.

Plans for retirement, paid for at least in part by the employer, were available to over 70 percent of the social workers in the country. Covered were all the Federal workers (except temporary employees, now covered by retirement provisions of the Social Security Act) about 80 percent of the State, county, and local government employees, and about 60 percent of the social workers in private agencies. Many social workers in commenting on working conditions said they felt they should be covered by the Social Security Act.

Education

Two-thirds of the social workers are college graduates, and about half reported some graduate work (table 2). Those employed by the Federal Government, the highest paid, also are the most highly educated; almost 90 percent hold bachelor's degrees, and almost all of these reported some graduate work education. Bachelor's degrees were held by about 70 percent of the social workers in private agencies, and 60 percent had had some graduate work. In the State, county, or other local governments, where average salaries were lowest, about 3 out of 5 social workers held bachelor's degrees and less than half had had some graduate work.

The survey indicates that only 2 out of 5 social workers have had specialized graduate education in schools of social work. As in the case of general education, employees with the greatest amounts of specialized graduate education received the highest salaries.

Those working in mental hygiene clinics had more social-work education than those in any other program; almost 95 percent had 1 year or more of graduate social-work study and over 80 percent had at least 2 years; teachers of social work were next, with over 80 percent having had 1 year or more. Over 3 out of 5 medical social workers and workers with the mentally ill in hospitals reported 1 year or more of such educa-

TABLE 2.—Percentage distribution of social workers by amount of education, type of position, and sex, 1950

Amount of education	Percentage of employees														
	All positions			Case or group workers			Supervisors of case or group workers			Executives			Other positions ¹		
	Both sexes	Men	Women	Both sexes	Men	Women	Both sexes	Men	Women	Both sexes	Men	Women	Both sexes	Men	Women
All education: ²															
High school or less	9	12	8	9	11	8	6	12	4	12	13	11	8	12	6
Less than 2 years of college.....	7	7	7	7	7	7	4	5	4	8	7	9	5	7	4
More than 2 years of college.....	11	10	12	12	10	13	9	10	8	12	10	13	8	10	7
Specialized undergraduate training.....	2	1	2	2	1	2	1	1	1	2	1	2	2	3	2
Bachelor's degree only.....	19	17	20	23	22	24	9	9	8	11	11	12	13	13	12
No bachelor's degree but some graduate work.....	5	4	6	5	3	6	6	4	7	7	5	8	5	2	6
Bachelor's degree and some graduate work.....	47	49	45	42	46	40	65	59	68	48	53	45	59	53	63
Total.....	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Social work graduate education:															
No work in graduate school of social work.....	60	66	57	66	73	62	38	56	32	59	59	57	47	59	41
Less than 1 year.....	13	11	14	12	10	13	16	13	16	14	13	15	12	12	12
1 year.....	5	4	6	5	4	6	6	5	7	5	5	6	7	5	8
More than 1, but less than 2 years.....	6	5	6	4	3	5	10	6	11	6	6	7	8	4	10
2 or more years.....	16	14	17	13	10	14	30	20	34	16	17	15	26	20	29
Total.....	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100

¹ Includes teaching, research, consultation, other supervision, etc.

² Includes all types of graduate work.

tion; 2 out of 5 workers in family service other than public assistance and in welfare work with children, except institutional and court work, reported 1 year or more of graduate social-work education. Over half of the social workers in all other programs reported no graduate social-work education.

About two-thirds of the supervisors but only 2 out of 5 case workers reported graduate work. Roughly half the executives and three-fifths of the teachers and researchers had some graduate training.

Experience in Social Work

More than 5 years of social-work experience was reported by 3 out of 5 social workers, and 4 out of 5 had more than 2 years' experience. Among social-work programs, the most professional experience was reported for teaching, also the highest-paid program. Three-quarters of the teachers had 10 or more years' experience. Community organization is the next to the highest-paid program and also accounted for next to the greatest amount of professional social-work experience. Between 55 and 70 percent of the workers in all other social-work programs reported 5 or more years' experience.

Workers' Attitude Toward Jobs

The suggestion that social workers are partially compensated by the opportunity to perform a humanitarian function, and the apparent conclusion that they should, therefore, not be too concerned with salary may be discounted by the comments submitted with the questionnaires. One reply, typical of many, stated: "Social work . . . is the most overrated and underpaid 'profession' in the job category. If social work is to take on the same aura as medicine and law, etc., commensurate pay scales should be considered."

Another queried: "Social work is often poorly paid, and takes long hours. It is very interesting and has the humanitarian aspect, but with no raises and poor administration; is it worth it?"

Still another indicated the need to find his financial security outside the field of social work. He stated: "Social work and its ramifications has been a lifetime hobby. Since social workers are underpaid by a poorly reasoning society my insurance has been the study of law and business." Several respondents indicated that they actually planned to leave the field of social work for financial reasons.

Replies consistently indicated the belief that educational and experience standards for social work positions were out of line with the salary scale. One parole officer pointed out that a specific qualification for his job was a degree from a graduate school of social work but that an applicant without even a high-school diploma could start as a correctional officer with a salary \$25 in excess of the probation officer's starting pay.

A respondent with a Ph. D. in social work reported that he made "almost the same amount teaching in college part time evenings and summers as I do per year in social work—i. e., social work pays about \$1.81 per hour. Teaching \$4-\$6 per hour . . ."

Many case or group workers expressed concern about the lack of advancement possibilities in social work.

—MAXINE G. STEWART
Division of Wage Statistics

¹ Including social insurance and related programs, this figure would total \$12 billion. Estimates are from a forthcoming study by E. V. Hollis and Alice L. Taylor titled *Social Work Education Looks Ahead* scheduled to be published by the Columbia University Press in September 1951.

² Average salaries used throughout this report are medians; in other words, half the workers received more and half received less than the amounts specified.

³ A social worker was defined for survey purposes as any full-time worker in a social-work position, whether professionally trained or not, and whether publicly or privately employed. The Bureau estimates that over 60 percent of the social workers are employed by State, county, or other local governments, about 35 percent by private agencies, and less than 3 percent by the Federal Government. Data were collected in the course of the survey for case or group workers who provide direct service to individuals, families, or groups; supervisors of case or group workers; social workers with executive responsibility, such as administrators, assistant administrators, executives, and directors; and other workers who are engaged in teaching, research, consultation, and supervision not related to case or group work.

About 51,000 responded to the survey questionnaire mailed out the spring of 1950. All the approximately 34,000 social workers in State public assistance and child welfare agencies participated in the study. Of the estimated 40,000 in other agencies, roughly 50 percent received the questionnaire and over 17,000 responded.

In tabulating the information, each group was given only its proportionate weight.

Summaries of Studies and Reports

Hosiery Manufacture: Earnings in October 1950¹

Full-Fashioned Hosiery

KNITTERS, single-unit or backrack, were the highest paid among the selected occupations studied in October 1950 in full-fashioned hosiery mills. Workers in this occupation averaged more than \$2 an hour in each area—\$2.45 in Reading (Pa.); \$2.25 in Charlotte (N. C.); \$2.23 in Philadelphia; \$2.18 in Hickory–Statesville (N. C.); and \$2.11 in Winston-Salem–High Point (N. C.). Among the classes of knitters shown separately, however, knitters of 42- and 45-gauge hosiery averaged less than \$2 an hour in each area. (See table 1.) Knitters of 60-gauge hosiery in the three areas for which data could be presented, had earnings averaging from 10 to 22 cents above the corresponding averages for all knitters combined.

Adjusters and fixers of knitting machines with 4 or more years' experience, were also among the higher paid occupations. Their earnings averaged \$1.96 in full-fashioned hosiery mills in Hickory–Statesville and more than \$2 an hour in each of the other areas.

Seamers, an occupation in which large numbers of women are employed, had average earnings ranging from \$1.22 in Hickory–Statesville to \$1.42 in Reading. Folding and boxing operations were generally among the lowest paid of the full-fashioned hosiery occupations studied, with area averages for women ranging from \$1.01 to \$1.18 an hour.

Reading usually had the highest average hourly earnings in the nine occupations for which comparisons could be made in all five areas; Hickory–Statesville had the lowest in a majority of instances. The differences between the highest and lowest area averages ranged from 18 to 44 cents an hour. Most occupational averages in Reading

were from 5 to 25 cents an hour higher than those in Philadelphia.

The gauge of hosiery produced in the mills studied ranged from 42 to 60. The majority of the knitters in each area, however, were knitting 51- to 60-gauge hosiery during the period studied. The number of sections per machine also differed, generally ranging from 24 to 32. In four of the five areas a majority of the knitters operated machines with 30 or 32 sections; in Philadelphia about a third were in that category at the time of the study.

TABLE 1.—*Straight-time average hourly earnings¹ for selected occupations in the full-fashioned hosiery industry, selected areas, October 1950*

Occupation and sex	Charlotte, N. C.	Hickory–Statesville, N. C.	Philadelphia, Pa.	Reading, Pa.	Winston-Salem–High Point, N. C.
<i>Plant occupations</i>					
Adjusters and fixers, knitting machines (4 or more years' experience) (men).....	\$2.18	\$1.96	\$2.11	\$2.12	\$2.08
Boarders (men and women).....	1.41	1.21	1.47	1.65	1.46
Men.....	1.37	1.23	1.45	(²)	1.51
Women.....	1.41	1.21	1.48	(²)	1.44
Boxers (women).....	(²)	(²)	1.01	(²)	(²)
Folders (women).....	(²)	(²)	1.11	1.02	(²)
Folders and boxers (women) ³	1.14	1.05	(²)	(²)	1.18
Examiners, grey (inspectors, hosiery) (women).....	1.14	1.14	1.07	1.34	1.24
Knitters, single-unit or backrack (men) ⁴	2.25	2.18	2.23	2.45	2.11
42 gauge, 24 sections.....	(²)	(²)	1.86	1.98	(²)
45 gauge, 24 sections.....	(²)	(²)	(²)	1.97	1.92
45 gauge, 26 sections.....	1.87	1.60	(²)	(²)	(²)
51 gauge, 24 sections.....	(²)	(²)	2.09	2.06	1.90
51 gauge, 26 sections.....	2.23	2.17	(²)	(²)	(²)
51 gauge, 30 sections.....	2.24	(²)	2.66	(²)	2.31
51 gauge, 32 sections.....	(²)	2.33	(²)	(²)	2.16
60 gauge, 30 sections.....	2.35	(²)	(²)	(²)	2.26
60 gauge, 32 sections.....	(²)	(²)	(²)	2.67	2.26
Loopers, toe (1 or more years' experience) (women).....	1.27	1.16	1.29	1.40	1.40
Menders, hand (women).....	1.30	1.29	1.28	1.46	1.31
Finish.....	(²)	1.29	1.34	1.44	1.31
Grey.....	(²)	1.30	1.23	1.47	1.30
Pairs (women).....	1.32	1.10	1.21	1.27	1.14
Preboarders (men and women).....	1.33	1.34	1.42	1.66	1.32
Men.....	1.56	(²)	1.50	(²)	1.48
Women.....	1.28	(²)	1.36	(²)	1.21
Seamers (women).....	1.35	1.22	1.30	1.42	1.24
<i>Office occupations—Women</i>					
Clerks, payroll.....	1.07	(²)	1.03	1.10	1.09
Clerk-typists.....	1.10	(²)	1.00	.97	(²)
Stenographers, general.....	1.23	(²)	1.17	1.16	1.09

¹ Excludes premium pay for overtime and night work.

² Insufficient data to permit presentation of an average.

³ Workers performing a combination job of folding and boxing.

⁴ Includes data for workers not shown separately.

Seamless Hosiery

Adjusters and fixers of knitting machines in the Winston-Salem-High Point (N. C.) area in October 1950 averaged \$1.55 an hour in men's seamless hosiery mills and \$1.49 in mills producing children's hosiery (table 2). In the other areas studied, the average hourly earnings of this group were \$1.41 and \$1.38, respectively, in men's hosiery mills in Hickory-Statesville (N. C.) and Reading (Pa), and \$1.28 in children's hosiery mills in Chattanooga (Tenn.). Area averages for men boarders (other than automatic) ranged from 88 cents to \$1.23 an hour.

Among the selected women's occupations, average earnings ranged from 80 cents for hand menders in Hickory-Statesville to \$1.14 an hour for string knitters in men's seamless hosiery mills in Winston-Salem-High Point. About four-fifths of the area averages for women's occupations were between 80 cents and \$1 an hour. Toe loopers, numerically the most important seamless

TABLE 2.—Straight-time average hourly earnings¹ for selected occupations in the seamless hosiery industry, selected areas, October 1950

Occupation and sex	Men's hosiery			Children's hosiery	
	Hickory-Statesville, N. C.	Reading, Pa.	Winston-Salem-High Point, N. C.	Chattanooga, Tenn.	Winston-Salem-High Point, N. C.
<i>Plant occupations—Men</i>					
Adjusters and fixers, knitting machines (4 or more years' experience).....	\$1.41	\$1.38	\$1.55	\$1.28	\$1.49
Boarders, other than automatic.....	.97	1.23	1.21	.88	1.00
Knitters, automatic.....	1.00	(2)	1.15	(2)	1.10
Knitters, rib.....	(2)	(2)	(2)	.99	(2)
Knitters, string.....	(2)	(2)	1.19	(2)	1.09
<i>Plant occupations—Women</i>					
Boarders, other than automatic.....	.88	(2)	1.09	.90	.93
Boxers.....	.86	(2)	(2)	(2)	(2)
Folders and boxers ³.....	.83	.87	1.03	.92	.91
Examiners, grey (inspectors, hosiery).....	.85	.83	1.98	.84	.92
Knitters, automatic.....	.92	.99	1.10	(2)	1.01
Knitters, rib.....	(2)	(2)	(2)	.92	(2)
Knitters, string.....	(2)	(2)	1.14	(2)	(2)
Knitters, transfer.....	.90	(2)	(2)	.96	.93
Loopers, toe (1 or more years' experience).....	.93	1.02	1.07	.95	1.05
Menders, hand.....	.80	.85	.94	.89	.83
Finish.....	.82	.85	.95	.94	(2)
Grey.....	.80	.85	.94	.86	(2)
Pairers.....	.86	.86	1.03	.96	.95
<i>Office occupations—Women</i>					
Clerks, payroll.....	1.04	.84	1.03	.96	.97
Clerk-typists.....	.96	.85	1.01	(2)	(2)
Stenographers, general.....	1.04	(2)	1.06	(2)	(2)

¹ Excludes premium pay for overtime and night work.
² Insufficient data to permit presentation of an average.
³ Workers performing a combination job of folding and boxing.

hosiery occupation studied, earned on the average, 93 cents, \$1.02, and \$1.07, respectively, in the three areas studied in the men's hosiery branch and 95 cents and \$1.05 in the two areas producing children's hosiery.

Virtually all area averages for men were from 5 to 12 cents an hour higher than for women in 4 occupations in which both were employed. In nearly all seamless hosiery occupations, for which comparisons of average earnings could be made among the areas studied, men's hosiery mills in Winston-Salem-High Point ranked highest.

A special study of men's seamless hosiery mills in the three areas showed that the immediate effects of the new 75-cent minimum wage established January 25, 1950, by amendment of the Fair Labor Standards Act were quite pronounced. The proportion of workers receiving less than 75 cents an hour in Hickory-Statesville dropped from 40 percent in October 1949 to 2 percent in March 1950; in Reading, from 31 to 3 percent; and in Winston-Salem-High Point, from 13 to 2 percent of all workers. The effects were even more evident when consideration is limited to women workers. In Hickory-Statesville, 51 percent of the women averaged less than 75 cents an hour in October 1949 as contrasted to 2 percent in March 1950; in Reading the respective percentages for the two periods were 38 and 2 and in Winston-Salem-High Point, 18 and 3.

The average hourly earnings of all workers in men's seamless hosiery mills in Hickory-Statesville increased from 83 cents in October 1949 to 90 cents in March 1950. In Reading, the corresponding averages were 88 cents and 94 cents and in Winston-Salem-High Point, \$1 and \$1.03. In October 1950, workers in these three areas averaged 93 cents, 99 cents, and \$1.09, respectively.

Related Wage Practices

A scheduled workweek of 40 hours was reported for virtually all establishments studied, except full-fashioned hosiery mills in Winston-Salem-High Point and seamless hosiery mills in Reading. In each of these areas about a fourth of the workers were employed in plants having work schedules longer than 40 hours, but not over 48 a week.

Second and third shifts were in operation in all areas; from 14 to 24 percent of the full-fashioned hosiery workers and 10 to 15 percent of those

employed in seamless hosiery mills in the various areas were working on second shifts. From 5 to 11 percent of the full-fashioned and 3 to 6 percent of the seamless hosiery workers were employed on third shift operations. Extra pay was provided for a majority of the second shift workers in only one full-fashioned and two seamless hosiery areas. Premium pay for third shift work was more prevalent.

Paid holidays, typically 5 days annually, were provided by full-fashioned hosiery mills employing most of the workers in Philadelphia and Reading, and about one of every nine workers in Winston-Salem-High Point. In the seamless hosiery branch, only one area reported any paid holidays for plant workers—about a fifth of the workers in Reading were in mills which granted 5 days.

Paid vacations of 1 week after a year's service were the usual practice in all five full-fashioned hosiery areas studied; in men's seamless hosiery mills in Reading and Winston-Salem-High Point; and in children's seamless hosiery plants in Chattanooga. A majority of the workers in seamless hosiery mills in the other areas studied were in plants which reported no provisions for paid vacations. Vacations were typically increased to 2 weeks after 5 years' service in full-fashioned hosiery mills in Charlotte, Philadelphia, and Reading and in men's seamless hosiery mills in Winston-Salem-High Point.

Insurance plans for which employers paid at least part of the cost were in effect in mills employing most full-fashioned hosiery workers in the areas studied. These plans included life insurance, hospitalization, and other health insurance. Such benefits were also available but to a much lesser extent in each seamless hosiery area. Retirement pensions were also provided in full-fashioned hosiery mills which employed a majority of the workers in Philadelphia and Reading. In the men's seamless hosiery branch, about a fifth of the workers in Reading and a fourth in Winston-Salem-High Point were in plants which had retirement pension plans.

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¹ Data collected by field representatives under direction of the Bureau's regional wage analysts. More detailed information on wages and related practices in each of the selected areas is available on request.

The study included establishments employing 21 or more workers. In plants of this size in the areas studied, approximately 30,500 workers were employed in full-fashioned hosiery mills, 13,000 in men's seamless hosiery and 3,500 in children's seamless hosiery mills.

Wood-Furniture Manufacturing: Earnings in October 1950¹

AVERAGE EARNINGS of wood-furniture workers rose from 3 to 12 cents an hour between September 1949 and October 1950 in 8 of 10 important manufacturing centers. Nearly three-fourths of the area averages for workers in selected plant occupations showed increases of 5 percent or more.

Increased earnings are largely attributed to general wage adjustments. The amendment to the Fair Labor Standards Act which provided for a 75-cent minimum rate as of January 25, 1950, was a minor factor in the upward movement of earnings. In September 1949, from 6 to 13 percent of wood-furniture workers in the 3 southern areas studied earned less than 75 cents an hour; in the other areas, the proportion was less than 3 percent. Los Angeles was the only area in which all wood-furniture workers had hourly earnings in excess of 75 cents in the 1949 period.

A supplemental study in the southern areas revealed that average earnings of all workers in Morganton-Lenoir (N. C.) did not change between September 1949 and March 1950; in both Martinsville (Va.) and Winston-Salem-High Point (N. C.), the difference amounted to 1 cent an hour. Less than 15 percent of the area averages for the selected plant occupations increased more than 2 cents during this period. The March 1950 data, of course, point up the fact that the immediate effect of the 75-cent minimum on the earnings of wood-furniture workers in the specified areas was slight.

Hourly Earnings

Average earnings of men in October 1950 ranged from 95 cents an hour in Martinsville (Va.) to \$1.42 in Los Angeles. (By area, from 82 to 97 percent of the plant workers in wood-furniture manufacturing were men.) Men had earnings levels exceeding \$1.00 an hour in all areas except the 3 in the South. In Winston-Salem-High Point (N. C.), they averaged 97 cents, and in Morganton-Lenoir (N. C.), \$1.00. Earnings of men did not differ by more than 5 cents an hour from the area averages of all workers combined.

Of men's selected occupations, sprayers ranked highest, earnings averaging at least \$1.40 an hour

in 7 of the 10 areas. General-utility maintenance men and shaper operators (who set up their machines) were also among the top-paid groups. Average earnings of these workers ranged from \$1.14 to \$1.73 and from \$1.10 to \$1.70, respectively. Machine off-bearers were the lowest-paid men in all 10 areas studied and earned, on the average, from 83 cents to \$1.19 an hour.

Women in Jasper-Tell City (Ind.), had average earnings of \$1.43 an hour, the highest area level in October 1950 for either men or women. These workers were predominantly employed under incentive systems, and were engaged primarily on jobs requiring more than the average skill and experience of women furniture workers. The fact that very few were employed as machine off-bearers, one of the lowest-paid jobs, is illustrative of this particular situation. In the other areas studied, women averaged from 79 cents in Martinsville to \$1.38 in Los Angeles.

Comparisons of earnings of men and women can be made in 2 of the selected occupations studied in October 1950. Average earnings of women machine off-bearers varied from 83 cents to \$1.24 an hour. These earnings were 2 cents and 11 cents

higher than those of men in 2 areas and from 3 to 13 cents lower in 4 areas. Women hand sanders, who averaged from 84 cents to \$1.48 an hour, earned from 1 to 12 cents more than men in 4 of 9 areas. In the other 5 areas the earnings advantage of men ranged from 6 to over 20 cents.

In Los Angeles, the leading area in 6 of the selected occupations, earnings levels were more than \$1.40 an hour in 10 of the 13 plant occupations. Most jobs in Chicago, the second ranking area, were from 7 to over 15 cents an hour lower, on the average, than those in Los Angeles. Of the 3 southern areas, occupational averages were generally highest in Morganton-Lenoir, most frequently by amounts within a 4 to 10 cent range. Earnings of plant workers in most occupations were roughly on the same level in Martinsville and Winston-Salem-High Point.

Related Wage Practices

A scheduled workweek of 40 hours prevailed in Chicago, Jasper-Tell City (Ind.), Los Angeles, and Martinsville (Va.). The most common work schedules in the other 6 areas were equally divided between 45 and 50 hours a week. From 12 to 15

Straight-time average hourly earnings¹ for selected occupations in wood-furniture establishments in selected areas, October 1950

Occupation and sex	Chicago, Ill.	Fitchburg-Gardner, Mass.	Grand Rapids, Mich.	James-town, N. Y.	Jasper-Tell City, Ind.	Los Angeles, Calif.	Martinsville, Va.	Morganton-Lenoir, N. C.	Rockford, Ill.	Winston-Salem-High Point, N. C.
<i>All Plant Occupations</i>										
All workers	\$1.31	\$1.14	\$1.30	\$1.29	\$1.27	\$1.42	\$0.95	\$0.99	\$1.26	\$0.96
Men	1.33	1.17	1.34	1.32	1.26	1.42	.95	1.00	1.31	.97
Women	1.11	1.02	1.08	1.05	1.43	1.38	.79	.85	1.06	.90
<i>Selected Plant Occupations</i>										
Men:										
Assemblers, case goods	1.43	1.21	1.46	1.52	1.46	1.44	1.00	1.04	1.43	.99
Assemblers, chairs	1.58	1.22	1.50	(?)	1.30	1.44	(?)	1.04	(?)	.93
Cut-off saw operators	1.40	1.08	1.39	1.31	1.16	1.55	(?)	1.19	1.29	1.03
Gluers, rough stock	1.27	1.30	1.23	1.21	1.25	1.43	.93	1.02	1.25	.92
Maintenance men, general utility	1.52	1.30	1.45	1.29	1.17	1.73	1.16	1.19	1.29	1.14
Off-bearers, machine	1.12	.96	1.01	1.05	1.14	1.19	.83	.85	1.13	.87
Packers, furniture	1.29	1.02	1.26	1.12	1.22	1.47	.88	.92	1.20	.90
Rubbers, hand	1.38	1.27	1.44	1.57	1.53	1.42	.85	.92	1.36	.92
Sanders, belt	1.49	1.29	1.46	1.42	1.37	1.47	1.09	1.10	1.48	1.00
Sanders, hand	1.22	1.30	1.21	1.39	1.36	1.26	.85	.94	1.22	.88
Shaper operators, hand, set-up and operate	1.56	1.24	1.48	1.34	1.37	1.70	1.10	1.15	1.56	1.10
Sprayers	1.55	1.40	1.49	1.65	1.41	1.64	1.00	1.07	1.48	1.01
Women:										
Off-bearers, machine	.99	.83	1.03	.97	(?)	(?)	(?)	(?)	1.24	.84
Sanders, hand	1.25	1.02	1.02	1.09	1.48	1.28	(?)	.84	1.16	.89
<i>Selected Office Occupations</i>										
Women:										
Bookkeepers, hand	1.54	1.16	(?)	(?)	1.25	1.45	(?)	(?)	(?)	1.09
Clerk-typists	1.11	.84	1.06	.89	.88	1.12	.98	(?)	(?)	.90
Stenographers, general	1.32	1.02	1.21	1.02	.99	1.24	1.16	1.13	1.18	1.02

¹ Excludes premium pay for overtime and night work.

² Insufficient data to permit presentation of an average.

percent of the men in Chicago, Jamestown (N. Y.), and Winston-Salem-High Point (N. C.) wood-furniture plants had workweeks longer than 50 hours. The hours of women plant workers were generally less than those of men in Fitchburg-Gardner (Mass.); Jamestown; Rockford (Ill.); and Winston-Salem-High Point.

Paid holidays were provided plant workers by establishments having about half or more of the total wood-furniture employment in 7 of the 10 areas studied. None of the plant workers in Martinsville and less than 10 percent in the 2 North Carolina areas received specified holidays with pay. Six paid holidays a year were most typical for plant workers in Chicago and Grand Rapids and from 3 to 5 days in most of the other areas. More liberal benefits were received by office workers in all areas; a large majority were granted either 5 or 6 days annually.

Paid vacations of 1 week after a year's service were common in all the areas studied. Most of the wood-furniture workers in Jamestown, however, were eligible for the 1-week vacation after 6 months of service. Two-week vacations after 5 years' service prevailed in most areas. The length of vacation for plant workers in Jamestown and Martinsville remained at 1 week, irrespective of

service. In the 2 North Carolina areas, plants employing nearly one-third and one-fourth of the wood-furniture workers, respectively, did not provide for vacation benefits.

Life insurance, group hospitalization, and other health insurance plans, for which employers paid part or all of the costs, were in effect in all areas studied. The coverage varied by area, generally ranging from about two-thirds to all of the industry employment, and by type of insurance. Retirement pension plans had not been widely adopted by the wood-furniture industry. In October 1950, such plans were reported by establishments in only 2 areas, Jasper-Tell City and Los Angeles; these establishments employed about 5 percent and 15 percent of the wood-furniture workers in their respective areas.

—CHARLES RUBENSTEIN
Division of Wage Statistics

¹ Data were collected by field representatives under the direction of the Bureau's regional wage analysts. More detailed information on wages and related practices in each of the selected areas is available on request.

The study included establishments employing 21 or more workers and manufacturing wood household furniture (except upholstered); wood cabinets for radios, television receivers, and sewing machines; and wood office furniture. Approximately 41,000 workers were employed in establishments of this size in the 10 areas studied.

Wage Chronology No. 14: Ford Motor Co., 1941-50

THE FIRST AGREEMENT between the Ford Motor Co. and the International Union, United Automobile, Aircraft & Agricultural Implement Workers of America (UAW-CIO) dealing with wage rates and related wage practices in the automotive plants of the company was negotiated in June 1941. The present chronology describes the major changes since that date. The provisions of the first agreement, as reported in this chronology, do not necessarily represent changes in prior conditions of employment.

The initial and subsequent agreements applied to all production and maintenance workers in the

company's numerous production and assembly plants and parts depots. The following were excluded: Superintendents, foremen, employees in the central staff and administrative offices, employees working exclusively for specified managerial offices, employees engaged in time studies and other industrial engineering work, plant protection and fire department employees, students in technical schools, professional employees and their assistants, farm employees, employees in marine operations, and cafeteria and dining-room employees.

The September 28, 1949, agreement, which was to continue in effect until April 1, 1952, was set aside on September 4, 1950, when a new agreement was signed. The present agreement, to continue without a reopening until June 1, 1955, covers approximately 112,000 workers.

A—General Wage Changes ¹

Effective date	Provisions	Applications, exceptions, and other related matters
June 20, 1941 (by agreement of June 20, 1941).	Classification increases averaging approximately 19 cents an hour.	Contract provided that company pay rates "in the several classifications at least as high as those paid by the major competitor . . . in its respective industry." ²
June 25, 1942 (by directive order of NWLB, Oct. 16, 1942).	-----	10 cents an hour increase to skilled tool and die makers and pattern makers.
June 25, 1942 (by directive order of NWLB, Oct. 24, 1942).	-----	6 cents an hour increase to skilled machine repair men, machinists, millwrights, and electricians; maximum of rate spreads increased 5 cents for skilled and semi-skilled maintenance, powerhouse, and construction workers.
Jan. 5, 1946 (by agreement of Feb. 26, 1946).	18 cents an hour increase---	Additional increase of 5 cents an hour to skilled maintenance workers, construction workers, jobbing molders in jobbing foundry, and coremakers.
May 31, 1947 (by agreement of Aug. 21, 1947).	11½ cents an hour increase---	
July 16, 1948 (by agreement of July 29, 1948).	13 cents an hour increase---	Increase designated as cost-of-living allowance to be adjusted up or down every 3 months in accordance with changes in BLS Consumers' Price Index. ³ Agreement also provided for increases of 4 cents an hour effective each June 1 from 1951 through 1954 as an "annual improvement factor." Additional increases of 5 to 28 cents an hour to production foundry workers and specified skilled classifications. 5-cent-an-hour bonus for hours worked at straight-time rate to employees on 40-hour rotating schedules on necessary continuous 7-day operations; not included in computing overtime, Sunday, holiday, afternoon, night, incentive, or vacation pay. Quarterly adjustment of cost-of-living allowance.
Sept. 1, 1950 (by agreement of Sept. 4, 1950).	8 cents an hour increase----	
Dec. 4, 1950 ⁴ -----	3 cents an hour increase----	
March 5, 1951 ⁵ -----	5 cents an hour increase----	Quarterly adjustment of cost-of-living allowance.

¹ General wage changes are construed as upward or downward adjustments affecting a substantial number of workers at one time. Not included within the term are adjustments in individual rates (promotions, merit increases, etc.) and minor adjustments in wage structure that do not have an immediate and noticeable effect on the average wage level.

The general changes listed in this chronology were the major changes affecting wage rates during the period covered. Because of omission of non-general changes in rates and other factors, the total of the general wage changes will not necessarily coincide with the movement of straight-time average hourly earnings.

² Industries specified were: auto, cement, glass, steel, and tires.

³ For details of cost-of-living provision, see Wage Chronology No. 9—General Motors Corp., 1939-49, MONTHLY LABOR REVIEW, September 1949.

⁴ The parties agreed to add 1.3 points to the BLS Consumers' Price Index in computing the cost-of-living allowance to compensate for the understatement of the index's rent component. The increase from the 0.8 point adjustment previously used was made on the basis of a new and more precise estimate issued by BLS.

⁵ On Mar. 3, 1951, the parties agreed to reinstate the 0.8 adjustment in computing the cost-of-living allowance.

B—Hiring and Minimum Job Rates (Detroit Plants) ¹

Effective date	Hiring rate	Minimum job rate	Effective date	Hiring rate	Minimum job rate
June 20, 1941-----	\$0. 85	\$0. 85	Sept. 1, 1950-----	² 1. 355	² 1. 355
Jan. 5, 1946-----	1. 03	1. 03	Dec. 4, 1950-----	² 1. 385	² 1. 385
May 31, 1947-----	1. 145	1. 145	Mar. 5, 1951-----	² 1. 435	² 1. 435
July 16, 1948-----	1. 275	1. 275			

¹ Applicable to lowest-paid classification.

² Includes cost-of-living allowance.

C—Related Wage Practices ¹

Effective date	Provisions	Applications, exceptions, and other related matters
<i>Shift Premium Pay</i>		
June 20, 1941.....	5 cents an hour premium pay for work on midnight and afternoon shifts.	
July 16, 1948.....	Increased to: 10 cents an hour for midnight shift and 7 cents an hour for afternoon shift.	
Sept. 28, 1949.....		Shifts defined as follows: Midnight, starting on or after 7 p.m. but before 5 a.m.; afternoon, starting on or after 10:30 a.m. but before 7 p.m.
Jan. 1, 1951.....	Increased to: 7½ percent of earnings, including overtime premium pay, for work on midnight shift and 5 percent for afternoon shift.	
<i>Overtime Pay</i>		
June 20, 1941.....	Time and one-half for work in excess of 8 hours a day or 40 a week.	
<i>Premium Pay for Saturday and Sunday Work</i>		
June 20, 1941.....	Time and one-half for Saturday work in excess of 40 hours. Double time for work on Sunday.	Employees on 7-day continuous operations working on Saturdays and Sundays received time and one-half only for time worked in excess of 8 hours a day and 40 a week.
Oct. 1, 1942 ² (by Executive Order 9240, Sept. 9, 1942)	Changed to: Time and one-half for work over 40 hours and double time for 7th day in any 7-day week.	Applicable to all employees including those on 7-day continuous operations. Time lost due to voluntary absence for a full day not counted for purpose of computing 7th day of work. Time lost due to involuntary absence for a full day counted for purpose of computing 7th day of work provided employee reported for work.
Sept. 23, 1945 (by letter of agreement dated Sept. 11, 1945)	Changed back to: Time and one-half for Saturday work in excess of 40 hours. Double time for work on Sunday.	Employees on 7-day continuous operations working on Saturdays and Sundays received time and one-half only for time worked in excess of 8 hours a day and 40 a week.
<i>Holiday Pay</i>		
June 20, 1941.....	Double time for work on 6 specified holidays. No payment for holidays not worked.	Holidays were: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, and Christmas. Not applicable to employees on 7-day continuous operations.
Oct. 1, 1942 (by Executive Order 9240, Sept. 9, 1942)	Changed to: Time and one-half for work on holidays.	Applicable to employees on 7-day continuous operations.
Sept. 23, 1945 (by letter of agreement dated Sept. 11, 1945).	Changed back to double time.....	Not applicable to employees on 7-day continuous operations who received no premium holiday pay.
Jan. 5, 1946.....		Employees on 7-day continuous operation paid time and one-half for work on holidays.
May 31, 1947.....	6 paid holidays established for which employees with seniority ³ receive 8 hours' straight-time pay. Double time (total) for holidays worked.	Applicable to employees on 7-day continuous operations.

C—Related Wage Practices¹—Continued

Effective date	Provisions	Applications, exceptions, and other related matters
<i>Paid Vacations</i>		
June 20, 1941----- July 1, 1942 (by directive orders of NWLB, Oct. 16 and Nov. 20, 1942).	No provision for paid vacations. 1-week vacation with 40 hours' pay at basic rates for employees with 1 but less than 5 years on the payroll and at least 1 year's seniority status; 2 weeks', or 80 hours' pay, with 5 or more years on the payroll and seniority status.	Employees not having received their vacation by last day of vacation period received pay in lieu of vacation.
Dec. 1, 1946-----		Employees required to be on payroll for at least 32 weeks in preceding year eligible for full vacation benefits. Half benefits paid to employees with 16 to 32 weeks' employment.
Dec. 1, 1947-----	Changed to: 1 week, or 40 hours' pay, for employees with 1 but less than 3 years' enrollment; 1½ weeks', or 60 hours' pay, for employees with 3 but less than 5 years; 2 weeks', or 80 hours' pay, for employees with 5 or more years. Employees must have 1, 3, and 5 years of seniority status, respectively.	
Dec. 1, 1949-----		New vacation eligibility date of June 1 added. Former eligibility date was December 1.
Dec. 1, 1950-----	Added: 3 weeks', or 120 hours' pay, for employees with 15 or more years on the payroll and seniority status.	
<i>Reporting Time</i>		
June 20, 1941-----	Minimum of 2 hours' pay guaranteed to employees called to work or not properly notified of lack of work.	Reporting time not paid for in case of labor dispute or other conditions beyond management's control. Guarantee to include night or overtime premium when applicable.
Oct. 16, 1942 (by directive order of NWLB, Oct. 16, 1942).	Reporting time increased to 4 hours-----	
<i>Insurance Benefits</i>		
June 20, 1941-----	Participation in purchase of life, sickness, accident, hospitalization, and surgical insurance. Major part of cost borne by employee. ⁴	Not covered by union agreement.
Dec. 1, 1948 (by agreement of July 29, 1948).	Revised and expanded plan made available. Part of cost borne by company. ⁵	Covered for first time by union agreement.
Jan. 1, 1950 (by agreement of Sept. 28, 1949).	Added: In-hospital medical benefits—maximum of \$4 a day up to 70 days. Cost borne by company.	
Jan. 1, 1951 (by agreement of Sept. 4, 1950).	Revised program made available at no additional cost to employees. Plan increased maximum life insurance and accidental death and dismemberment benefits. Weekly accident and sickness benefits increases ranged from \$5 to \$9 a week and new maximum benefits established. ⁶	
	Added: Company to pay one-half of Blue Cross and Blue Shield benefits for subscriber and eligible dependents. Company's contribution not to exceed one-half cost of similar coverage under Michigan plans.	

C—Related Wage Practices¹—Continued

Effective date	Provisions	Applications, exceptions, and other related matters
<i>Insurance Benefits—Continued</i>		
	Added: Retired group-insurance participants provided with company-paid life insurance of \$1,000 for 30 or more years' service, \$750 for 20 and under 30 years', and \$500 for 10 and under 20 years'.	
<i>Retirement Benefits</i>		
June 20, 1941-----	No provision for retirement benefits-----	
Mar. 1, 1950 (by memorandum of agreement dated Sept. 28, 1949, implemented and superseded by agreement of Mar. 16, 1950).	Noncontributory retirement plan established to provide normal retirement benefits of \$100 a month, including primary old-age benefits under Federal Social Security Act, to employees retiring at age 65 or older with 30 years' credited service. Employees aged 65 or older with less than 30 years' credited service to receive pensions equal to same proportion of \$100 as years of credited service bear to 30. Early retirement at reduced benefits for employees aged 60 to 65 with 30 years' credited service. Disability retirement benefits of \$50 a month, less any statutory disability benefits, to totally and permanently disabled employees aged 55 to 65 with 30 years' service. Entire cost borne by company.	Joint Board of Administration composed of 3 company and 3 union representatives and an impartial chairman to administer benefit structure of plan. Effective April 1, 1952 retirement to be automatic at age 68 with no future service credited after age 65. Retirement at 60 requires consent of company. Company may retire employees at age 65 on own initiative by reason of employee's inability to work efficiently.
Oct. 1, 1950 (by agreement of Sept. 4, 1950).	Revised to: Normal retirement benefits after 30 years' service increased to \$125, including primary old-age benefits under Federal Social Security Act. Proportionately reduced benefits for employees with less than 30 years' service. Total and permanent disability benefits changed to \$3 a month for each year of credited service up to 30 years, with a minimum of \$50 less any statutory disability benefits, for totally and permanently disabled employees aged 50 to 65 with at least 15 years' credited service.	Future service creditable to age 68.

¹ Last entry under each item represents most recent change.² Period covered by Executive Order 9240 was Oct. 1, 1942, to Aug. 21, 1945.³ Under Aug. 21, 1947, agreement, employees established seniority after probationary period of 6 months' continuous employment. Probationary period was reduced to 3 months' continuous employment by Sept. 28, 1949, agreement, but holiday plan was amended to require employees to have seniority status and 6 months' service as of date of holiday to be eligible for holiday pay. Under Sept. 4, 1950, agreement, 6 months' service requirement was eliminated.⁴ Plan provided: \$1,500 life insurance, \$15 weekly accident and sickness benefits, \$5 daily hospital expenses, \$30 maximum benefits for special hospital services, and \$150 maximum surgical expenses. Monthly cost to employee was \$2 and was increased to \$2.90 on Mar. 1, 1942, without change in benefits.⁵ Plan provided: \$2,000-\$4,000 life insurance, \$1,000-\$2,000 accidental death and dismembership benefits, and \$18-\$30 weekly accident and sickness disability benefits for 26 weeks. Monthly cost ranged from \$1.72 for employees earning under \$1.10 an hour to \$3.44 for employees earning \$1.90 an hour and over. Blue Cross hospitalization and Blue Shield surgical insurance available at employee's expense.⁶ Plan provided:

Basic hourly rate	Benefits				Monthly cost to employee*
	Life insurance	Accidental death and dismemberment	Weekly accidental and sickness disability (up to 26 weeks)	In-hospital medical expenses (maximum)	
Up to but less than \$1.30----	\$2,400	\$1,200	\$30.60	\$280	\$2.07
\$1.30 but less than \$1.50----	2,800	1,400	33.20	280	2.41
\$1.50 but less than \$1.70----	3,200	1,600	35.80	280	2.76
\$1.70 but less than \$1.90----	3,600	1,800	38.40	280	3.10
\$1.90 but less than \$2.10----	4,000	2,000	41.00	280	3.44
\$2.10 and over---	4,400	2,200	43.60	280	3.79

*Company pays balance.

NOTE: For purpose and scope of wage chronology series, see Monthly Labor Review, December 1948. Reprints of this chronology are available upon request.

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Wage Chronology No. 9: General Motors Corp.¹

Supplement No. 1

WAGE-ADJUSTMENT ARRANGEMENTS contained in the May 1948 agreement between the General Motors Corp. and the UAW-CIO were extended for another 5 years by the May 1950 contract, negotiated a few days prior to the expiration of the 1948 agreement. The annual increase in wage rates, identified as a standard-of-living improvement factor, was raised by 1 cent an hour to 4 cents, effective on May 29, 1950, and on May 29

of each year thereafter. Provisions relating to quarterly adjustments of the cost-of-living allowance were carried forward without change (see basic chronology). A new pension plan financed by the company was established and the benefits under the contributory insurance plan already in effect were increased. The 5-year agreement contains no provision for reopening on wages or other matters.

The basic chronology covering the period from 1939 to September 1949 is brought up to date by the following additions. Each quarterly review of the cost-of-living allowance is listed.

¹ See Wage Chronology No. 9—General Motors Corp., 1939-49, Monthly Labor Review, September 1949.

A—General Wage Changes

Effective date	Provision	Application, exceptions, and other related matters
Dec. 1949.....	No change.....	Quarterly cost-of-living review.
Mar. 6, 1950.....	2 cents an hour decrease.....	Quarterly adjustment of cost-of-living allowance, reducing allowance to 3 cents an hour.
May 29, 1950.....	4 cents an hour increase.....	Annual improvement factor applied to base rate of each wage classification. Additional 5 cents an hour to skilled employees in maintenance, tool and die, pattern, and engineering departments.
June 1950.....	No change.....	Quarterly cost-of-living review.
Sept. 5, 1950.....	5 cents an hour increase.....	Quarterly adjustment of cost-of-living allowance, increasing allowance to 8 cents an hour.
Dec. 4, 1950 ¹	3 cents an hour increase.....	Quarterly adjustment of cost-of-living allowance.
March 5, 1951 ²	5 cents an hour increase.....	Quarterly adjustment of cost-of-living allowance.

¹ Parties agreed to add 1.3 points to the BLS Consumers' Price Index in computing the cost-of-living allowance to compensate for the understatement of the index's rent component. The increase in the previous 0.8 point ad-

justment was made on the basis of a new estimate made by BLS.

² On Mar. 3, 1951, the parties agreed to reinstate the 0.8 adjustment in computing the cost-of-living allowance.

B—Hiring and Minimum Job Rates (Automobile Plants in Michigan)¹

Effective date	Hiring rate ²	Minimum job rate ²	Effective date	Hiring rate ²	Minimum job rate ²
Mar. 6, 1950.....	\$1. 21	\$1. 31	Dec. 4, 1950.....	\$1. 33	\$1. 43
May 29, 1950.....	1. 25	1. 35	Mar. 5, 1951.....	1. 38	1. 48
Sept. 5, 1950.....	1. 30	1. 40			

¹ Applicable to the lowest-paid classification in all General Motors plants in Detroit and in the company's automobile manufacturing plants elsewhere in Michigan.

² Includes cost-of-living allowance.

C—Related Wage Practices

Effective date	Provisions	Applications, exceptions, and other related matters
<i>Shift Premium Pay</i>		
May 29, 1950.....	-----	Third-shift premium pay applicable to regular shift scheduled to start between 10:00 p. m. and 4:45 a. m. and to special shifts for which half or more of scheduled hours are between 12 midnight and 8:45 a. m.

C—Related Wage Practices—Continued

Effective date	Provisions	Applications, exceptions, and other related matters
<i>Pay in Lieu of Vacation</i>		
May 29, 1950-----	Added: 120 hours' straight-time pay for employees with 15 or more years' seniority.	Two eligibility dates, June 30 and December 31, established on which employees may qualify for vacation pay. Previously, there was one eligibility date.
<i>Group Insurance Plan</i>		
Sept. 1, 1950-----	Contributory insurance plan amended to provide, at no extra cost to employees, additional \$500 in life insurance, \$250 in accidental death insurance, \$14 a week in sickness and accident benefits, \$10 a month in total disability benefits, and establishment of in-hospital doctor attendance benefits up to \$5 a day for maximum of 70 days. ¹ Added: Hospitalization and surgical benefits—company to contribute half the cost of Blue Cross and Blue Shield hospitalization and surgical insurance, up to level of Michigan plans, for employees and dependents.	
<i>Pension Plan</i>		
Oct. 1, 1950-----	Noncontributory retirement plan established to provide pensions to employees retiring at 65 or older with at least 10 years' service. Company pension—\$1.50 a month for each year of service up to 30 years, to be supplemented by Federal Social Security benefits. Minimum pension including Social Security benefits: \$4 a month for each year of service up to 25 years. Reduced annuities for retirement between 60 and 65. <i>Disability retirement:</i> For employees totally disabled at age 50 or older with 15 or more years' service—\$3 a month for each year of service up to 30, with \$50 minimum, including statutory disability benefits. Regular pension upon reaching 65. Entire cost borne by company.	Joint board of administration composed of three company and three union representatives and an impartial chairman to administer the benefit structure of plan. Effective Jan. 1, 1952, retirement automatic at age 68 except at company's option.

¹ Revised schedule of benefits:

Base hourly rate	Benefits							Employee's contribution (weekly)*
	Before age 65		Before age 60	Before retirement		Continuing life insurance after 65		
	Life insurance	Accidental death insurance	Monthly disability (up to 50 weeks)	Weekly sickness and accident (up to 26 weeks)†	In hospital attendance	From minimum with 10 years in plan	To maximum with 20 years in plan	
Under \$1.13-----	\$2,500	\$1,250	\$50	\$28.00	} Up to \$5 a day for maximum of 70 days	\$500	\$600	\$0.40
\$1.13 and under \$1.38-----	3,000	1,500	60	31.50		500	750	.50
\$1.38 and under \$1.63-----	3,500	1,750	70	35.00		500	900	.60
\$1.63 and under \$1.82-----	4,000	2,000	80	38.50		525	1,050	.70
\$1.82 and under \$2.13-----	4,500	2,250	90	42.00		600	1,200	.80
\$2.13 and over-----	5,000	2,500	100	45.50	675	1,350	.90	

*Company pays balance of costs. †Sickness and accident benefits begin on 1st day of accident and 8th day of sickness except in hospital cases. 6 weeks' maternity benefits allowed.

Wage Chronology No. 5: Chrysler Corp.¹

Supplement No. 1

THE MAY 1948 agreement between the Chrysler Corp. and the United Automobile, Aircraft and Agricultural Implement Workers of America (UAW-CIO), which was to run to August 1, 1950, was reopened for wage discussions in June 1949. Negotiations conducted intermittently over a long period were broadened to include pension and insurance plans. Following a 100-day strike a settlement was reached on May 4, 1950.

The 1950 contract replacing the May 1948 agreement had a 3-year term. On August 25, 1950, without a formal wage reopening and without modifying the terms of the contract, agreement on a general wage increase was reached by the parties. On December 11, 1950, the parties set aside the 3-year agreement and negotiated a 5-year contract without reopening provisions.

The changes provided by the May 1950 agreement, by the company's action less than 4 months later, and by the December 11, 1950, contract are described in the following tabulation that brings the 1939-48 wage chronology up to date.

¹ See Wage Chronology No. 5—Chrysler Corp., 1939-48, Monthly Labor Review, April 1949.

A—General Wage Changes

Effective date	Provisions	Applications, exceptions, and other related matters
May 8, 1950 (by agreement of May 4, 1950).	-----	Wage increases or provisions for automatic progression affecting employees in 45 job classifications. 3 cents an hour increase to all employees in plants at Kokomo, New Castle, and Evansville, Ind.
Aug. 28, 1950 (by company action of Aug. 25, 1950).	10 cents an hour increase-----	Additional increase of 5 cents an hour to skilled workers.
Dec. 18, 1950 (by agreement of Dec. 11, 1950).	1 cent an hour increase-----	Plus previous 10-cent increase designated as cost-of-living allowance, which may be adjusted up or down every 3 months in accordance with changes in BLS Consumers' Price Index. ¹ Agreement also provided for increases of 4 cents an hour effective each June 1 from 1951 through 1954 as an "annual improvement factor."
March 5, 1951 ² -----	5 cents an hour increase-----	Additional adjustments in classification to employees on 7-day operations, pattern makers on foundry work, and die dummy builders. Quarterly adjustment of cost-of-living allowance.

¹ For details of cost-of-living provision, see Wage Chronology No. 9, General Motors Corp., 1939-49, Monthly Labor Review, September 1949. In addition the parties agreed to add a 1.3 point adjustment to the BLS Consumers' Price Index in computing the cost-of-living allowance to compensate for the

understatement of the index's rent component.

² On Mar. 3, 1951, the parties agreed to reinstate the 0.8 adjustment in computing the cost-of-living allowance.

B—Hiring and Minimum Job Rates (Detroit Plants)¹

Effective date	Hiring rate	Minimum job rate
Aug. 28, 1950-----	\$1. 35-----	\$1. 45.
Dec. 18, 1950-----	\$1. 36 ² -----	\$1. 46. ²
Mar. 5, 1951-----	\$1. 41 ² -----	\$1. 51. ²

¹ Applicable to lowest paid classification.

² Including cost-of-living allowance.

C—Related Wage Practices—Continued

Effective date	Provisions	Applications, exceptions, and other related matters
<i>Retirement Benefits—Continued</i>		
Mar. 1, 1951 (by agreement of Dec. 11, 1950).	<p>Changed to: Pension of employees retiring at or after 65 with 10 or more years' service to be greater of: (1) \$1.50 a month for each year of credited service up to 30 years, not including Federal Social Security benefits, or (2) \$4 a month for each year of credited service up to 25 years, including primary benefits under Federal Social Security Act. Employees aged 60 but under 65 with 15 years' service to receive reduced benefits.</p> <p><i>Disability retirement:</i> \$3 a month for each year of credited service up to 30 years, or \$50 a month, including in either case statutory disability benefits, to employees totally disabled after age 55 and before 65 with 15 years' service.</p>	

General Wage Regulations 6-10 and Ceiling Price Regulations 2-7¹

THE WAGE STABILIZATION BOARD formulated a new wage policy, and the Office of Price Stabilization issued several regulations liberalizing the general price freeze, during February and early March 1951. In line with these, certain policies for permitting exceptions from general wage-price stabilization under the Federal program were adopted.

Wage Regulations

The Economic Stabilization Administrator on February 27, 1951, approved General Regulation 6 (General Wage Formula), exactly as adopted by the public and industry members of the WSB. It permits increases in wage and salary levels up to 10 percent over January 15, 1950, levels. Labor members of the Board withdrew from active participation on February 16, in protest against the new wage formula, but prior to their withdrawal, the WSB unanimously approved General

Regulation 7, on February 15, permitting religious, charitable, and educational institutions, which are exempt from Federal income taxes, to make wage adjustments without prior approval of the Board.

The new regulation (GR 6) replaces the general over-all wage freeze as outlined in General Wage Stabilization Regulation 1, of January 26, 1951,² and provides opportunity for adjustments of wages and salaries by permitting increases in the general level of wages and salaries up to 10 percent above the base period of January 15, 1950, without further Board approval. Wage and salary levels since the base period "include time and incentive earnings, commission rates, and actual or prorated sums of any regularly paid bonuses and night shift differentials, but exclude overtime premium payments, employer contributions to or payments of insurance or welfare benefits, employers contributions to pension funds or annuities, and other like allowances." In figuring increases between January 15, 1950, and the effective date of GR 6, overtime premium payments and other "fringe" benefits are excluded if secured between those dates, but any such allowances granted in the

future must come within the 10 percent total. The 10 percent formula is effective until July 1, 1951 and prior to that time "shall be reviewed in the light of" the April 1951 Consumers' Price Index of the Bureau of Labor Statistics.

Coincident with his approval, the Economic Stabilization Administrator requested the WSB to prepare the following modifications to General Regulation 6: (1) Continuation of all existing escalator clauses to June 30, 1951, even though general increases then under way amount to more than 10 percent; (2) provision for productivity increases, now in effect, to operate until June 30, 1951; (3) exclusion of certain employer contributions for health, welfare, and pension plans from the 10 percent formula; (4) provision for special adjustments for "hardship" and "inequity" cases; (5) provision to cover wage schedules in new plants; (6) exemption of some industries from wage control; and (7) authorization of "tandem" adjustments for unorganized workers.

Orders on three of the suggested modifications were issued by the Economic Stabilization Administrator. Cost-of-living increases, provided by escalator clauses and wage and salary plans, executed or formally determined and communicated to employees on or before January 25, 1951, were permitted to be operative, without Board approval, even though general increases then under way amount to more than 10%, by General Regulation 8 of March 1 and Amendment 1 to the regulation dated March 8, 1951. However, any increases in wages agreed upon or formally determined and communicated to employees after January 25, 1951, together with cost-of-living increases, shall not exceed the 10% formula as outlined in General Regulation 6. It further permits approval of escalator clauses that are based on recognized indices other than the Bureau of Labor Statistics. The regulation was issued after consultation with industry and labor representatives, the Administrator stated, and after consideration had been given to their recommendations. The regulation as amended, is retroactive to March 1, 1951, and shall terminate June 30, 1951.

Wage schedules for new plants were outlined in General Regulation 9 issued March 8, 1951. The term "new plant" is defined as a "plant, enterprise, or other employment unit, which on January 25, 1951, had not commenced the production of

the materials or services for which it is established or converted." In general, wages shall be based on rates in existing plants of the same employer or on comparable jobs in a comparable industry in the same local market area, or most nearly comparable labor market area. Wage rates for new plants that are scheduled for operation on or prior to April 15, 1951, do not require initial Board approval, but are subject to later review. However, in plants scheduled for operation after April 15, all wage schedules must be reported and approved before becoming effective. In formulating this regulation the Administrator stated that "it has been impracticable to consult formally with industry and labor representatives."

Tandem wage adjustments that were in process preceding the general over-all wage freeze of January 26, 1951, were authorized by General Regulation 10, issued on March 8, 1951, if employers concerned can demonstrate they contemplated such a move by February 9, 1951. A "tandem" relationship is defined as a well-established and consistently maintained practice, where the timing, amount and nature of wage increases of a certain unit have so followed those of another unit of employees of the same employer or other employers in the same industry and the same market area, that an increase would have been in effect and applicable to work performed on or before February 9, 1951, but for the over-all general wage freeze. The regulation is effective until June 30, 1951. In formulation of this regulation, the Administrator stated that "formal consultation with industry and labor representatives has been impracticable and unnecessary."

Price Regulations

Recent series of ceiling price regulations issued by the Office of Price Stabilization, amended the over-all price stabilization as outlined in General Ceiling Price Regulation of January 26, 1951.² In general, these regulations have covered price control of individual items, such as cattle hides, kips, calfskins, coal, anthracite, iron and steel scrap, and fats and oils, at different market levels. (Ceiling Price Regulations 2 through 6).

A different type of price control (mark-up method) for "a large segment of retail trade, covering a substantial share of the sales of department, apparel, furniture, mail order, and general

merchandise stores," was provided in Ceiling Price Regulation 7, effective February 27, 1951. The regulation fixes ceiling prices for sales by retailers of a wide range of consumer goods, such as clothing, shoes, household textile commodities, yard goods, and furniture, rugs and lamps. The OPS estimates that "as many as 200,000 firms are engaged in the sale at retail of commodities covered by this regulation."

The retailer's ceiling price for each article will be, in general, the price he charged on February 24, 1951. However, the regulation provides methods for adjustments, based on the retailer's average mark-up, if the cost of goods he buys for

resale has gone up or down since February 24, 1951. Other retail commodities will be covered by subsequent orders.

Ceiling prices for new passenger automobiles, established by Ceiling Price Regulation 1,² of the OPS, were increased 3½ percent, by Amendment 1 (effective March 2, 1951) to that regulation.

¹ Sources: Federal Register, Vol. 16, No. 38, February 24, 1951 (p. 1791). No. 40, February 28, 1951 (p. 1872), No. 41, March 1, 1951 (p. 1951), No. 43, March 3, 1951 (pp. 2030, 2032), No. 48, March 10, 1951 (pp. 2222-2223), Economic Stabilization Agency, Ceiling Price Regulations No. 1 (Dec. 18, 1950), No. 2 (Jan. 25, 1951), Nos. 3 and 4 (Feb. 2, 1951), No. 5 (Feb. 5, 1951); No. 6 (Feb. 14, 1951), No. 7 (Feb. 27, 1951), press release February 27, 1951; Washington Post, February 16, 1951.

² For discussion, see Monthly Labor Review for March 1951 (p. 282).

Employers' Military-Leave Policies: Effect on Benefit Plans, Fall 1950

TIME SPENT in military service is to be credited toward service for pensions in at least three-fourths of the companies having such plans, according to recent surveys of the Bureau of National Affairs and the National Industrial Conference Board, respectively.¹ Most group-insurance policies, especially life insurance, are likely to be canceled within 6 months after the employee's departure for service. However, employers will support, in varying degree, the servicemen's Government life insurance in a limited number of cases. On the other hand, payment for unused but earned vacations is currently the general rule.²

Although the impact of mobilization has been directly felt by many employers since June 1950, it was not until August and September, according to the NICB preliminary study, that definite policies on military leave began to evolve for a number of companies. The BNA study indicates that it was still early for summing current policies, as these may be liberalized in the face of intensive mobilization and other causes. The studies were intended to cover policies and practices beyond selective-service requirements.

In general, the draft law guarantees reemployment (under certain conditions) to an employee who leaves a position "other than temporary" to enter the Armed Forces.³ Upon reinstatement, he is to be considered as having been on furlough or leave of absence during his period of military training and service. Among other guarantees, is his right to participate in insurance or other benefits offered by the employer according to "established rules and practices relating to employees on furlough or leave of absence" which were in effect at the time of leaving.⁴

Pension Plans

Over 90 percent of the companies studied by NICB and about 75 percent of the companies surveyed by BNA having pension plans credit time spent in military service toward pension requirements.

	Companies having pension plans	Number crediting leave time
BNA survey.....	358	267
Noncontributory plans.....	168	129
Contributory plans.....	156	114
Both types or combination.....	34	24
NICB survey.....	153	140
Noncontributory plans.....	82	70
Contributory plans.....	71	70

Of the companies surveyed by NICB which credit military-leave time to noncontributory pensions, three out of four will continue their contributions during leave or on the employee's return. The other companies will suspend contributions during this period.⁵

Conversely, of the companies studied by NICB which apply service time to contributory pensions three out of four are suspending all payments during the leave period. No further funding is made until the employee returns. Some of these will permit the employee to buy back his leave time on return, in which case the company will also pay its share. If this option is not exercised, the pension will be diminished on retirement. The only exception made is for plans which guarantee a minimum pension on retirement, in which case the company will contribute whatever is necessary to meet that minimum. In 15 percent of the contributory plans, the company will pay both shares during military leave.

In the BNA study, 35 of the 114 companies having contributory plans which credit time in military service to pensions will make up all contributions for the employee during leave (depending in some cases on his return). In 27 companies, the serviceman who wishes to have his time in company service count in the computation of his pension must continue contributions at the usual rate, with deferral in some instances upon return to the company, when a gradual repayment plan goes into effect. Contributions cease altogether during the period of military service in 31 companies (with interim financing not defined).⁶

Group Insurance Plans

Some form of group-insurance plan was reported by 474 of the 500 companies surveyed by BNA. However, less than a tenth having such plans will definitely continue to cover employees who are in military service.⁷ More than two-thirds of the companies definitely discontinuing protection will do so within a month or less after the employee's departure. Hospitalization and surgical coverage, according to the report, are invariably dropped because these services are made available to the serviceman through the Federal Government. Group life insurance will occasionally be continued. About 7 percent of all companies studied will contribute to the cost of the employee's National

Service Life Insurance premiums during military service, most of them for the entire period.

A total of 370 companies in the BNA study have some group insurance benefit plan for dependents, most of these being for hospitalization and surgical expenses.⁸ When the employee enters military service, 207 employers will discontinue insurance for dependents; 109 will continue the protection.⁹ In the latter group of employers, a number require the serviceman to pay all costs.

Of the 169 companies reported by NICB as having group life-insurance plans, only 12 percent will continue coverage after the employee enters military service. The remainder will cancel policies; moreover, 70 percent will do so within 31 days. Slightly less than 20 percent of the companies canceling group life insurance are planning to contribute to the serviceman's National Service Life Insurance premiums, nearly all for the leave period.

Under contributory plans, which predominate (127), coverage will be continued by 10 percent of the companies, provided the serviceman makes his contributions and the insurance carriers continue to permit coverage at existing rates.¹⁰ Eight employers, however, will assume entire cost during military leave.

Of 106 companies reporting to NICB as providing group hospitalization insurance for dependents, 32 will continue this during military leave. In only 13 of the 98 [additional] plans which provide Blue Cross hospitalization to dependents and 11 of the 68 Blue Shield [surgical] plans covering a similar category, protection will be continued. Most of the Blue Cross and Blue Shield plans are either completely employee or jointly financed.

Vacation and Bonus Plans

About 85 percent of companies studied by BNA grant vacation pay when employees leave for military service. Many pay only for vacation time which the employee has earned or for which he has qualified, and which has not been used before departure. Under a few plans, departing employees are paid for all the current year's unused vacation, plus a prorated part of the following year's vacation. More than a fourth of the companies indicated that they relax normal vacation eligibility standards in some way for returning servicemen.

Virtually all employers studied by NICB pay for vacations fully earned but unused before entering service. Two-fifths, in addition, grant prorated vacation pay for time earned toward the next vacation.

Some type of "induction" bonus (above any accrued vacation pay) is given to employees leaving for military service by almost two in three companies reporting in the NICB preliminary survey. Three-fifths of such employers graduate the amount according to length of service with the company.

Less than one in three companies of the BNA survey give bonuses to employees departing for military service, over and above any unused vacation pay that may be granted. About a third of these are graduated to the employee's time with the company. Virtually no differences were reported as to policy between salaried and hourly employees. In one out of twelve companies granting bonuses, such payments at the time of the study were restricted to draftees.

¹ The BNA study (Military Leave Policies of 500 Corporations, Washington 1950) presents data for policies in effect in September and October 1950. Its statistics take account of an appreciable number of companies which reported as holding decisions in abeyance at the time on specific practices in question. Nearly three-fifths of all companies stated that they dealt with unions on one or more phases of military leave; this impact, however, was not measured for specific policies.

NICB data (in Management Record, Oct. and Nov. 1950) consists of two studies: one based on replies from 180 companies as to military leave and employee-benefit plans, and an earlier preliminary report covering information from 150 companies primarily on military leave and separation bonus. Neither survey furnishes material on the influence of union agreements in these fields. [Since the current article went to press, the National Industrial Conference Board has issued a later report—Company Military Leave Policies, Studies in Personnel Policy, No. 114, March 1951.]

For recent statistics on the number of workers in the United States covered by negotiated pension, health, and welfare plans, see Employee-Benefit Plans under Collective Bargaining, Mid-1950, in Monthly Labor Review, February 1951 (p. 156).

² The term "benefit plans" is here used to include other programs beyond those of pensions, health, and welfare, and includes vacation and "induction" bonus plans (discussed in this article), as well as profit-sharing and annual bonus payments.

³ Covers inductees, enlistees, and reservists who enter on active duty in the U. S. Armed Forces, Coast Guard, or U. S. Public Health Service.—Veterans' Reemployment Rights: Question and Answer Handbook, U. S. Department of Labor, Bureau of Veterans' Reemployment Rights, Washington, 1950 (p. 2; see also pp. 8, 46-51).

⁴ Selective Service Act of 1948 as amended, Sec. 9 (c) (1).—*Ibid.* (pp. 76, 79).

⁵ The BNA study does not furnish data on interim financing of noncontributory pension plans which grant credit for military-service time.

⁶ Of the remaining 21 companies, 18 were undecided and 3 did not reply.

⁷ 32 companies reached no decision.

⁸ This study does not specify the number of companies having hospitalization and surgical plans.

⁹ In addition, 52 companies reached no decision; 2 did not reply.

¹⁰ As to the general situation, the NICB states: "A great number of the companies canceling the coverage report that their insurance carriers either refuse to extend group coverage to employees in service, or have instituted prohibitively high war risk premiums."—Management Record, Nov. 1950 (p. 410).

Status of Labor Banks, 1950

ASSETS of the four labor banks increased by 2.3 percent in 1950 over 1949, deposits by 2.5 percent, and capital, surplus, and undivided profits by 3.9 percent. As indicated in table 1, three of the four banks showed gains in all three items, but in the fourth both deposits and assets fell.

TABLE 1.—Condition of labor banks as of Dec. 31, 1949, and 1950¹

Bank and date	Capital, surplus, and undivided earnings	Deposits	Total assets
All banks:			
Dec. 31, 1949.....	\$4,916,424	\$88,571,474	\$95,396,635
Dec. 31, 1950.....	5,108,595	90,830,708	97,558,529
Amalgamated Trust & Savings Bank, Chicago, Ill.:			
Dec. 31, 1949.....	1,765,000	34,444,050	36,770,765
Dec. 31, 1950.....	1,769,000	35,088,123	37,557,093
Brotherhood State Bank, Kansas City, Kans.:			
Dec. 31, 1949.....	558,148	9,883,592	10,494,989
Dec. 31, 1950.....	567,846	10,719,896	11,319,742
Union National Bank, Newark, N. J.:			
Dec. 31, 1949.....	391,841	7,971,597	8,772,186
Dec. 31, 1950.....	546,928	9,255,599	10,072,270
Amalgamated Bank of New York, N. Y.:			
Dec. 31, 1949.....	2,201,435	36,272,235	39,358,694
Dec. 31, 1950.....	2,224,820	35,767,090	38,609,423

¹ Information supplied by Industrial Relations Section, Princeton University.

These four banks, the only labor banks that reopened after the "bank holiday" in 1933, have increased their assets in the past 15 years by more than 300 percent (table 2). In the same period, the deposits have increased more than fourfold, while capital, surplus, and undivided profits have more than doubled.

TABLE 2.—Development of labor banks in the United States, 1920-50

Date	Number of banks	Capital, surplus, and undivided profits	Deposits	Total assets
Dec. 31—				
1920.....	2	\$1,154,446	\$2,258,561	\$3,628,867
1925.....	36	12,536,901	98,392,592	115,015,273
June 30—				
1930.....	14	7,217,836	59,817,392	68,953,855
1935.....	4	2,051,943	17,262,281	19,692,385
1940.....	4	2,684,911	23,847,294	26,931,651
1945.....	4	3,428,078	72,776,529	76,509,121
1947.....	4	5,052,138	89,549,666	95,245,931
1948.....	4	5,119,499	89,181,399	95,156,593
Dec. 31—				
1949.....	4	4,916,424	88,571,474	95,396,635
1950.....	4	5,108,595	90,830,708	97,558,529

Legal Restrictions on Night Work by Women ¹

IN 18 STATES and the Territory of Puerto Rico, night work by women in specified industries is either prohibited or regulated. In 13 States—California, Connecticut, Delaware, Indiana, Kansas, Massachusetts, Nebraska, New Jersey, New York, North Dakota, South Carolina, Washington, Wisconsin—and in Puerto Rico, such work is prohibited by law for one or more industries. Six of these States—California, Connecticut, Delaware, Kansas, South Carolina, Wisconsin—

and Puerto Rico, have also established regulations to cover women's night work in certain other industries or under certain conditions.

Maryland, New Hampshire, New Mexico, Pennsylvania, and Utah do not prohibit night work by women, but have provided regulations to restrict it in specified industries.

The industries or occupations in which women's night work is prohibited or regulated, and the nature of the restrictions in effect on November 1, 1950, are tabulated below, by State.

¹ U. S. Department of Labor, Women's Bureau: Digest of State Laws Relating to Night Work for Women, Nov. 1, 1950.

State	Industry or occupation covered	Nature of restriction
California	Driving taxicabs or automobiles for hire. Manufacturing; personal service; canning and preserving; professional, technical, clerical, and similar occupations (exempts exchange operators of a small telephone company whose duties are incidental to other duties); public housekeeping (exempts graduate nurses and nurses in training in accredited school); laundering, dry cleaning, and dyeing; mercantile establishments; transportation; industries handling farm products after harvest; amusement and recreation (exempts performers whose activities involve exercise of artistic talent or athletic proficiency). Motion picture (exempts women who act, sing, dance, or otherwise perform). <i>Exceptions</i> (from all classifications above): Women employed in administrative, executive, or professional capacities, as defined in orders; women engaged in the professions.	Work by women prohibited from 8 p.m. to 6 a.m. Unless suitable transportation is available, women may not be required to report for work or be dismissed from work between 10 p.m. and 6 a.m. If women work during those hours and a meal period occurs within that time, facilities must be available for securing hot food or drink, or for heating food and drink, and a suitable sheltered place for eating must be provided. When women are dismissed at night too late for public transportation, employer must provide transportation.
Connecticut	Bowling alley, shoe-shining establishment, poolroom. Manufacturing (includes public laundry), mechanical, or mercantile establishment; restaurant, cafe, dining room, barber shop, hair-dressing or manicuring establishment, photograph gallery. <i>Exceptions</i> : Professional employees and display workers in such establishments; musicians or other entertainers, as specified in statute.	Work by women prohibited after 10 p.m. Labor Commissioner is directed to: (1) Make regulations to protect health and welfare of women and (2) prescribe adequate transportation facilities for those employed between 1 a.m. and 6 a.m. Upon application by employer, the Commissioner may permit employment of females between 1 a.m. and 6 a.m., provided employer will comply with established regulations.
Delaware	Manufacturing, baking, printing, dressmaking. (Exempts canning and preserving of perishable fruits and vegetables.) Mechanical establishment (by interpretation, includes beauty shop), laundry, office. Mercantile establishment, telephone and telegraph office or exchange, restaurant, hotel, place of amusement. <i>Exceptions</i> (all classifications above): Establishments where continuous operations are necessary.	Work by women prohibited from 11 p.m. to 6 a.m. Work by women prohibited from 11 p.m. to 6 a.m. If any part of a woman's daily work is performed between 11 p.m. and 7 a.m., her hours may not exceed 8½ in any 24. (Day-work maximum, 10 hours.)
Indiana	Manufacturing establishment. <i>Exception</i> (by interpretation): Switchboard operators in office of the establishment.	Work by women prohibited 10 p. m. to 6 a. m. (12 midnight to 6 a. m. if 2 shifts, and employment does not exceed 8 hours a day, 5 days a week). This law's provisions suspended since 1941; the current suspension law to expire Mar. 15, 1951.
Kansas	Manufacturing; laundry; dyeing, dry cleaning, or pressing establishment. Mercantile establishment. <i>Exception</i> : Registered pharmacists. Telephone operators.	Work by women prohibited from 9 p. m. to 6 a. m. Work by women after 9 p. m. prohibited. ¹ Operators regularly employed after 11 p. m. must be considered night workers. Rest and sleep time shall not be considered worktime. Total worktime, plus rest and sleep time, must be within 12 consecutive hours.
Maryland	Manufacturing, mechanical, or mercantile establishment; printing; baking; laundering. <i>Exception</i> : Office work.	If any part of a woman's daily work is performed between 10 p. m. and 6 a. m., her hours may not exceed 8 a night. (Day-work maximum, 10 hours.)
Massachusetts	Manufacturing or mechanical establishment.	Work by women prohibited from 11 p. m. to 6 a. m. ²

State	Industry or occupation covered	Nature of restriction
Nebraska.....	Offices, in cities of over 5,000 population. <i>Exceptions:</i> Public service corporation; (by interpretation) charwomen or janitresses. Mechanical or mercantile establishment; laundry, hotel, or restaurant in cities of over 5,000 population (<i>Exempts</i> public service corporation); manufacturing, in cities of over 5,000 population.	Work by women prohibited from 1 a. m. to 6 a. m. Work by women prohibited from 1 a. m. to 6 a. m. except on permit.
New Hampshire.....	Manual or mechanical labor in any employment. <i>Exceptions:</i> Household, boarding-house, or farm labor; domestic, hotel, or cabin labor, including dining and restaurant service in connection therewith and incidental thereto; nursing; operators in telegraph or telephone offices; canning perishable fruits and vegetables.	Work by women between 8 p. m. and 6 a. m. on more than 2 nights a week is night work and may not exceed 8 hours in any 24 nor 48 in any week. (Day-work maximum, 10 hours a day, 48 a week, in manufacturing; 10¼ a day, 54 a week, in any other employment.)
New Jersey.....	Manufacturing establishment, bakery; laundry. <i>Exceptions:</i> Cannery engaged in packing perishable products such as fruits or vegetables; glass manufacturing.	Work by women prohibited from 12 midnight to 7 a. m. ³
New Mexico.....	Telephone or telegraph office, if more than 5 females are employed. <i>Exceptions:</i> Emergencies resulting from fires, flood, storm, epidemic of sickness, or any other extreme emergency that could not have been reasonably contemplated.	Employment of women between 10 p. m. and 7 a. m. may not exceed 8 hours in any 1 day nor 54 in 7-day week. (Day-work maximum, 8 hours a day, 48 a week.)
New York.....	Factory (includes cannery). <i>Exceptions:</i> Specified occupations in a newspaper publishing or commercial printing establishment; book or pamphlet bindery; (by interpretation) stenographers and other office workers in factory. Cleaning or laundering any article or thing covered by definition of "factory." Mercantile establishment; beauty parlor; telegraph or other messengers. <i>Exceptions:</i> Licensed pharmacists; (by interpretation) stenographers and other office workers. Restaurant. <i>Exceptions:</i> Women employed solely as singers or performers; elevator operators; attendants in ladies' cloak rooms and parlors; employees in or in connection with hotel dining rooms and kitchens; hat-check, cigarette, or flower girls; resort or seasonal hotels and restaurants in rural communities or cities of less than 15,000 population. Streetcar conductors or guards; elevator operators in hotels and restaurants. Elevator operators, unless in establishment where women may be employed as early as 6 a. m. <i>Exceptions:</i> Hotels and restaurants.	Work by women prohibited from 10 p. m. to 6 a. m. (12 midnight to 6 a. m. if multiple shifts). Work by women prohibited from 10 p. m. to 7 a. m. (12 midnight to 7 a. m. for women over 21 in mercantile establishments. Effective from July 1, 1950, to Apr. 1, 1951). Work by women prohibited from 12 midnight to 6 a. m. Work by women prohibited from 10 p. m. to 6 a. m. Work by women prohibited from 10 p. m. to 7 a. m.
North Dakota.....	Elevator operators.....	Work by women prohibited from 11 p. m. to 7 a. m.
Pennsylvania.....	Manufacturing establishment..... Restaurant.....	Night work permitted if provisions of State hours law and regulations of the Industrial Board are met by the plant. Applications for employment on a 2- or 3-shift basis must be made to the State labor department. Unless public transportation is available, employer must supply transportation for women and minors dismissed from duty between 11 p. m. and 6 a. m. All time spent by employee in waiting for employer to furnish such transportation shall be considered waiting time and paid for at applicable minimum hourly rate.
Puerto Rico.....	"Any lucrative occupation." <i>Exceptions:</i> Packing, canning, or fruit and vegetable refrigeration industries, and textile industry (see below), telephone operators, telegraphers, artists, nurses, houseworkers. Shops, factories, or any other industrial or commercial establishment. Packing, canning, or fruit and vegetable refrigeration industries, and textile industry.	Work by women prohibited from 10 p. m. to 6 a. m. Upon employer's application to employ workers on days or during hours when establishment must remain closed to public or during night hours when work by women is prohibited by law, the Labor Commissioner is authorized to grant a permit if he deems such work essential to complete necessary work that must be finished within a determined time. <i>Exceptions:</i> Work between 10 p. m. and 6 a. m. prohibited in any case for women who are under 18 or pregnant, or whose hours worked during the next preceding 16-hour period, added to hours worked between 10 p. m. and 6 a. m., would exceed 8 in the 24. Work between 10 p. m. and 6 a. m. permitted for women over 18 who are not pregnant, if hours worked in any calendar day do not exceed 8, and work shifts are rotated so that no woman works consecutively on the night shift for more than 3 weeks.
South Carolina.....	Mercantile establishment..... "Operatives and employees" in any cotton and woolen mill manufacturing yarns, cloth, hosiery, and other products. <i>Exceptions:</i> Mechanics, engineers, firemen, watchmen, teamsters, yard employees, and clerical force.	Work by women after 10 p. m. prohibited. Employment at night not to exceed weekly maximum set for day work—55 hours. ⁴

State	Industry or occupation covered	Nature of restriction
Utah.....	Retail trade.....	Women employed between 10 p.m. and 6 a.m. may not be required to report for work or be dismissed from work during these hours, unless suitable transportation is available at no extra cost to worker.
Washington.....	Elevator operators.....	Work by women after 12 midnight prohibited.
Wisconsin.....	Manufactory; canning factory before and after season of actual canning of product. <i>Exceptions:</i> Office workers and charwomen in a manufactory; workers in canteens and eating houses operated by a canning factory for its own employees. Laundry. <i>Exceptions:</i> Office workers and charwomen..... Streetcar conductors, motormen, or flagmen.....	Work by women prohibited from 6 p.m. to 6 a.m.
	Hotel.....	Work by women prohibited from 5 p.m. to 8 a.m. in cities of 150,000 population and over and their suburbs; from 5 p.m. to 6 a.m., elsewhere.
	Restaurant.....	If any part of a woman's daily work falls between 9 p.m. and 6 a.m., hours of employment may not exceed 9 a night, 54 a week. (Day-work maximum 10 hours a day, 55 a week.) Work between 8 p.m. and 6 a.m. is considered night work except that work 1 night a week after 8 p.m. is not so classified. Maximum for night work, 8 hours a night, 48 a week. (Day-work maximum, 9 hours a day, 50 a week.)
	Telephone operators in exchanges having 2,000 telephones and over. ¹	If any part of a woman's work is between 6:30 p.m. and 6 a.m. on more than 1 day in week, her hours may not exceed 8 in any 1 day nor 48 during the entire week. (Day-work maximum, 9 hours a day, 50 a week.)

¹ Between June 1 and Sept. 15, mercantile establishments in agricultural communities may remain open until 10 p. m. on 1 day in week if permit is obtained from State labor department.

² Commissioner of Labor and Industries authorized, after public hearing, to suspend until July 1, 1951, the application or operation of this prohibition.

³ Governor is authorized to suspend this law, on his own order or upon application, in time of war or other serious national emergency.

⁴ Law applies to both male and female employees 16 years of age and over.

⁵ For smaller exchanges, orders of Industrial Commission establish number of hours of employment to be counted as the night shift and also maximum number of work hours permitted. The count varies from 1 hour to 7 hours according to the number of telephones in the exchange, and maximum hours from 10 a day, 60 a week, in the very small exchanges, to 9 a day, 56 a week, in those having between 1,000 and 2,000 telephones.

Railway Labor Act: Administrative Highlights, 1949-50¹

THE NUMBER OF THREATENED STRIKES in the transportation industry during the year ending June 30, 1950, exceeded the total of any previous year in the life of the Railway Labor Act, according to the latest annual report of the National Mediation Board.² The more serious strikes or strike threats were attributed either to disputes involving grievances arising out of existing contracts which had not been referred to the National Railroad Adjustment Board for settlement, as prescribed by the act before threat of a strike was made, or to disputes which involved more than one craft or carrier.³

Many of the threatened strikes were disposed of through efforts of the National Mediation Board; others, however, were not disposed of until after Presidential fact-finding boards had been invoked under the emergency provisions of the act. During the fiscal year 1950, 11 such boards were created to avert threatened strikes (12 in 1949).

Although some of the disputes before the emergency boards involved matters of national concern, the procedures of the Railway Labor Act should have been adequate in other cases, according to the Board, "without the necessity of the President of the United States declaring an emergency."

Provision for Settling Disputes

The amended Railway Labor Act "distinguishes different kinds of disputes, recognizes the differences in the principles which underlie them, and provides different methods and establishes separate agencies for handling the various kinds." The act embodies detailed procedural steps for the peaceful handling of disputes from their origin to their final disposition. Direct negotiation, mediation, arbitration, and Presidential emergency boards are all utilized or are available.

If the National Mediation Board finds it impossible to bring about a settlement of a case by mediation, it endeavors, under the act, to induce the parties to submit to voluntary arbitration. But there is no compulsion on either disputant to

agree to arbitrate.⁴ Should arbitration be refused by either party or by both parties, and the dispute remains unsettled and, in the judgment of the Board, threatens substantially to interrupt interstate commerce, the Board must notify the President of the United States. The President may, at his discretion, appoint an emergency board.

The offices of the Board in so-called mediation disputes⁵ and those of Presidential fact-finding boards are purely voluntary in nature, under the act. They provide steps for deferring a strike or lockout for a temporary period, however. The principles of negotiation and mediation constitute the heart of the law. Even emergency boards function in a mediatory capacity in some controversies. There is no prohibition in the act against work stoppages by employees after all the procedures under the Railway Labor Act have been exhausted.

On the railroads, disputes involving employee grievances and controversies over the interpretation and application of existing contracts, which cannot be settled by direct conference, are referable either to local or to system adjustment boards set up by agreement, or to the National Railroad Adjustment Board provided by the act if no local or system boards have been agreed to for that purpose. The decisions of the National Board are binding by law upon both parties. The Board consists of 36 members, 18 selected by the carriers and 18 by the national organizations of railway employees. Each of its four divisions has jurisdiction over disputes involving different crafts or classes of railroad employees. Salaries of members are paid by the parties that select them, but salaries of administrative staff and all other administrative expenses are borne by the Government. If any division cannot agree on an award because of a deadlock, a neutral referee must be selected by the division or appointed by the National Mediation Board, upon request, to sit with the Adjustment Board until a decision is rendered.

Grievance Accumulation, First Division⁶

The National Railroad Adjustment Board was not able, during the fiscal year 1950, to reduce its backlog of unsettled disputes in the important First Division, despite the recent creation of two

supplemental joint boards (Engineers-Firemen and Conductors-Trainmen) and the adoption of revised procedural rules. The First Division has jurisdiction, under the act, of grievances which involve "operating" employees, i. e., road- and yard-service employees.⁷ It is called upon to handle more than four times the number of disputes handled by the other three divisions combined, and has been regularly behind in handling its docket of cases.

During the fiscal year 1950, the First Division docketed 1,766 new disputes and disposed of 1,438 cases, thereby increasing its backlog of unsettled disputes from 2,842 as of July 1, 1949, to 3,170 on June 30, 1950. On the basis of cases disposed, the National Mediation Board estimated that the First Division was more than 2 years behind in its work on June 30, 1950; the estimate was nearly 4 years at the end of the previous fiscal year.

The number of new grievance cases received and docketed annually by the First Division increased by 85 percent in 2 years—from 954 in the fiscal year 1948 to 1,766 in 1950. Total numbers docketed involving trainmen, firemen, engineers, and switchmen had appreciably increased; the largest number of new cases involved trainmen—587 in the fiscal year 1950 alone (see table).

National Railroad Adjustment Board, First Division: Number of cases received and docketed annually, by labor organization, fiscal years ending June 30, 1948, to June 30, 1950¹

Labor organization	Fiscal year ending June 30—		
	1950	1949	1948
Total number of cases.....	1,766	1,226	954
Engineers.....	353	203	100
Engineers in combination with others.....	138	59	53
Firemen.....	374	216	191
Firemen in combination with others.....	13	1	5
Conductors.....	156	194	236
Conductors-Trainmen.....	40	21	6
Trainmen.....	587	489	343
Switchmen's Union of North America.....	101	40	18
Other.....	24	3	2

¹ Compiled from reports of National Railroad Adjustment Board in fourteenth, fifteenth, and sixteenth annual reports of National Mediation Board (pp. 72, 71, and 93, respectively).
² Includes 2 "individual" cases.

The National Mediation Board again expressed concern over long delays by the First Division in handling cases and issuing awards, some of which often run into years, with the result that some labor organizations resorted to other techniques to secure settlements. When efforts to settle

grievance disputes by mediation failed, Presidential emergency boards were created, after strike dates were set. In the fiscal year 1950, 6 out of a total of 11 emergency boards created during that period involved grievance disputes, which, according to the National Mediation Board, should have been disposed of by the First Division, under the act.

For instance, prior to a strike against a principal carrier system which lasted some 45 days, the Presidential fact-finding board "sought vainly to secure acceptance of procedures for settling the dispute and averting the threatened strike." It pointed out that "the grievance cases should have been submitted to the National Railroad Adjustment Board, and criticized the practice" of bypassing that agency by calling strikes to secure the appointment of emergency boards. The unions, however, rejected this finding. The emergency board warned:

It seems inconceivable to us that a coercive strike should occur on one of the Nation's major transportation systems . . . in view of the fact that the Railway Labor Act provides an orderly, efficient, and complete remedy for the fair and just settlement of the matters in dispute. Grievances of the character here under discussion are so numerous and of such frequent occurrence on all railroads that the general adoption of the policy pursued by the organizations in this case would soon result in the complete nullification of the Railway Labor Act.

In another serious controversy involving more than 1,400 grievance cases which remained unsettled on the property of a carrier system, the emergency board announced that in its mediatory capacity it had induced the parties to make a settlement. By the terms, creation of a regional board of adjustment under the Railway Labor Act was provided for, to which the unsettled claims were to be referred.

The National Mediation Board recommended in its 1950 report that a conference of major executives of the railroads and the operating brotherhoods be held without further delay in order to devise some workable method for eliminating the "log jam" of cases in the First Division. It also recommended that a more determined effort be made to dispose of a larger proportion of cases without the intervention of a referee. In addition, it pointed to a definite need for some understanding between the carriers and the brotherhoods as

to the extent to which awards of the First Division should serve as precedents.

Peaceful Mediation

According to the National Mediation Board, the Railway Labor Act again proved its value in the fiscal year 1950 in providing mediation procedures for the amicable settlement of 234 labor disputes. Since the amendment of the act in 1934, 3,368 cases have been similarly disposed of. "Against this total," the National Mediation Board pointed out, "the few instances in which work stoppages occurred should stand out as sound evaluation of the benefits of successful use of the act's procedures."

As of June 30, 1950, 102 mediation cases remained on the Board's docket.

Among matters of concern to the Board during the fiscal year 1950 were the following:

(1) Failure of disputants to utilize, or comply with, "the very complete procedural provisions of the act."

(2) Apparent reluctance of both carriers and labor organizations to conduct thorough collective bargaining in national cases. The "short-circuiting" of negotiations to secure governmental assistance was deplored.

(3) Similarly, too great reliance on appointment of Presidential fact-finding boards; also the tendency, at times, to reject the findings and recommendations of such boards.

(4) The large number of cases deadlocked by the National Railroad Adjustment Board, requiring the services of referees appointed by the Government.

(5) Need for investing representatives in negotiations with sufficient authority to effect a settlement.

(6) Jurisdictional disputes between two or more labor organizations.

For settling controversies and avoiding strikes, as well as obviating the necessity for emergency boards, in the railroad and air-transportation industries, the National Mediation Board outlined three steps: First, settling as many disputes as possible in direct negotiation and real collective bargaining; second, invoking the assistance of mediation for effecting a "meeting of the minds"; and third, voluntary acceptance by both parties of arbitration in issues that remain unresolved.

Growth in Use of Emergency Boards ⁸

Only a few Presidential emergency boards were created under the amended Railway Labor Act of 1934 during the 8 years prior to World War II.⁹ In May 1942, a National Railway Labor Panel was created by Executive order during the wartime emergency, which functioned until August 1947. Under this Panel, emergency fact-finding boards supplemented procedures under section 10 of the act. These boards were appointed from panel members in unsettled dispute cases in which no strike vote had been taken, after mediation by the National Mediation Board had failed and arbitration had been rejected. A strike vote and a definite strike date are prerequisites under section 10 before the National Mediation Board may report the threat of an emergency to the President.

In the early days of World War II, the standard railway labor organizations and the carriers agreed that there should be no strikes or lockouts and that all disputes would be settled by peaceful means. During the existence of the National Railway Labor Panel, 58 panel emergency boards were provided. With the exception of a few cases, reported the National Mediation Board, the

recommendations of these boards were accepted by the parties in settlement of the disputes.¹⁰ The panel emergency boards certified that recommended wage changes were to conform with the general wage stabilization program of the day.¹¹

¹ Information is from Sixteenth Annual Report of the National Mediation Board, including the Report of the National Railroad Adjustment Board, for the Fiscal Year Ended June 30, 1950. Washington, 1950.

For background material, earlier annual reports were utilized; and also Fifteen Years Under the Railway Labor Act, Amended, and the National Mediation Board, 1934-49 (U. S. National Mediation Board, Washington, 1950).

² The National Mediation Board is the chief administrative agency under the Railway Labor Act. Its principal work consists in mediating disputes in railroad and airline industries which involve changes in rates of pay, rules, or working conditions; and determining collective bargaining agents in disputes concerning representation of employees. The National Railroad Adjustment Board has jurisdiction of employee grievance disputes and controversies over the application and interpretation of existing agreements in the railroad industries.

³ The more prominent disputes in the railroad industry were those in connection with the manning of Diesel locomotives and the establishment of the 40-hour week for "operating" employees.

⁴ Fifteen Years Under the Railway Labor Act (p. 54).

⁵ Involving change in rates of pay, rules, or working conditions.

⁶ For a summary of the situation during the previous year, see Monthly Labor Review, April 1950 (p. 403).

⁷ I. e., engineers, firemen, hostlers and outside hostler helpers, conductors, trainmen, and yard-service employees.

⁸ Information compiled from earlier annual reports of the National Mediation Board and from Fifteen Years Under the Railway Labor Act (pp. 32-33, 84-89).

⁹ Fiscal years 1935 to 1942 inclusive. (See first to eighth annual reports.)

¹⁰ Fourteenth annual report, 1947-48 (p. 52).

¹¹ Tenth annual report, 1943-44 (p. 36); see also Fifteen Years Under the Railway Labor Act (p. 33).

"That we have made progress in the field of industrial safety is evidenced by the fact that in the past 2 years workmen's compensation rates [in Indiana] have been substantially reduced, the first decrease of 7 percent coming in 1949 and a further reduction of 13 percent in 1950. These reductions were made in the face of increased workmen's compensation benefits and an increase in employment. They represent an approximate saving of \$5,000,000 annually to the employers of Indiana. I am convinced that the [Governor's] Safety Conference [held in September 1950 and attended by more than 3,500 persons] will point the way to other methods of saving lives and dollars in Indiana."

—From message of Governor of Indiana to State Legislature 1951, quoted in United States Department of Labor, Bureau of Labor Standards, Legislative Report No. 1, February 5, 1951 (pp. 35-36).

Longevity of Railroad Annuitants¹

FOUR OF EVERY FIVE railroad workers who retired at the age of 65, under the Federal Railroad Retirement Act, during the years 1936 to 1948, were still alive 5 years after their retirement, and nearly three out of five were still on the rolls 10 years after their annuity began, according to a recent mortality study made by the Railroad Retirement Board. Even those who did not retire until 70 were living, in almost three out of four instances, at the end of 5 years of retirement. Nearly half of this older group were still alive at the end of 10 years.

Percentage of surviving railroad annuitants who retired at specified ages during 1936-48, by years of survival

Full years of survival after retirement	Percentage surviving among annuitants who retired at age—		
	65	70	All ages
1 year	96	95	95
2 years	92	90	90
3 years	88	85	85
4 years	84	79	80
5 years	80	74	75
6 years	76	70	70
7 years	71	62	64
8 years	67	57	59
9 years	62	51	53
10 years	57	46	48
11 years	51	40	42
12 years	44	35	35
13 years	34	30	27

Life Expectation After Retirement²

Railroad workers retiring at age 65 may expect, as a group, to survive for an average period of 13.0 years; those retiring at age 70, for an average

of 10.4 years; and those retiring at age 75, for an average of 8.2 years. Even annuitants retiring at age 80 can expect, on the average, to live 6.3 years.

The life expectancy of railroad annuitants retiring at ages 60 to 85 is appreciably higher than for white males in the general population of the United States, as is shown in the following tabulation.

	Years of life expectation	
	Railroad annuitants, 1946-49	White males, 1948 ¹
60 years.....	16.5	15.4
65 years.....	13.0	12.4
70 years.....	10.4	9.8
75 years.....	8.2	7.5
80 years.....	6.3	5.4
85 years.....	4.6	3.6

¹ Data for white males are from computations made by the U. S. Public Health Service on the basis of mortality in the calendar year 1948.

The superior longevity of railroad annuitants over the general population is due in part, according to the Railroad Retirement Board's study, to the fact that the railroad annuitants are a hardy group, having generally been able to remain at work until an advanced age. Moreover, the statistics for railroad annuitants exclude those retired for serious disability, who consequently have a heavier mortality than other railroad annuitants. In contrast, the figures for white males in the general population are based on mortality of all men, irrespective of whether they were able to work late in life or had become seriously disabled earlier.

¹ Information is from Monthly Review, U. S. Railroad Retirement Board, Chicago, February 1951 (pp. 22-25).

² Life expectancy figures are group averages only and have no application to individuals as such.

Technical Notes

Interim Adjustment of Consumers' Price Index

ECONOMIC, MILITARY, AND LEGISLATIVE developments during the summer of 1950 made necessary certain interim improvements in the Consumers' Price Index in advance of the comprehensive revision scheduled for completion in June 1952.¹ No major changes in procedures or weights had been made since the full scale revision of 1940.

When this program was begun, it was expected that no important changes would be made in the index until the general revision was completed. This assumed that the period of 1950-52 would be one of relatively stable economic conditions with moderate and comparatively uniform price movements. This expectation was dispelled by the sharp and diverse price movements following June 1950. These changes magnified the effects of the mis-weighting of the components of the index.

One phase of the adjustment, namely, correction of the new unit bias in the rent index, had been planned and announced in 1949. Other improvements, such as introduction of new or substitute items, were comparatively minor and routine; but some represent departures from customary practices. Because these changes, in the aggregate, seemed likely to affect the trend of the index from January 1950 and into the future, the Bureau of Labor Statistics took pains to announce them in advance and document them in detail.

Plans for Interim Adjustment

Three major considerations underlie the general planning of the interim adjustment, which should be considered an *improvement* of the 34-city index *as presently constructed and defined*: (1) not to make adjustments of basic concepts or methodology prior to the comprehensive revision, (2) to make

the adjustments quickly, and (3) to make only such changes as would result in demonstrable improvements.

The scope of the adjustment embraced four major parts:

1. Revision of city population weights.
2. Correction of new unit bias in rent index;
3. Addition of new items.
4. Revision of commodity weights.

Revision of Population Weights

Publication of the 1950 decennial census population data by city and county made possible the calculation of revised population weights for combining 34-city data into a national index for all items, and 56-city data into a national food index. Previous city weights in the index were based on Bureau of the Census estimated population counts for 1942 derived from May 1942 registrations for sugar rationing.² In the index weights, each city bears a weight based on its own population and that of other metropolitan areas in the same region.

In calculating revised 1950 weights, the population of standard "metropolitan areas" as defined by the Census was used. The metropolitan area, or entire county in which the central city is located as well as adjacent counties which are closely related to it economically, has replaced "metropolitan districts" as used in 1940.³ Essentially the same combination of nearby cities with index cities was maintained in calculating the city weights. A tabulation of the 1942 and 1950 population weights will be presented in the reprint of this article.

Correction of the Rent Index

As part of the interim adjustment of the Consumers' Price Index, the corrections to the rent index and the "all items" index for the "new unit bias" have been incorporated into the index num-

bers from January 1950 to date. The nature of this correction is described in detail in another technical note in this issue.

The amount of the rent corrections, as applicable to the October 1950 indexes, was carried as a footnote to all index releases from October through December 1950. The ultimate incorporation of this rent correction into the index had the effect of raising the national rent index for January 1950 by 6.8 index points, and the national "all items" index for January 1950 by 1.3 index points.

Addition of New Items

No general review of the sample of items priced for the index was feasible for the interim adjustment. However, a few items which had greatly increased in importance in family spending since the mid-thirties were added. A few additional items were included to improve the measurement of average price movements for groups or subgroups of similar items. Frozen peas, strawberries, and orange juice concentrate, canned baby food, group hospitalization payments, home permanent wave refills, television sets, and beer were added because of their increased importance; layer cake, frankfurters, ice cream, cola drinks, grape jelly, men's rayon suits, men's work gloves, women's rayon blouses, boys' jeans, cotton rugs, chrome dinette sets, electric toasters, aluminum pans, velocipedes, and gas for space heating were added to improve the measurement of price change.

These items were introduced into the index calculations at the first period for which reliable prices were available. For the January 1951 index,

prices were available in most cities for all new items except beer. It is expected that reliable prices for this item will be available within a few months.

Revision of Commodity Weights

The unrepresentativeness of current index value weights as related to current spending patterns was the most compelling reason for making the interim adjustment. Table 1 indicates the extent of the weight dislocation in the January 1950 index.

To understand why the weight structure of the index became unrepresentative, the reader should review the mechanics of the index calculation.⁴ Since food prices have increased more than other groups, the value weight of food in the national index has increased as a percent of the total value of the market basket—from 35 percent in 1934–36 to more than 40 percent before the adjustment.

Only if people had continued to buy the same quantities of all goods and services, would foods actually represent 40 percent of family expenditures. The Bureau's postwar studies indicate, on the contrary, that foods continue to take about one-third of the consumer's dollar. This shows that consumers have adjusted their spending patterns to increased income and higher prices by purchasing different things in different quantities. The index procedure necessarily holds quantity weights constant from month to month. It cannot take continuous account of changes in spending patterns. That is why, periodically, the Bureau must conduct new family expenditure surveys and adjust weights accordingly.

TABLE 1.—Comparison of percentage distribution of groups of expenditures by all families of wage earners and clerical workers and unadjusted index weights as of January 1950

Commodity group	Denver		Detroit		Houston		Manchester		Memphis		Richmond		Washington	
	Unadjusted	Adjusted	Unadjusted	Adjusted	Unadjusted	Adjusted	Unadjusted	Adjusted	Unadjusted	Adjusted	Unadjusted	Adjusted	Unadjusted	Adjusted
Food.....	41.6	29.3	37.8	31.2	36.7	30.1	44.2	30.4	38.7	30.2	37.9	32.8	35.7	30.0
Apparel.....	11.9	12.2	12.2	12.2	12.7	13.6	13.3	15.8	13.5	13.8	13.7	14.0	15.7	13.7
Housing.....	13.2	12.1	15.3	11.1	13.3	11.1	9.1	10.2	12.6	10.9	11.6	10.9	15.4	13.5
Fuel, light, and refrigeration.....	4.6	3.6	6.0	4.2	3.1	2.0	9.1	6.5	6.8	2.8	7.7	5.4	4.6	3.3
Household operation.....	3.7	4.2	2.4	3.6	4.7	5.3	3.0	4.4	4.3	4.5	4.7	6.0	4.9	4.9
Housefurnishings.....	4.7	6.9	5.1	6.8	7.4	7.8	6.0	7.2	6.8	9.0	5.8	5.6	5.6	4.8
Automobile transportation.....	7.1	12.5	8.1	11.5	10.1	9.9	4.8	7.0	6.1	10.0	5.6	6.5	5.7	9.2
Other transportation.....	1.3	2.3	2.0	2.3	1.3	2.0	.8	2.3	1.6	1.9	2.0	2.5	2.4	3.5
Personal care.....	3.2	2.5	3.0	2.0	2.7	2.6	2.0	2.3	2.1	2.3	2.1	2.3	2.7	2.4
Medical care.....	4.3	5.9	3.3	5.4	3.8	6.3	3.0	4.5	3.5	5.6	4.4	6.3	3.6	5.3
Recreation and reading.....	2.5	4.7	2.8	5.9	2.5	6.1	2.4	5.2	2.4	5.4	2.5	5.0	2.4	5.9
Tobacco and alcoholic beverages.....	1.9	3.8	2.0	3.7	1.7	3.2	2.3	4.2	1.6	3.6	2.0	2.7	1.3	3.5
Total.....	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

¹ Weighted by Negro-white population weights from dwelling unit survey.

Since actual data had to be estimated for some cities, the interim adjustment of weights served only to bring the index weight diagrams *closer* to current patterns of family spending. Data necessary to adjust the "all items value aggregate" in the index to actual total expenditures in each city were not available. Therefore, the total current index value aggregate for each city was redistributed percentage-wise according to the estimated current spending patterns.

Throughout the rest of this article the term "weights" will refer to the percentage distribution of value weights in a current period and not to physical quantity weights. The term "current index weight" will refer to the weights in the January 1950 index before adjustment.

The adjustment of weights for the 7 cities for which recent actual expenditure data are available will be discussed separately from those where they are not.

Adjustments of Weights in Seven Cities

Basic data for adjustment of weights were obtained from special tabulations of the survey results for each of seven cities recently surveyed. Average dollar and percentage expenditures for major groups of commodities were calculated for white and Negro families of wage earners and clerical workers.⁵ Since it was desired that index weights be adjusted to the most recent period possible, the survey data which referred to different time periods—1947, 1948, or 1949—were adjusted by estimated changes both in quantity consumption and in price to a common date, approximately January 1950. The 12 commodity groups for which expenditure data were summarized and adjusted, corresponded to the present index groups (and subgroups of miscellaneous goods and services): Food; Clothing; Housing; Fuel, light, and refrigeration; Furnishings and equipment; Household operation; Auto purchase and operation; Other transportation; Personal care; Medical care; Reading and recreation; Alcoholic beverages and tobacco.

Quantity adjustments to survey results were made to 1949 by item—the latest year for which information was available—on the basis of data from independent sources. Department of Commerce national estimates of personal consumption expenditures, retail sales data of the Department

of Commerce and Federal Reserve Banks, Internal Revenue tax collection data, annual food consumption data of the Department of Agriculture, automobile registrations, and similar data from other sources were used. In some cases, city data were available; in others, national figures were used. If for any given item or group of items, reliable information on consumption was not available, no quantity adjustment to the survey data was made. Adjustments for price change to 1950, were based on the Bureau's regularly collected retail price data.

The general validity of the adjustment is corroborated by comparison with Department of Commerce annual national estimates of personal consumption expenditures adjusted for comparability with the Bureau's definition of family expenditures. The adjustments did not materially change the percentage distribution of expenditures from the survey data.

The percentage distribution of groups of expenditures shown below are for Detroit as of the survey date, 1948, and as adjusted to 1950. The data are for white wage-earner and clerical-worker families of two or more persons.

	1948	1950
Food.....	32.3	32.5
Apparel.....	12.8	11.5
Housing.....	10.7	10.6
Fuel, light, and refrigeration.....	4.0	4.1
Household operation.....	3.4	3.5
Housefurnishings.....	6.7	6.6
Automobile transportation.....	11.2	11.9
Other transportation.....	2.0	2.4
Personal care.....	2.1	2.1
Medical care.....	5.2	5.5
Reading and recreation.....	5.8	5.7
Tobacco and alcoholic beverages.....	3.8	3.6
Total.....	100.0	100.0

Using the adjusted data, a complete revision of group and item index weights was made for each of the 7 cities. Expenditures for individual foods, available from the survey for a single week, were adjusted to annual totals, using seasonal adjustment factors. Expenditures for individual items were allocated in the usual manner to the sample of items priced for the index. Two exceptions were radios, transferred from the "housefurnishings" group to the "reading and recreation" subgroup, and alcoholic beverages, shifted from food to the miscellaneous group.

Estimation of Weights for Other Cities

Reasonable assumptions about the economic factors affecting the behavior of consumer expenditures were tested against 1934-36 expenditure data available for 32 of the 34 cities, and against the later adjusted survey data for 7 cities.

Coefficients of rank correlation of 1934-36 group percentage expenditures with city population size, population density, community income, relative temperature, and percent of homes owned were calculated, where appropriate, for all cities, or for different city size groups. Since scatter diagrams of the relationships did not indicate a significant degree of correlation this approach was abandoned.

A second approach was through analysis of the adjustment of index weights for the 7 cities, based on the adjusted survey data. The general city-to-city consistency in the direction of and, for some groups, the size of adjustment supported the validity and applicability of the data for weight estimations. (See table 1.)

In the main, the weight revision in these cities resulted in a decreased weight for food, shelter, and fuel, little change in the apparel weights, and increased weight for the less urgent categories of consumption.

Comparison of the adjusted survey data with the current index weights in 6 of these cities⁶ not only pointed up the exact nature of the weight dislocations, but through the technique of mean square deviations provided a statistical standard with which to measure the validity of estimates resulting from various methods. The mean square, or variance around the mean, is the sum of the squares of the deviations of each value from the mean, divided by the number of observations corrected for degrees of freedom. An adaptation of this technique was used to compare estimated index weights with observed weights in the 6 cities. Table 2 gives a summary of some of the mean square tests.

It is clear at once that the mean square deviations of the adjusted percentage expenditures from current index weights are in total very much larger than the deviations from 1934-36 weights or the variance around the 6-city average. For food, the mean square of deviations of adjusted percentage expenditures from current index weights was 92.9, compared to 7.5 from the

1934-36 weights and 6.1 for the variance around their average corrected for the difference between the mean of the 6 cities and the mean of the 32 cities in 1934-36. It was evident, therefore, that a method of estimation could be found which would improve the current index weights for all cities. A guiding principle of estimation was that, to be acceptable, estimated weights must give a lower mean square than the current index weights when tested against adjusted survey data for the 6 cities.

The general procedure of estimating weights for cities not surveyed in recent years was (1) to develop estimating methods based on reasonable assumptions about the economic behavior of consumer expenditure distributions, (2) to calculate estimates based on several different estimating methods, (3) to test these estimates against the observed data for the 6 cities, and (4) to select the method which gave the smallest mean square of the deviations estimated from actual data in the 6 cities. If one of several methods appeared clearly superior on logical grounds to the others, it might be used in preference to one showing a lower mean square, provided its mean square was not more than twice the smallest.

General Estimating Methods

Two estimating methods proved to give the best results for most group estimates.

Method A is based on the assumption that the change in expenditures from 1934-36 to 1950 has been consistent in magnitude and direction in all cities and also that the intercity differences in expenditure distributions existing in the earlier period still persist. This method, therefore, uses the ratio of the 6-city average ($\overline{p_{50}q_{49}}^6$) adjusted percentage expenditure from the recent surveys to the average percentage expenditure in 1934-36 ($\overline{p_{34}q_{34}}^6$) as an adjustment factor applied to the 1934-36 data ($p_{34}q_{34}$) for each city. This calculation gives the estimated index weight and for any given city (i) can be expressed as follows:

$$\frac{\overline{p_{50}q_{49}}^6}{\overline{p_{34}q_{34}}^6} \times (p_{34}q_{34})_i = (p_{50}q_{49})_i$$

Method A was used to estimate index weights for the food group and for automobile purchase and other transportation in the miscellaneous group.

Method B is based on the assumption that the change in quantity and quality consumption from 1934-36 to 1950 has been consistent in all cities both in magnitude and direction; and that the average relationship between current index weights and current expenditures measures the necessary correction for the dislocation of weights in the index. It preserves the intercity differences that exist in current index weights. This method, therefore, uses the ratio of the average adjusted percentage expenditures from the recent 6-city surveys ($\overline{p_{50}Q_{49}}^6$) to the 6-city average of current index weights ($\overline{p_{50}Q_{34}}^6$) as an adjustment factor applied to the current index weights for each city ($p_{50}Q_{34}t$). This calculation gives the estimated index weight and can be expressed as follows:

$$\frac{\overline{p_{50}Q_{49}}^6}{\overline{p_{50}Q_{34}}^6} \times (p_{50}Q_{34}t) = (p_{50}Q_{49}t)$$

Method B was used to estimate index weights for the following groups of items: clothing; fuel, light, and refrigeration; housefurnishings and equipment; household operation; medical care; reading and recreation; and tobacco and alcoholic beverages.

Estimates based on methods A and B were calculated for all other groups of items, and mean square tests of 6-city estimates were made for use in evaluating results of other estimating methods. The total mean square deviation for all group estimates by Method A was 17, and by Method B, 22. Both of these values were very much less than the total mean square deviation of 131 when the current index weights were tested against the survey data for the 6 cities. (See table 2.)

Other Estimating Methods

Still other estimating methods were used for personal care, housing, and automobile operation.

Analysis of family expenditure data reveals that personal care takes a fairly constant proportion of expenditures from time to time and from place to place. For the 7 cities, the percentage expenditures for white families varied from 2.1 to 2.4 percent and for Negro families from 2.6 to 3.6 percent. For other cities, therefore, current index weights were adjusted by weighting together the simple averages for white and Negro families in 7 cities by white-Negro population weights ob-

tained from the dwelling unit survey for the city to be estimated.

Intercity differences in housing and automobile operation are known to be large, and the index weight adjustments for these groups in the 7 cities were not entirely consistent as to direction or magnitude. Average annual dollar expenditures for rent were calculated directly from a 1949-50 BLS dwelling unit survey for each of the 34 cities for white and Negro families separately. These data were adjusted for comparability with expenditure survey data in the 7 cities.

For index weights it was necessary to convert these dollar estimates to a percentage of estimated dollar expenditures on all items. A fairly constant ratio was found between adjusted total expenditures and total index value weights, in the 6 surveyed cities, when analyzed separately by race. Total expenditures, therefore, were estimated by applying these average ratios by race to corresponding index value weights for the city to be estimated (as for Method B). Estimated dollar expenditures for rent divided by these estimated total expenditures gave the percentage weight for rent. This method is referred to as Method H.

Estimated dollar expenditures for owned hous-

TABLE 2.—Summary of mean square tests

Commodity group	Mean square deviations of adjusted percentage expenditures in 6 cities from—					
	Final weights ¹	Current index weights	1934-36 weights	Average ² expenditures, 6 cities	Weights estimated by—	
					Method A	Method B
All groups.....	15.62	131.10	64.38	21.95	16.98	21.94
Food.....	7.81	92.92	7.46	6.14	6.47	8.59
Apparel.....	1.15	1.11	2.88	2.20	1.33	1.22
Housing.....		4.09	21.52	.55	.89	2.31
Rent ³.....	.40			.24		
Home owner cost ³.....	.33			.36	.79	
Fuel, light, and refrigeration.....	.77	5.10	14.40	2.66	1.14	.78
Household operations.....	.46	.97	.69	.95	.84	.60
Housefurnishings.....	.66	3.64	5.56	1.18	1.24	.84
Automobile.....		10.42	5.69	5.46	3.44	6.24
Purchase.....	2.19				2.90	
Operation ³.....	.52					
Other transportation.....	.32	.60	.34	.89	.10	.40
Personal care.....	.03	.33	.04	4.02	.04	.27
Medical care.....	.37	4.54	.84	1.30	.30	.23
Reading and recreation.....	.18	4.88	3.43	.22	.62	.11
Tobacco and alcoholic beverages.....	.43	2.50	1.53	.38	.57	.56

¹ Based on estimated weights adjusted to total 100.
² Adjusted for significant differences between mean of 6 cities and mean of 32 cities in 1934-36.
³ Mean square deviations of estimated weights for: Rent by Method H, .37; Home owner costs by Method J, .20; Auto operations by Method R, .55.
⁴ Based on average of 7 cities.
 Italics indicate selected method.

ing were computed by multiplying the 7-city average expenditure per home owner by the percentage of homes owned in each city. This estimated dollar expenditure was converted to a percentage weight as in the rent estimating procedure. This is referred to as Method J.

A simple regression equation of dollar expenditures for automobile operation on percent of families owning cars as shown by the survey data for 6 cities was calculated (Method R). The percent of families owning cars was estimated for each city by dividing total passenger car registrations by the number of dwelling units in the city as reported in the 1950 Census of Housing. R. L. Polk & Co. automobile registration data,⁷ adjusted to the survey level, were used in estimating car ownership for the regression equation. Estimated dollar expenditures for automobile operation were calculated for each city and converted to a percent of estimated total dollar expenditures in the same way as was done for housing.

Many estimating methods were tried for use in adjusting weights; some were carried through the mean square tests; others were discarded on the basis of scatter diagrams.

Methods of estimation similar to that used for automobile operation were attempted for car purchase but dubious results finally led to selection of Method A.

Because of the importance of food and the size of the index weight adjustment required in the 7 cities, special attention was given to the possibility of developing estimates by regression or other methods from independent data available for the 34 cities. All estimating methods were, after test, finally discarded in favor of Method A.

For clothing and public transportation, regression equations of the 6-city percentage expenditures on population were calculated; and for fuel, the 6-city percentage expenditures on climate, and on climate and percent of homes owned. When tested for 6 cities, none of these yielded as low a mean square as Method A or Method B.

For the remaining groups—furnishings and equipment, household operation, medical care, reading and recreation, and alcoholic beverages and tobacco—mean squares of estimates by Method A or Method B were considerably below those of current index weights and no further tests were considered necessary.

The selection of an estimating method was ultimately made separately for each group. In a final step, it was necessary to adjust these independently estimated weights to total 100. This adjustment did not greatly change the unadjusted estimates. The total mean square deviations, using selective methods for each commodity group, were lower than those obtained by sole use of either Method A or Method B.

The following table compares the combined 34-city index weights of major groups for January 1950, before and after adjustment.

	<i>Unadjusted</i>	<i>Adjusted</i>
Food.....	41.6	33.3
Apparel.....	12.2	12.8
Rent.....	13.8	11.6
Fuel, light, and refrigeration.....	5.6	3.7
House furnishings.....	4.7	5.7
Miscellaneous.....	22.1	32.9
Medical care.....	3.3	5.2
Personal care.....	2.5	2.4
Automobile transportation.....	5.5	7.8
Other transportation.....	2.5	3.6
Reading and recreation.....	2.9	5.8
Household operation.....	3.3	4.1
Alcoholic beverages and tobacco....	2.1	4.0
Total.....	100.0	100.0

In general, item weights and subgroup weights, except for food subgroups, were adjusted only where data for the 7 cities showed a consistent and unusually substantial difference between current index weights and actual expenditures. After such adjustments were made, the estimated percentage weights were adjusted to 100 within each group.

Food Subgroups

The changes made to food subgroup weights were comparatively small. Use of the 1948 food consumption surveys for Birmingham, Buffalo, Minneapolis-St. Paul, and San Francisco by the Bureau of Human Nutrition and Home Economics of the Department of Agriculture (adjusted for comparability with BLS 7-city survey data) provided data for 11 cities altogether which were used for adjustments in weights for all 56 food cities.

For most subgroups, the ratio of the adjusted survey percentage expenditures to the current index weights in 11 cities was fairly consistent and

was used to adjust index weights for other cities as in Method B. For two groups—meats, poultry and fish, and beverages—variation in the adjusted percentage expenditures in the 11 cities was very small, and no acceptable relationships between these expenditures and other factors could be established. For these groups, and for frozen fruits and vegetables, a new subgroup, the average of 11 cities was used as the estimate for all cities. For the remaining group, fresh fruits and vegetables, a good correlation was found between percentage expenditures and population density, apparently reflecting the influence of home gardens in less heavily populated areas. This relationship was used in estimating index weights for this subgroup. As a final step, separate subgroup estimates were adjusted to 100 within the food group.

Weights for food items which showed a consistent difference between current index weights and adjusted percentage expenditures in the 11 cities were adjusted by Method B. These adjustments resulted in the following weight shifts within subgroups besides addition of new items: increased, vanilla cookies and layer cake, hamburger, poultry, fresh milk, shortening, margarine; decreased, corn meal, rolled oats, rib roast, veal cutlet, butter, apples, canned tomatoes, coffee, sugar, lard, salad dressing.

Fuel, Light, and Refrigeration

Sizable shifts since 1934–36 in types of fuel used were observed in the 7 cities surveyed, and were known to have taken place in other cities. Gas for space heating and fuel oil were added for cities in which they had become important. Adjusted index weights for Birmingham, Indianapolis, and Portland, Oreg., surveyed by BLS for 1945, and Milwaukee, Savannah, and Scranton, surveyed by BLS for 1946, were based on the survey data, adjusted for changes in prices and consumption in the same way as were the 1947–49 surveys.

For the remaining 21 cities, varying sources of information were used for each city. Adjusted index weight subtotals were calculated for heating fuels and nonheating fuel items within the group by Method B. The relative expenditures for heating fuel items in wide use in the 7 cities were generally proportional to the percentage of families using each item, and this relationship was used in

distributing the total weight on heating fuels to the individual items.

Apparel, Housefurnishings, and Miscellaneous

Method B was used to adjust subgroup weights within the apparel group for 26 cities. Additional survey data available from a 1948 BHNHE survey were used for Minneapolis. The sub-group weight adjustments resulted in decreased weights for men's, boys' and girls' apparel, and increased weights for women's and infants' apparel and yard goods. No important adjustments of item weights were required in this group.

The housefurnishings group includes textile housefurnishings, furniture, heavy durable goods, and smaller household equipment. Because the items in the group are heterogeneous and because the direction of adjustments of index weights in the 7 cities was generally uniform for all items within the group, each item was adjusted by Method B. Weight adjustment within this group resulted in increased weight on washing machines and curtains and decreased weight on brooms, furniture, wool rugs, and cook stoves.

As already indicated, index weights were adjusted separately for each subgroup of items in the miscellaneous group. The adjustment of items weights within these subgroups was limited for the most part to a redistribution of weights within subgroups after introduction of new items.

In the personal care subgroup home permanent wave kits were added with weights based on average expenditures in the 7 survey cities.

Automobile repairs were added to the index pricing list for 21 of the 34 cities and their weight within the automobile operation subgroup was based on the average index weight in the other 13 cities. Domestic service was added to the index pricing list in 22 cities and its weight within household operation was based on the average index weights in the other 12 cities. Cleanser, matches, and laundry starch were deleted from all city lists.

Two new items, television sets in 27 cities, and velocipedes were added to the index pricing list for reading and recreation. The average percentage expenditure in 7 cities was used for velocipedes. Because the television industry has grown rapidly, the 7-city survey data for this item were unrealistic for index weights even for the survey cities. Aver-

age family expenditures for television, representing 1949 quantities at 1950 prices, were estimated for each of the 27 cities having TV stations, based on number of sets sold multiplied by an estimated average price calculated as a weighted average of prices of 3 leading manufacturers. Estimated family expenditures varied widely—from \$19.45 in one city to \$110.31 in another. Because of this and because it was impossible to anticipate changes in television expenditures in the near future, it was decided to use for each of the 27 cities the average of the 27 city estimates, reduced by 50 percent and converted to a percent of estimated family expenditures for reading and recreation.

Group hospitalization was added to the index pricing list of medical care items. Estimated family expenditures were calculated by multiplying the percentage of population enrolled in Blue Cross plans in each city by family hospitalization rates, both reported by the Blue Cross Commission of the American Hospital Association. Since these estimates were based on total population they were adjusted to represent family expenditures on the basis of observed survey data in 6 cities.

The introduction of new items in the miscellaneous group and the adjustment of weights on items showing consistent differences between index weights and adjusted percentage expenditures in the 7 cities, resulted in the following important shifts in weights within the group: weights were increased on automobile repairs and train fare and decreased on hospital rooms and doctor's fees, men's haircuts, and radios.

Recalculation of Indexes

The final step preparatory to recalculation of adjusted indexes was to distribute current index values (aggregates) for all items according to adjusted percentage weights for groups and items for each city. Since the food index is calculated with physical quantity weights, it was also necessary to calculate revised quantity multipliers reflecting both revised value weights and revised city population weights.

After extensive consideration of three alternative link dates for the new index series—January 1950, June 1950, and January 1951—January 1950 was finally chosen and published indexes back to

January 1950 were recalculated. The new unit bias correction was applicable to January 1950, and the adjusted quantity weights were more appropriate to this date than to June 1950 or January 1951.

Index aggregates were recalculated from January 1950 forward, using the same price relatives as in the old index (for items included in both series) and adjusted weights. The originally published January 1950 all-city indexes for rent and all items and January, February, or March 1950 city indexes (depending on frequency and schedule of price collection) were corrected for the new unit bias in the rent index. Indexes for the first month of the adjusted series, January 1950, are the originally published January 1950 indexes with rent and all items corrected for new unit bias. Price changes from January 1950 forward, calculated with adjusted group and item weights, were linked to these new January 1950 indexes to form the adjusted series.

Comparison of Index Series

The movement of the adjusted 34-city index series for all items since January 1950 has not been very different from the old series; the adjusted series rose 1 percent less over the year. The difference in movement of the two series is due chiefly to the downward adjustment of the weight on foods which increased sharply in price during the year, and to the increased weight on items in the miscellaneous group. The reprint of this article will contain tabular and graphic comparisons for the two series, both for all cities combined and for individual city indexes.

The difference in the level of the two indexes at the start is due solely to the correction of the rent index which was incorporated entirely in the month of January 1950.

The variation in the measurement of average price changes for all items reflects not only the group-weight adjustments but also the internal adjustments which are reflected in different changes for commodity group indexes. About one-half of the difference between the two indexes in their movement from January 1950 to January 1951 is accounted for by changes in the group weight; about three-eighths by changes in internal weights within groups; and the remainder by the interaction of the two kinds of changes.

Item	Percent increase in indexes: Average of 34 cities			
	January 1950 to January 1951		January 1950 to June 1950	
	Adjusted series	Old series	Adjusted series	Old series
All items.....	7.9	8.8	1.2	2.0
Food.....	13.2	13.1	3.6	4.4
Apparel.....	7.3	7.9	-.2	1.1
Rent.....	2.9	2.8	1.2	1.1
Fuel, electricity, and refrigeration.....	2.4	3.2	-.6	-.8
Housefurnishings.....	12.3	13.1	.1	.3
Miscellaneous.....	4.5	5.5	-.3	.1

The combined effect of differences in weights and price movements for each major group on the measurement of average price change for all items from January 1950 to January 1951 is illustrated below mathematically. This table shows how the various groups account for a net difference of 0.9 in the price change on the two series over the year, and indicates the decreased influence of food and the increased influence of the miscellaneous group.

Item	Old index			Adjusted index		
	(1) Price relative, Jan. 1950 to Jan. 1951	(2) Weight, Jan. 1950	(3) Product, (1) × (2)	(4) Price relative, Jan. 1950 to Jan. 1951	(5) Adjusted weight, Jan. 1950	(6) Product, (4) × (5)
All items.....	108.8 × 100.0 = 108.8			107.9 × 100.0 = 107.9		
Food.....	113.1 ×	41.6 =	47.0	113.2 ×	33.3 =	37.7
Apparel.....	107.9 ×	12.2 =	13.2	107.3 ×	12.8 =	13.7
Rent.....	102.8 ×	13.8 =	14.2	102.9 ×	11.6 =	11.9
Fuel.....	103.2 ×	5.6 =	5.8	102.4 ×	3.7 =	3.8
Housefurnishings.....	113.1 ×	4.7 =	5.3	112.3 ×	5.7 =	6.4
Miscellaneous.....	105.5 ×	22.1 =	23.3	104.5 ×	32.9 =	34.4

City Indexes

There are greater differences between the two index series for individual cities than for the 34-city average. The amount of the correction for new unit bias and consequently in the adjustment of index level at January 1950 for all items and rent varies widely. Moreover some of the weight adjustments, particularly for the 7 cities recently surveyed, have varied from the average adjustment, thus exerting different effects on group price movements.

Food

The measurement of average change in United States food prices over the whole period from January 1950 to January 1951 was almost the

same by the two series. However, adjustment of the food subgroup and item weights dampened the sharp rise from April to July 1950 and the recent sharp advance in the 2 months from November 1950 to January 1951. It also eliminated the decline from July to September 1950, previously reported on the old series.

Other Groups

The result of weight adjustments for the fuel, light, and refrigeration group, has been both a smaller average rise and less sharp fluctuations of the index. This is because more weight has been given to more stable items, particularly gas and electricity, and less weight to coal.

Average price changes over the year for the apparel, housefurnishings, and miscellaneous groups have been lower, according to the adjusted series for these groups, reflecting the net effect of internal weight adjustments and addition of new items already mentioned. For housefurnishings, the difference seems to be due chiefly to the shift in weights from furniture and rugs to durable goods, prices for which had been more stable. For the miscellaneous group the differences seem to arise from the addition of television sets which decreased in price in the middle of the year; the shift in weight from doctors' and hospital fees to group hospitalization which had been more stable; and weight adjustments for men's haircuts, soaps, and other items.

Although the level of the United States rent index has been raised by the new unit bias correction, the movement of the rent indexes over the year is almost identical. The only differences arise from the slight effect of changes in city population weights on the average change for all cities.

—DORIS P. ROTHWELL

Division of Prices and Cost of Living

¹ A general discussion of the shortcomings of the index and of the Bureau's revision program will be found in "Revision of the Consumers' Price Index" in the Monthly Labor Review for July 1950.

² See Bureau of Labor Statistics Cost of Living Index in Wartime, Monthly Labor Review, July 1943; reprinted as Serial No. R. 1545.

³ See 1950 Census of Population, Preliminary Counts, Series PC-3, No. 3.

⁴ See Construction of Consumers' Price Index, Monthly Labor Review, September 1949.

⁵ These data will be included in an appendix to a reprint of this article.

⁶ Because the survey from which Washington base index weights were obtained was not strictly comparable with other cities, Washington was not used in most of the estimating processes. Hence, the varying references to "6" and "7-city" surveys.

⁷ Published by the Automobile Manufacturers Association in *Automobile Facts and Figures*.

Selection of Cities for Consumer Expenditures Survey, 1950

THE Survey of Consumer Expenditures in 1950, conducted by the Bureau of Labor Statistics, during January–May 1951, is one of the major phases of the Consumers' Price Index revision program.¹ It will provide detailed information on the kinds and quantities of goods and services purchased by families and single consumers living in urban areas of the United States. In all, 97 cities were selected for study. Data for 1950 are being obtained for 91 of these cities, since 6 of them had already been surveyed in recent years.

The survey results will be used to bring up to date the weighting design and lists of items priced for the Consumers' Price Index. They will also furnish valuable information on the spending patterns of urban consumers at different income levels and of varying family size and composition. These data are widely used in marketing and other social and economic research.

The cities to be surveyed are representative of all urban places in the United States. The city sample is large enough to allow detailed analysis of various major classifications of cities such as size, geographic areas, and types, including industrial, commercial, institutional, etc.

The method of selecting the cities to be surveyed was based on three major considerations: (1) Choice of cities that are a good sample of the total urban population from which to estimate the United States urban spending pattern for various socio-economic groups. (2) Selection of cities that would make possible reliable estimates of the expenditure weights for price index purposes for any city in the United States. (In the past the Bureau, when asked to make such estimates without conducting an actual expenditure study, has had to rely primarily on data for nearby cities. More precise estimates of index weights for cities not surveyed can be made if the sample is designed with this use in mind.) (3) Procurement and publication of expenditure data for certain individual cities which are important marketing, industrial, commercial, or institutional centers. A Nation-wide urban sample of cities, randomly selected and supplemented by a purposive selec-

tion of additional cities, most nearly meets these three considerations.

Urban Population To Be Represented

The sample cities were selected to represent all cities and incorporated places in the United States having 2,500 inhabitants or more, and other areas classed as "urban" by the Bureau of the Census.² Since 1950 population reports were not yet available when the sample was selected, city size was based on estimates of 1947 population. These estimates were obtained by adjusting the 1940 population counts by the estimated change in population for various areas from 1940 to 1947, as determined by the Bureau of the Census sample survey of 1947.³ For cities with 1940 population of 50,000 or more, the whole Census urbanized area around each city⁴ was treated as a single sampling unit. All other urban places not included within an urbanized area were treated as separate sampling units. On this basis, there were 2,798 sampling units with a total 1947 estimated population of about 91 million. The distribution of all cities and sample cities by population size class is shown in table 1.

TABLE 1.—Distribution of all cities and sample cities by population size

Population size group	Number of cities	Total population (1947 estimates)	Sample selected from Latin Square design		Purposive selection	
			Number of cities	Total population	Number of cities	Total population
Group A: 1,000,000 and over	13	35,500,000	13	35,500,000	0	0
Group B: 240,000 to 1,000,000	42	18,400,000	9	5,161,000	12	5,678,000
Group C: 30,500 to 240,000	216	18,400,000	9	1,057,000	21	2,210,000
Group D: 2,500 to 30,500	2,527	18,400,000	16	167,500	17	174,500
Total	2,798	90,700,000	47	41,885,500	50	8,062,500

¹ Includes two cities surveyed in 1947–48.

² Includes one city surveyed in 1948.

³ Includes two cities surveyed in 1948–49.

⁴ Includes one city surveyed in 1947.

Sample Design

The first two conditions for sampling, mentioned earlier, were: (1) A national urban sample; and (2) a sample from which estimated index weights could be made for any city in the United States.

All 13 largest urbanized areas, having a total population of 35.5 million, were selected for their extreme importance from almost any point of view. These are hereafter referred to as Group A cities. The remaining cities have a total population of about 55.2 million. They were divided into three groups of equal population—18.4 million each: Group B—42 cities from 240,000 to 1 million; Group C—216 cities from 30,500 to 240,000; and Group D—2,527 cities from 2,500 to 30,500.

To satisfy the condition for a national sample it would have been possible to sample randomly from each of these groups of cities. Such a sample could also have been used to make estimates covering any other city by some detailed correlation analysis of expenditures based on known population characteristics. Estimating the total expenditure pattern requires the estimating of several thousand statistics on the detail of expenditures. Such correlation analysis represents a prohibitive amount of work. However, the distribution of expenditures among the important classes of goods and services may be approximated by easier methods. This is especially true in estimating only that degree of detail required for class or group weights for a price index.

Expenditure patterns for cities for which survey data are not available are often estimated by use of available data for the nearest city of approximately the same size. Since this method is subject to an unknown and large amount of error, it was decided that what was needed was some method of selecting cities so that estimates could be made simply, for any unsurveyed city.

In an attempt to do this cities were selected in the classification diagram which has been referred to as "the Latin Square" here explained:⁵ This diagram required classification and arrangement of each city by characteristics which are known to be related to expenditure distributions. Take, for instance, the 42 cities with populations of 240,000 to a million population. Each city was classified by density of population, relative temperature, and community income level. This information was recorded on cards, one for each city.

First, the 42 cities were ranked by population density from the most dense to the least dense.

They were then classified into 3 groups—thick, medium, and thin density—of about 6.1 million population in each group.

Next, the cities were ranked according to total annual degree days (i. e., relative temperature) from highest to the lowest. The cities again were classified into 3 groups—hot, mild, and cold—of about 6.1 million population each.

Finally, the cities were ranked according to community income level from highest to lowest, and classified into 3 groups of approximately 6.1 million population each. Each city in each group was designated as "high," "moderate," or "low" income.

The 42 cities, graded into 3 levels under 3 classifications, were then cross-classified into 27 possible classes of cities representing all combinations of the levels and classifications as in table 2. Nine classes of cities—3 in each level of each classification—were then selected in such a way that no combination of levels within classifications was repeated—no two classes of the same climate were of the same density or income level, etc. These 9 classes of cities formed what is known as a "Latin Square," with the combinations of characteristics shown in the accompanying chart.

Combinations of Characteristics
of the "LATIN SQUARE"

	CLIMATE	POPULATION DENSITY	INCOME LEVEL
1	Cold	Thick	Moderate
2	Cold	Medium	Low
3	Cold	Thin	High
4	Mild	Thick	High
5	Mild	Medium	Moderate
6	Mild	Thin	Low
7	Hot	Thick	Low
8	Hot	Medium	High
9	Hot	Thin	Moderate

From each of these nine cells one city was selected, with the chance of selection proportional to the size of city. Estimated index weights for any particular city that is not one of the nine selected can be made by using expenditure data obtained for the nine cities selected. If the city

TABLE 2.—Diagrams showing classification factors, number of cities in each cell, and the balanced Latin Square chosen for the sample ¹

Group B Cities (240,000 to 1,000,000 population) 3 x 3 x 3 diagram

Income	Population density	Climate		
		Hot	Mild	Cold
High	Thick	0	(1)	4
	Medium	(1)	2	2
	Thin	1	1	(2)
Moderate	Thick	0	2	(1)
	Medium	(2)	(3)	2
	Thin	(2)	0	2
Low	Thick	(2)	0	2
	Medium	2	2	(1)
	Thin	6	(2)	0

Group C Cities (30,500 to 240,000 population) 3 x 3 x 3 diagram

Income	City Size	Climate		
		Hot	Mild	Cold
High	Large	(4)	6	3
	Medium	2	(3)	13
	Small	7	8	(16)
Moderate	Large	3	4	(5)
	Medium	(1)	9	3
	Small	6	(24)	17
Low	Large	3	(2)	0
	Medium	14	4	(6)
	Small	(30)	14	9

Group D (2,500-30,500 population) 4 x 4 x 4 x 4 diagram

Income level	City size	Distance to market ²	Climate			
			Hot	Mild	Moderate cold	Cold
High	Large	A	0	2	0	5
		B	0	4	13	8
		C	(3)	1	7	8
		D	1	6	17	6
	Medium large	A	3	5	1	1
		B	5	2	10	8
		C	1	3	12	2
		D	12	6	(18)	9
	Medium small	A	6	8	2	(7)
		B	4	5	21	4
		C	3	6	11	4
		D	9	11	17	10
Small	A	4	14	4	7	
	B	5	(6)	21	13	
	C	2	14	15	11	
	D	10	13	26	20	
Moderate high	Large	A	1	4	1	4
		B	2	5	4	(16)
		C	1	3	4	4
		D	1	2	5	3
	Medium large	A	3	(4)	5	9
		B	1	5	12	11
		C	3	6	11	6
		D	3	6	11	9
	Medium small	A	3	7	1	11
		B	4	10	12	16
		C	3	13	16	15
		D	(9)	6	19	14
Small	A	3	13	3	15	
	B	5	9	25	28	
	C	7	13	(41)	17	
	D	9	20	36	18	

TABLE 2.—Diagrams showing classification factors, number of cities in each cell, and the balanced Latin Square chosen for the sample—Continued

Group D (2,500-30,500 population) 4 x 4 x 4 x 4 diagram—Continued

Income level	City size	Distance to market ²	Climate			
			Hot	Mild	Moderate cold	Cold
Moderate low	Large	A	6	5	(1)	2
		B	6	2	4	2
		C	4	7	3	0
		D	1	2	1	2
	Medium large	A	10	10	2	14
		B	(2)	5	7	9
		C	3	16	4	4
		D	3	5	8	1
	Medium small	A	6	11	7	25
		B	5	9	19	9
		C	23	(15)	14	7
		D	6	7	14	5
Small	A	22	22	10	40	
	B	16	7	19	24	
	C	23	25	20	8	
	D	10	9	17	(12)	
Low	Large	A	11	2	0	0
		B	2	0	0	0
		C	5	1	0	0
		D	4	(1)	0	0
	Medium large	A	22	7	2	1
		B	3	2	1	0
		C	3	3	0	(1)
		D	11	8	2	2
	Medium small	A	42	21	2	10
		B	14	9	(4)	6
		C	27	23	4	4
		D	17	7	3	4
Small	A	(11)	42	17	38	
	B	47	18	17	29	
	C	28	49	12	17	
	D	65	32	7	13	

¹ Sample cells are indicated by parentheses ().
² A = Long distance to market.
 B = Short distance to small market.
 C = Short distance to medium market.
 D = Short distance to large market.

happens to fall into one of the nine city classifications selected, then the survey results of the sample city in that class can be used directly for the city in which expenditures are to be estimated. If, on the other hand, the city is in one of the other 18 classes from which a sample city was not selected, an estimate could be made as follows:

Assume that an estimate of expenditures is required for a city which is cold, thinly populated, and with high income level. An average expenditure for the nine sample cities is calculated, and averages based on three cities for each classification characteristics are then calculated for—

- Hot cities
- Mild cities
- Cold cities
- Thick cities
- Medium cities
- Thin cities
- High-income cities
- Moderate-income cities
- Low-income cities

The average of the three cities with low income is not affected by density or temperature characteristics since the three cities contain all three levels of population density and all three levels of temperature. Thus, each of the foregoing averages is affected by only one characteristic at a time. Therefore, the difference between each of these three-city averages and the grand average of the nine cities measures the net effect on the average expenditure of each of the three levels within each classification. Using the net effects of each classification characteristic, the average expenditure can be estimated for a city in a class from which there was no sample city. The estimate is calculated by adding to or subtracting from the average for nine cities, the net effects measured by the three-city averages.

Suppose that in the example the 9-city average expenditure was \$30, and differed from the 3-city averages as follows:

- + \$3 in the 3 Cold cities
- \$1 in the 3 Mild cities
- \$2 in the 3 Hot cities
- + \$2 in the 3 Thick cities
- + \$1 in the 3 Medium cities
- \$3 in the 3 Thin cities
- + \$1 in the 3 High income cities
- 0 in the 3 Moderate income cities
- \$1 in the 3 Low income cities

Then the estimate for a cold, thinly populated, high-income city would be \$30 (the 9-city average) plus \$3 (the net effect of cold), minus \$3 (the net effect of thinly populated), plus \$1 (the net effect of high income) or \$31.

To estimate the average expenditure for all cities in the population size class 240,000 to 1 million, it is necessary only to estimate an average for each of the 27 city classes and weight the classes together by the total population of the cities contained in each class. To make an estimate for all cities, the 13 large cities (Group A) and the estimates of the three size groups (B, C, and D) of cities are weighted together by their total aggregates of population.

Estimates for individual cities not included in the sample are subject to four types of errors: (1) Sampling error in the average of the sample city (within-city error); (2) error of using the sample city average to represent the average of its class; (3) error of using the average effects of each characteristic, additively, to estimate the average

of a class from which no city was selected (error of the estimating formula); and (4) error of using the estimated average of a class not surveyed to estimate a given city in that class.

When the survey is completed it will be possible to estimate expenditure weights for price index purposes for cities not surveyed and to approximate the error of the estimate.

The success of this method depends, of course, largely on classifying the cities by variables which are closely related to expenditure patterns. Since the thousands of items of expenditures are affected by so many different characteristics (e. g., fuel by the climate, housing by density, and medical care by income level), it is difficult to find those few characteristics which are common to the greatest number of expenditures.

Also the modes of classification must be independent one from the other; otherwise the three-way classification of the cities shows many blank cells and a balanced Latin Square cannot be selected. Cells in the classification diagram might be selected which contained no city. For instance, if the Bureau had used temperature as one mode of classification and geographic location for another mode of classification, cells classified as hot-northern and cold-southern would not likely contain any cities.

The problem of finding modes of classification which were closely related to expenditure patterns, but which were mutually unrelated, required study of many characteristics of cities before making the final choice for each particular group of cities. The selection of characteristics was further limited by the necessity of having comparable data for selected characteristics for all urban places. For the group of cities 240,000 to 1 million population, income level, climate, and population density were finally used; for the group of cities 30,500 to 240,000, city size, income level, and climate were used. For cities under 30,500, 4 modes of classification were used with 4 levels in each classification. The modes were—income level, climate, population size, and distance to nearest major market area. The following paragraphs explain the exact sources and treatment of the data used.

Income level was based on the average quarterly pay for employees covered by Old-Age and Survivors Insurance tabulations by counties. These data can be found in Business Establishments, Employments and Taxable Payrolls under Old-

Age and Survivors Insurance Program, First quarter 1947, by Industry Groups and Counties, U. S. Department of Commerce. The income classification of large cities, where the city population accounts for the major part of the county, was based on the published data without adjustment. For the smallest group of cities (under 30,500), the community income level was determined by a cross-classification of these average earnings data for the county in which the city is located and the 1940 Census average rent for the city. That is, cities were classified into five earnings levels—low, moderate low, moderate, moderate high, and high—by the average taxable earnings for the counties in which they were located. The mod-

erate high level was observed to have a wide range in 1940 average city rents. It was therefore subdivided into low and high rent groups; the low rent portion was combined with the moderate income group and assigned to the "moderate high income" group; the high rent portion was assigned to the "high income" group.

Climate was based on Average Monthly and Seasonal Degree Days—Base 65° F. as tabulated in U. S. Weather Bureau, Climatological Data. Degree days are defined as the sum of the deviations below 65° F. in the daily mean temperature.

Population density is the ratio of 1947 estimated population to area in square miles.

City size consists of 1947 population estimates.

TABLE 3.—Cities in Group A and Groups B-D cities selected from the three Latin Squares

GROUP A CITIES—Urbanized area population, over 1,000,000				GROUP C CITIES—Population, 30,500 to 240,000					
City	Population (1947 estimate)	Classification characteristics ³			City	Population (1947 estimate)	Climate	City size	Income level
		Climate	City size	Income level					
New York, N. Y.	9,000,000				Canton, Ohio	190,000	Cold	Large	Moderate.
Chicago, Ill.	4,200,000				Madison, Wis.	87,000	do	Medium	Low.
Los Angeles, Calif.	3,800,000				Middletown, Conn.	31,000	do	Small	High.
Northern New Jersey area	3,300,000				Huntington-Ashland, W. Va.	169,000	Mild	Large	Low.
Philadelphia, Pa.-Camden, N. J.	2,800,000				Charleston, W. Va.	138,000	do	Medium	High.
Detroit, Mich. ¹	2,600,000				Newark, Ohio	35,000	do	Small	Moderate.
Boston, Mass.	1,600,000				San Jose, Calif.	219,000	Hot	Large	High.
San Francisco, Calif.	1,600,000				Evansville, Ind.	140,000	do	Medium	Moderate.
St. Louis, Mo.	1,500,000				Lynchburg, Va.	48,000	do	Small	Low.
Pittsburgh, Pa.	1,300,000								
Cleveland, Ohio	1,300,000								
Baltimore, Md.	1,300,000								
Washington, D. C. ²	1,200,000								

GROUP B CITIES—Urbanized area population, 240,000 to 1,000,000					GROUP D CITIES—Population, less than 30,500					
City	Population (1947 estimate)	Classification characteristics ³			City	Population (1947 estimate)	Climate	Classification characteristics ⁶		
		Climate	Population density	Income level				City size	Income level	Distance to market
Minneapolis-St. Paul, Minn.	964,000	Cold	Thick	Moderate.	Grand Forks, N. Dak.	17,000	Cold	Large	Mod. high	B
Youngstown, Ohio	317,000	do	Thin	High.	Laconia, N. H.	15,000	do	Med. large	Low	C
Scranton, Pa.	240,000	do	Medium	Low.	Rawlins, Wyo.	7,000	do	Med. small	High	A
Seattle, Wash.	602,000	Mild	Thick	High.	Sandpoint, Idaho	4,000	do	Small	Mod. low	D
Cincinnati, Ohio	829,000	do	Medium	Moderate.	Grand Island, Nebr.	19,000	Med. cold	Large	do	A
Kansas City, Mo.	635,000	do	Thin	Low.	Ravenna, Ohio	10,000	do	Med. large	High	D
Atlanta, Ga.	486,000	Hot	Thick	Low.	Shenandoah, Iowa	7,000	do	Med. small	Low	B
Portland, Oreg.	532,000	do	Medium	High.	Garrett, Ind.	5,000	do	Small	Mod. high	C
Houston, Tex. ⁴	556,000	do	Thin	Moderate.	Shawnee, Okla.	21,000	Mild	Large	Low	D
					Middlesboro, Ky.	12,000	do	Med. large	Mod. high	A
					Pulaski, Va.	9,000	do	Med. small	Mod. low	C
					Anna, Ill.	5,000	do	Small	High	B
					Lodi, Calif.	17,000	Hot	Large	do	C
					Camden, Ark.	11,000	do	Med. large	Mod. low	B
					Glendale, Ariz.	6,000	do	Med. small	Mod. high	D
					Madill, Okla.	2,500	do	Small	Low	A

¹ Surveyed for 1948.
² Surveyed for 1947.
³ *Climate classification* (in normal number of annual degree days): Hot—185 to under 4,417; Mild—4,417 to under 6,144; Cold—6,144 and over.
Population density classification (persons per square mile): Thick—1,773.8 to 3,913.3; Medium—1,386.5 to 1,732.0; Thin—514.1 to 1,269.2.
Income level classification (annual dollar earnings as reported under OASI): High—\$2,468 and over; Moderate—\$2,264 to \$2,460; Low—under \$2,240.
⁴ Surveyed in 1948.
⁵ *Climate classification* (normal number of annual degree days): Hot—185 to 4,410; Mild—4,417 to 5,936; Cold—5,941 and over.
City size classification (population): Large—154,455 to 235,275; Medium—85,924 to 154,454; Small—30,273 to 85,923.
Income level classification (annual dollar earnings as reported under OASI): High—\$2,424 and over; Moderate—\$2,136 to \$2,240; Low—under \$2,132.
⁶ *Climate classification* (normal number of annual degree days): Hot—under 3,224; Mild—3,224 to under 5,232; Medium cold—5,232 to under 6,282; Cold—over 6,282.

City size classification (population): Large city—16,096-30,273; Medium large—9,512-16,088; Medium small—5,233-9,509; Small—2,500-5,232.
Distance to market classification: A=Long distance to market (over 76 miles to any marketing area). B=Short distance to small market (less than 76 miles to marketing area with retail sales under \$80,386,000). C=Short distance to medium market (less than 76 miles to marketing area with retail sales of \$80,386,000 to \$231,143,000). D=Short distance to large market (less than 76 miles to marketing area with retail sales over \$231,143,000).
Income level classification (earnings as reported under OASI): High—Cities in counties with average annual dollar earnings over \$2,360 and cities with county average earnings between \$2,136 and \$2,360 and average city rent (1940) of \$26 and over per month. Moderate high—Cities with county average earnings between \$2,136 and \$2,360 and average city rent (1940) under \$26 and cities with county average earnings between \$2,036 and \$2,136. Moderate low—Cities with county average earnings between \$1,660 and \$2,036. Low—Cities with county average earnings less than \$1,660.

Distance to market center (for small cities) is the distance in road miles that the city is to nearest market center. A market center was defined as any city with retail sales over \$40 million in 1947 as reported in Sales Management, March 1948.

Detailed tabulations of the 3 groups of cities under 1 million population, by the modes of classification, are given in table 2.

Sample Selection

For the three population groups of cities less than 1 million (Groups B, C, and D), a sample of cells was selected from each diagram to produce a balanced Latin Square as outlined above. The Latin Square for Groups B and C contained 9 cells and that for Group D, 16 cells.

Only one combination of cells was possible which would fulfill all the requirements of a balanced Latin Square for Group B. The reason is that the diagram contained a number of blank cells, the characteristic combinations of which did not describe any city of this size; for example, Group B contains no high-income, densely populated, hot city. The appearance of these blank cells in the diagram raises some question as to the efficiency of the design in estimating expenditure weights for cities not surveyed. Data obtained from cities added by purposive selection as described below will be used to test the estimates derived from the sample. For Group C there were 8 combinations possible, and for Group D a very large number of combinations.

The one combination of cells of Group B (just mentioned) was used in selecting the actual cities to be surveyed; of the 8 combinations of Group C, one was selected at random; and from the many combinations possible in Group D, the one which had the largest total population was selected. From each of the selected cells, cities were chosen at random.

The cities in Group A and those selected from the three Latin Squares are given in table 3.

Purposive Selection of Additional Cities

The sample of cities selected randomly from the Latin Square formed a Nation-wide urban sample and met the requirements for calculating estimates for any city in the United States. It did not,

TABLE 4.—Additional cities outside the Latin Square cells, Groups B-D

Group B additional cities				
City	Population (1947 estimates)	Classification characteristics ¹		
		Climate	Population density	Income level
Milwaukee, Wis.....	779,000	Cold.....	Thick.....	High.
Providence, R. I.....	620,000	Mild.....	Medium.....	Moderate.
New Orleans, La.....	591,000	Hot.....	Thick.....	Low.
Indianapolis, Ind.....	509,000	Mild.....	Medium.....	Moderate.
Birmingham, Ala.....	492,000	Hot.....	do.....	Low.
Norfolk-Portsmouth, Va.....	462,000	do.....	Thin.....	Do.
Louisville, Ky.....	431,000	Mild.....	do.....	Do.
Hartford, Conn.....	326,000	do.....	do.....	High.
Miami, Fla.....	299,000	Hot.....	Thick.....	Moderate.
Omaha, Nebr.....	283,000	Mild.....	Medium.....	Low.
Denver, Colo. ²	453,000	do.....	do.....	Do.
Memphis, Tenn. ³	433,000	Hot.....	do.....	Do.

Group C additional cities				
City	Population (1947 estimates)	Classification characteristics ¹		
		Climate	City size	Income level
Salt Lake City, Utah....	232,000	Mild.....	Large.....	Moderate.
Phoenix, Ariz.....	220,000	Hot.....	do.....	Do.
Oklahoma City, Okla....	218,000	do.....	do.....	Low.
Wilmington, Del.....	193,000	Mild.....	do.....	High.
Des Moines, Iowa.....	182,000	Cold.....	do.....	Moderate.
Little Rock, Ark.....	154,000	Hot.....	Medium.....	Low.
Wichita, Kans.....	137,000	Mild.....	do.....	Moderate.
Charlotte, N. C.....	133,000	Hot.....	do.....	Low.
Portland, Maine.....	111,000	Cold.....	do.....	Do.
Charleston, S. C.....	96,000	Hot.....	do.....	Do.
Manchester, N. H. ⁴	94,000	Cold.....	do.....	Do.
Jackson, Miss.....	84,000	Hot.....	Small.....	Do.
Sioux Falls, S. Dak.....	37,000	Cold.....	do.....	Do.
Albuquerque, N. Mex....	36,000	Mild.....	do.....	Do.
Butte, Mont.....	32,000	Cold.....	do.....	High.
Ogden, Utah.....	50,000	Mild.....	do.....	Low.
Tucson, Ariz.....	48,000	Hot.....	do.....	Moderate.
Bakersfield, Calif.....	44,000	do.....	do.....	High.
Cumberland, Md.....	42,000	Mild.....	do.....	Do.
Bloomington, Ill.....	36,000	Cold.....	do.....	Low.
Bangor, Maine.....	31,000	do.....	do.....	Moderate.

Group D additional cities					
City	Population (1947 estimates)	Classification characteristics ¹			
		Climate	City size	Income level	Distance to market ⁵
Cheyenne, Wyo.....	24,000	Cold.....	Large.....	High.....	A
Salina, Kans.....	23,000	Med. cold.....	do.....	Mod. low.....	B
Santa Cruz, Calif.....	22,000	Hot.....	do.....	Mod. high.....	D
Fayetteville, N. C.....	18,000	Med. hot.....	do.....	Low.....	C
Grand Junction, Colo.....	11,000	Med. cold.....	Med. large.....	Low.....	A
Barre, Vt.....	11,000	Cold.....	do.....	Mod. high.....	B
Columbia, Tenn.....	11,000	Med. hot.....	do.....	Mod. low.....	D
Antioch, Calif.....	10,000	Hot.....	do.....	High.....	C
Roseburg, Oreg.....	7,000	Med. hot.....	Med. small.....	High.....	B
Nanty Glo, Pa.....	6,000	Med. cold.....	do.....	Mod. high.....	C
Grinnell, Iowa.....	5,000	Cold.....	do.....	Low.....	D
Pecos, Tex.....	5,000	Hot.....	do.....	Mod. low.....	A
Dalhart, Tex.....	5,000	Med. hot.....	Small.....	Mod. high.....	A
Washington, N. J.....	5,000	Med. cold.....	do.....	High.....	D
Demopolis, Ala.....	4,000	Hot.....	do.....	Low.....	B
Cooperstown, N. J.....	2,500	Cold.....	do.....	Mod. low.....	C
Elko, Nev.....	5,000	do.....	do.....	High.....	A

¹ Classification characteristics are the same as those used in the construction of the Latin Square design.

² Surveyed for 1948.

³ Surveyed for 1949.

⁴ Surveyed for 1947.

⁵ See footnote 6 to table 3.

however, include a number of cities for which for particular reasons individual city data is important. For example, the probability of drawing many of the relatively small cities in some geographical regions, especially the Southwest and Mountain States in a Nation-wide sample is slight.

Experimentation with Latin Square designs, using geographic regions as a classification factor, indicated that the geographic distribution of cities selected from such designs would not be very different from that of the cities selected from the designs based on climate and income level. Therefore, it was decided that the need for individual data for such cities could be met best by purposive selection.

Furthermore, it was apparent that the variability in expenditure patterns among small places was considerably larger than that among the large cities. For this reason it seemed advisable to expand the coverage of the sample in the small city strata in order to provide estimates of expenditure patterns for small cities of various

types. Additional cities outside the Latin Square cells were also needed in order to test estimated expenditure weights derived from the sample cities. To meet these needs, it was decided to survey the largest city in each State, providing the population was 30,500 or more and the State was not already represented by a city of over 30,500 population in the selection from the Latin Square.

In addition, a city was selected randomly, proportionate to size, from each of the 6 cells of the small city classification of Group C (under 86,000) not represented in the original Latin Square. For Group D another Latin Square combination of 16 cells, with no cell of the previous selection included, was selected at random. A city was chosen within each cell of this set giving preference to cities in States not represented or to important regions and areas not covered. These extra cities, shown above, complete the list of the 97 cities in the Survey of Consumer Expenditures.

—MARVIN KOGAN
Division of Prices and Cost of Living

¹ For further discussion, see Revision of the Consumers' Price Index, Monthly Labor Review, July 1950 (p. 129), and Consumer Expenditure Study, 1950, Monthly Labor Review, January 1951, (p. 56).

² See 16th Census of the U. S. 1940 Population, Volume I, Number of Inhabitants, Bureau of the Census and Urbanized Areas, Bureau of the Census, November 15, 1949. Some States do not incorporate places of less than 10,000 population. The Census Bureau designates places in these States as urban if (1) they are made up of towns (townships) containing a village having 2,500 inhabitants or more, or (2) they contain a thickly settled area of 2,500 inhabitants or more which comprises by itself or in combination with other villages within the same town, more than 50 percent of the total population of the town.

Another type of unincorporated area classified as urban by the Census Bureau is made up of townships and other political subdivisions which have a total population of 10,000 or more and a population density of at least 1,000 persons per square mile.

The Census has designated the closely settled urban fringe in and surrounding cities as urbanized areas for the 157 cities which had 50,000 or more inhabitants in 1940. Places are included in these areas if they are contiguous to the central city, or if they are contiguous to an area already included. These places are: (1) incorporated places with 2,500 inhabitants or more; (2) incorporated places with fewer than 2,500 inhabitants provided the incorporated place includes an area with a concentration of 100 dwelling units or more; (3) unincorporated areas with at least 500 dwelling units per square mile; (4) areas devoted to commercial, industrial, transportation, recreational, and other miscellaneous uses functionally related to the central city. In addition, all outlying areas within 1½ miles of a central contiguous urban area measured along the shortest connecting highway are included as are those outlying areas within ½ mile of another outlying area which is within 1½ miles of a central contiguous urban area.

³ The percentage change was obtained as follows: (1) If located in one of the metropolitan areas of which the population was estimated by the Bureau of Census Sample Survey of 1947 (p. 21, No. 35), the percentage derived by Census was used. This percentage was applied to all places in the metropolitan district. (2) Where a special census was taken (since 1946), that figure obtained by the special census was used. (3) All other places were assumed to have increased in population at the same rate as the whole State

after allowance for places coming under (1) and (2) above. State population increase from Bureau of Census Sample Survey (p. 25, No. 12, Aug. 9, 1948).

A comparison was made between the 1947 estimates and the 1950 preliminary population reports of the Census which have just become available. Most of the estimates were within 10 to 15 percent of the 1950 count with the exception of a number of small cities and certain cities located in the western and southwestern portions of the United States. In general, the differences between the estimated and actual figures do not change the relative position of cities with respect to the population-size classes used in the sample selection.

⁴ The Census urbanized area consists of a central city or cities by which it is designated and surrounding urban area both incorporated and unincorporated. For 17 of the 157 urbanized areas established by the Census, the actual delineation had not been completed when the selection of cities was made. The metropolitan district definition was used to designate the urban boundary for these 17 areas.

Six of the designated urbanized areas were separated into sub-areas which were considered as more appropriate units for expenditure and price studies. The sub-areas (other than the central city areas) which were treated as separate sampling units in the universe follow:

(1) The New Jersey portion of the New York urbanized area; (2) The DuPage County, Ill., portion of the Chicago urbanized area; (3) The Lake County, Illinois portion of the Chicago urbanized area; (4) Will County, Ill., and Lake and Porter Counties, Ind., portion of the Chicago urbanized area; (5) The New Jersey portion (other than Camden, N. J.) of the Philadelphia urbanized area; (6) The New Kensington (and environs in Allegheny and Westmoreland counties) portion of the Pittsburgh urbanized area; (7) The Beaver County portion of the Pittsburgh urbanized area; (8) The extreme northern part of the San Francisco urbanized area consisting of parts of Contra Costa, Solano and Marin Counties of California; (9) The extreme southern part of the San Francisco urbanized area consisting of parts of San Mateo, Santa Clara, and Alameda Counties in California; (10) The Middlesex and Essex Counties, Massachusetts portion of the Boston urbanized area; and, (11) The extreme southern part of the Boston urbanized area consisting of parts of Norfolk and Plymouth Counties, Massachusetts.

⁵ For further information on the Latin Square see R. A. Fisher, *The Design of Experiments*, 3d Edition (Oliver & Boyd Ltd., London 1942), Chapter V; particularly p. 86.

Correction of New Unit Bias in Rent Component of CPI

THE UNDERSTATEMENT of the rise in rents during the past decade reflected by the rent component of the Consumers' Price Index, and by the CPI itself, has been corrected and is here described. It arose during the war and postwar years from the failure to reflect the difference between rents charged for new dwellings when they first enter the rental market and those of comparable dwellings already in the market.¹ This difference is equivalent to a price change which properly should be reflected in an index of rents and prices.

The 3-year revision program of the CPI, authorized in the fall of 1949, included comprehensive housing studies in each of the 34 city areas covered in the CPI and made the correction possible. From surveys conducted early in 1950, the Bureau of Labor Statistics is now able to announce that the correction to the rent index for the accumulated downward bias for 10 years—from 1940 to 1950—is 5.5 percent of the January 1950 rent index and 0.8 percent of the "all items" index for the 34 cities combined. Applying this correction to the January 1950 index would raise the rent index by 6.8 *index points* and the all items index by 1.3 *index points*. The amount of this correction is somewhat higher than the 1949 rough estimate which follows, because it takes into account the very high rate of new rental construction during 1949 and also because the measurement was more accurate.

Several rough estimates of the understatement had previously been made by the Bureau so that users of the CPI could appraise the extent of this "new unit" bias.² However, they were not incorporated into the CPI because of the meager data upon which they were based. In July 1949, the Bureau made its last rough estimate that, as a result of this "downward bias" from 1940 to 1949, the rent index in February 1949 was too low by something between 3½ and 5 *index points*, and that as a result the all-items index was too low by something between 0.6 and 0.9 *index points*.

Origin of New Unit Bias

The procedure used in making the correction for the "new unit" bias in the rent component

of the CPI was of course conditioned by the basic concept of the index and can be clarified by a brief review of how the bias originates.

The CPI measures average changes in retail prices of a bill of goods and services of constant quantities and qualities, purchased by moderate income families. It is designed to show the influence of price changes only, and to exclude the effect of changes in the quantities or qualities purchased. Because of the difficulty of determining which houses are identical in quality, the Bureau has measured changes in rents for samples of identical houses as a means of arriving at the change in rent for dwellings of identical quality. If the rent for a unit is not reported at the beginning and the ending months of the period for which rental change is measured, that unit is excluded from the tabulation.

Additions to the rental market (created by new construction or conversion) do not have an "earlier" rent when they first come onto the market, and therefore the procedures for calculating the index do not reflect the difference in rent between "new" units and comparable existing units. Consequently the price change—between average rents for dwellings in one period and the average rent for identical qualities of housing, including new dwellings, in a later period—which properly should be reflected in the index, is missed.

Normally in a market free from rent controls there is no consistent differential in price between "new" units and comparable existing dwellings. However, during periods of rent control, those market forces which tend to equate the rents for "new" and "old" housing of identical quality are not permitted to function.

Thus, during the war and postwar years—a prolonged period of rent control and housing shortages—additions to the rental market almost always came on the market at higher rents than those for comparable dwellings already in existence.³ It is the failure of the index to reflect this difference which introduced the consistent downward bias that is referred to as the "new unit bias" in the rent index.

At the same time, the Bureau has been unable to bring up to date frequently the sample of tenant dwellings from which rental data are obtained. Newly built rented dwellings are drawn into the samples only when a new sample is drawn. Since

1940, the Bureau has been able to revise its samples in 1942, in 1944-45, and again in 1950 as a result of the surveys upon which the Bureau based the present correction of the new unit bias.

Requirements for Making the Correction

Two kinds of data were required in order to correct the rent index for each city: (1) the proportion of the total number of rental dwellings which were additions to the rental housing market over the 10-year period; and (2) the average relative difference in rents between these and comparable existing dwellings. The volume of additions to the rental market and the relative importance of these additions to the total rental housing supply could only be determined by a sample survey of housing in each city area.⁴ While there were some data on average rents by cities, no source was available that could supply average rents for units created prior to 1940 and for units created in the last 10 years. Here again, to measure rents by quality classes, a specially designed survey of housing was required.⁵

Estimating Volume of New Rental Housing

In order to keep within the strict time schedule established for the Bureau's revision program, a third of the comprehensive housing surveys were conducted in December 1949, January 1950, and February 1950, respectively. In order to estimate the volume of new rental construction in the housing market area of each city, the surveys were designed to insure adequate representation of all kinds of blocks in the area to be covered, and at the same time to cover that area around the city which represented its housing market.

Survey Area. Boundaries established for the survey area determine to an important degree the accuracy of an estimate of the proportion of new and old dwellings. In large cities particularly, the proportion of new buildings in the suburbs has been greater than in the central city. It was therefore important that the Bureau should survey the area which included the city's primary housing market and yet not cover housing located beyond the direct competitive influence of housing in the central city.

The use of the Census standard metropolitan

area as the survey area was rejected because it included a territory too large both from the standpoint of survey cost and housing market uniformity. The metropolitan area is defined as the entire county in which the central city is located as well as adjacent counties which are closely related economically to the central city. As a result, the area takes in much rural housing, as well as communities with housing markets comparatively unrelated to that of the central city.

The new Census designation of the urbanized area, designed to separate urban and rural population more efficiently in the vicinity of large cities for the 1950 Census, was found to parallel closely the primary housing market for most cities.⁶

Accordingly, these urbanized areas were adopted in establishing the outer limits to be covered by the dwelling unit surveys in 28 of the 34 cities. In Boston, Chicago, Philadelphia, Pittsburgh, and San Francisco, the urbanized areas were too extensive to be analyzed economically and were considered to cover much more than the city's primary housing market area. After consultation with staff members of the Housing and Home Finance Agency and the Federal Housing Agency, those portions of the urbanized areas not considered a part of the primary housing market for the five cities were dropped. The New York City survey was confined to the five boroughs.⁷

Sample Design. To insure an accurate representation of all types of housing in the area in the selection of the sample of blocks, separate treatment was given to blocks that were densely populated, to blocks occupied largely by a racial minority, and to blocks and areas where housing development was considered to have been likely since 1940. On the basis of data available from the 1940 Census Bulletin of Block Statistics, the blocks in each city were separated into these strata and sampled separately. All areas in the city which in 1940 were geographically large and sparsely developed or entirely undeveloped, and the survey areas beyond the city limits were investigated by a special field survey team. This was done in order to identify areas of new construction and blocks containing apartment developments. These strata of newly developed areas (built in 1940 and after) and old developed areas were then sampled separately to insure a full representation of blocks containing new housing.

Densely populated blocks or blocks containing apartment developments were sampled relatively more heavily than small blocks or nonapartment blocks. However, within the large blocks the dwelling units were sampled at a less intensive ratio than in the small blocks. The product of the "block" ratio and the "within-block" ratio in both cases equaled the over-all sampling ratio.⁸

This procedure increased the chances of properly representing new apartment developments, particularly in those cities containing a relatively small number of such developments. It also insured a smaller sampling error on the average rent. The in-block ratios in both the small and large blocks were selected so as to yield approximately eight dwelling units (owned and rented) per block (and in most cities about four rented units per block). Analysis of the variability of rents within blocks and between blocks and the relative costs of sampling blocks and sampling dwellings within blocks, showed that, by obtaining approximately four rental units per block, about the optimum expenditure of the funds available for the survey would be achieved.

The size of the sample in each city was fixed in order to achieve two standard errors of \$1.40 on the average rent. Considerably larger samples were required to achieve the stated degree of accuracy in cities with a high variance in rent than in those with more uniform rents.

The total number of blocks and the total number of dwelling units included in the sample for each of the 34 cities are shown in table 1.

Classifying Units as "Old" and "New." Descriptive information for each dwelling in the sample was obtained by personal visit of a Bureau field representative to the dwelling. The representatives were instructed to classify each structure by whether it was built before 1920, between 1920 and 1939, or the exact year if "new," i. e., built in 1940 and after. If the occupant could not state the year the structure was built, agents attempted to get the information from longtime residents in the block. In addition, each unit in the sample was classified by whether it was created when the structure was built, or by subsequent conversion of the structure. This included structures converted from a nonresidential to a residential use, as well as units created by internal structural changes to already existing residential

TABLE 1.—Number of blocks and dwelling units sampled in the December 1949–February 1950 Surveys

City	Total number sampled		City	Total number sampled	
	Blocks	Units		Blocks	Units
Atlanta.....	446	4,300	Milwaukee.....	431	2,800
Baltimore.....	1,105	5,900	Minneapolis.....	510	3,700
Birmingham.....	566	4,100	Mobile.....	639	6,100
Boston.....	793	4,500	New Orleans.....	370	3,100
Buffalo.....	400	3,100	New York.....	1,302	9,800
Chicago.....	836	5,500	Norfolk.....	488	3,800
Cincinnati.....	434	4,000	Philadelphia.....	790	5,100
Cleveland.....	482	3,900	Pittsburgh.....	748	4,300
Denver.....	453	3,200	Portland, Maine.....	325	2,000
Detroit.....	785	5,500	Portland, Oreg.....	602	3,800
Houston.....	656	5,000	Richmond.....	466	3,200
Indianapolis.....	505	4,500	St. Louis.....	1,134	8,400
Jacksonville.....	448	2,700	San Francisco.....	474	3,500
Kansas City.....	413	3,200	Savannah.....	339	2,700
Los Angeles.....	745	5,900	Scranton.....	518	3,300
Manchester.....	393	2,300	Seattle.....	745	4,700
Memphis.....	644	4,900	Washington.....	1,367	9,800

dwellings. Typical of structural conversions were the tearing out or building of partitions, doors, or walls; or the installation of a sink, toilet, bathtub, or shower. Regardless of when the structure was originally built, units created by structural

TABLE 2.—Relative proportions of all rented and all owner-occupied dwellings built or created by structural conversion in 1940 or after, December 1949–February 1950

[In percent]

Area	Tenant-occupied		Owner-occupied	
	New ¹	Old ²	New ¹	Old ²
Atlanta.....	19	81	26	74
Baltimore.....	30	70	22	78
Birmingham.....	18	82	25	75
Boston.....	5	95	6	94
Buffalo.....	16	84	16	84
Chicago.....	4	96	15	85
Cincinnati.....	8	92	15	85
Cleveland.....	7	93	21	79
Denver.....	19	81	28	72
Detroit.....	9	91	31	69
Houston.....	33	67	53	47
Indianapolis.....	13	87	20	80
Jacksonville.....	16	84	35	65
Kansas City.....	18	82	11	89
Los Angeles.....	27	73	38	62
Manchester.....	8	92	15	85
Memphis.....	20	80	31	69
Milwaukee.....	9	91	16	84
Minneapolis.....	9	91	20	80
Mobile.....	42	58	36	64
New Orleans.....	15	85	30	70
New York City.....	10	90	11	89
Norfolk.....	44	56	35	65
Philadelphia.....	14	86	18	82
Pittsburgh.....	10	90	16	84
Portland, Maine.....	11	89	15	85
Portland, Oreg.....	31	69	22	78
Richmond.....	17	83	28	72
St. Louis.....	4	96	17	83
San Francisco.....	20	80	22	78
Savannah.....	22	78	31	69
Scranton.....	4	96	4	96
Seattle.....	29	71	30	70
Washington.....	40	60	33	67

¹ Not in existence prior to 1940.

² In existence prior to 1940.

changes in 1940 or after were considered as "new" additions to the rental market.

For each of the 34 city areas surveyed, the proportion of all existing dwellings in 1949-50 which were created in 1940 and after is shown in table 2. In 24 of the 34 cities, the proportions built in the last 10 years were greater for owner-occupied dwellings than for rented dwellings, confirming other evidences of the substantial shift to home ownership since 1940. Among the cities where a higher proportion of rental units were built since 1939, are localities where substantial public- and private-war housing developments were initiated; for example, Mobile, Norfolk, Portland, Oreg., and Washington, D. C.

In general, the greatest proportion of new rented dwellings were in southern cities; the smallest proportion was in the northeastern and midwestern cities. New tenant-occupied dwelling units range from 44 percent of the total rental market in Norfolk to 4 percent in Chicago, St. Louis, and Scranton.

Estimating Rent Differentials

The second step in the computation of the correction for the new unit bias required the separation of the sample of tenant-occupied dwelling units into groups having the same characteristics. Within each of these groupings—or cells of comparable quality—the average rent for the new and old units could then be compared to determine the difference in rent for each quality grouping on the survey date. These group or cell differences were combined with weights based on the number of new units in each quality group (quality cell) to obtain for each city the average differential in rent between new and old units of comparable quality.

Measuring Housing Quality. Any precise measure of housing quality would necessitate an expert individual appraisal of both structure and location of each old and new house. However, the size of the Bureau surveys, involving the sampling of 153,000 dwellings in 34 areas within a short period, limited the selection of quality characteristics to those that were susceptible to collection in mass surveys: namely, to those characteristics which could be ascertained by field representatives from a visual inspection of the neighborhood and the structure, and by objective and easily

understood questions to be asked of the occupants of the dwelling. By collecting simple and objective data, it was possible to obtain samples of sufficient size to reduce the sampling error to a reasonable limit. The data obtained included descriptions of the dwelling unit, the structure containing the unit, and the neighborhood.⁹

The description of the dwelling unit consisted of such items as the number of rooms and bathroom and plumbing facilities (ranging from no running water to two or more private bathrooms). Number of rooms is of primary importance in differentiating quality levels among living units in similar neighborhoods and structures; the type of bathroom facilities is highly correlated with over-all housing quality.¹⁰ Additional information obtained on the kind of facilities available in the dwellings consisted of type of cooking fuel, kind of heating equipment, kind of refrigeration, and utilities and furniture included in the rent. Quality is generally indicated in most urban housing by the use of gas or electricity for cooking and by mechanical refrigeration. A dwelling having a furnace is symptomatic of a higher housing quality than a corresponding dwelling having an old-fashioned installed heating stove.

Structural characteristics taken into account included the type of exterior building material and whether the dwelling was a single-family home, flat, or apartment. Each dwelling in the sample was classified as "dilapidated" or "not dilapidated."¹¹ A dwelling was classified as dilapidated if it had one major defect, a combination of minor defects, or inadequate original construction.

The neighborhood where each dwelling unit was located was described by the presence of such hazards as a railroad or an inter-city truck route. The extent of commercial or industrial development and the accessibility of play space and schools were also reported. At the same time, each enumerator was required to rate the neighborhood by general appearance (whether it was well kept, average, run down, very poor) and to enter his subjective rating of the quality of the neighborhood.

Because the appearance and over-all quality ratings were subjective, an effort was made to clarify and standardize the basis for each possible rating in the training sessions held in the cities prior to each survey. During the field work, supervisors made frequent checks of the inter-

viewers' evaluations of all of the items. Post-audit showed that the correlations between the over-all ratings and the objective characteristics reported were good, indicating that the ratings on over-all quality were consistent and reasonable and consequently could be used in the comparisons.

Construction of Quality Cells. Although the number of characteristics obtained in the surveys was limited, the total number of theoretically possible quality cells was enormous—more than 1.5 million. Of course, most of them would never occur since the descriptive characteristics for a dwelling are highly correlated. For example, a dwelling which contains two or more complete private bathrooms never consists of one to three rooms; and an urban dwelling with one complete private bathroom usually has modern cooking facilities. Such correlation among housing characteristics indicated the possibility of eliminating certain of the descriptive items in the construction of the quality cells. In turn, any reduction in the amount of descriptive material needed for matching new and old units accurately would correspondingly reduce the complexity and cost of the operation.

To test the practicability of simplifying the comparisons, various levels of progressively more detailed specifications were used in an experimental classification of the units into quality cells. If there was little change in the average differences in rent between new and old units, regardless of whether the units were classified by a few characteristics or by many, naturally the smaller number of characteristics could be used. In this experiment with three cities, however, it became apparent that all of the characteristics were needed.¹²

Imputing Cell Differentials. The decision to compare units using the most exact descriptions available created a further problem. In the cities covered experimentally, it was observed that as the number of characteristics used in describing the quality cells was increased, there was a greater number of quality cells of new units into which the old units failed to fit.

In dealing with these "incomplete" cells, several alternatives were considered. The problem was finally handled by assigning to each incomplete cell the differential in rent from that "complete" cell nearest to it in quality. When two or more complete cells were equally near in quality, that

cell having the nearest average rent (based only on its new units) was assigned to that of the incomplete cell. This imputation procedure was required for each of the 34 cities. It raised the differentials for 15 cities, lowered them for 18 cities, and made no change in 1 city. Typical comparisons between the differences computed from complete cells only, and differences computed from complete cells plus imputed incomplete cells follow for five cities:

	Differentials based on—	
	Complete cells	Complete cells and imputed incomplete cells
	[Old units=100]	
Atlanta.....	158	166
Buffalo.....	152	150
Chicago.....	131	137
Kansas City.....	156	152
Milwaukee.....	143	142

A further refinement of the procedure was necessary to avoid possible bias resulting from over-representing any single cell, i. e., assigning its rent differential to a disproportionate number of incomplete cells. If one cell difference was imputed to many incomplete cells the total of which contained 10 percent or more of the total number of new units in the sample, the average differential of the *three* complete cells nearest in quality was substituted to provide a more dependable imputation.

Rent Differences by Cities. The final average difference in rent between new and old rental dwellings of comparable quality obtained for each of the 34 areas is given in table 3.

TABLE 3.—Percentage difference between rentals of units coming on the market in 1940 and later, and rentals of similar older units, as of December 1949–February 1950
[Old units=100]

City	Percent new unit rentals are of comparable old unit rentals	City	Percent new unit rentals are of comparable old unit rentals
Atlanta.....	166	Milwaukee.....	142
Baltimore.....	140	Minneapolis.....	126
Birmingham.....	152	Mobile.....	114
Boston.....	166	New Orleans.....	199
Buffalo.....	150	New York.....	145
Chicago.....	137	Norfolk.....	138
Cincinnati.....	153	Philadelphia.....	118
Cleveland.....	199	Pittsburgh.....	104
Denver.....	205	Portland, Maine.....	107
Detroit.....	149	Portland, Oreg.....	121
Houston.....	137	Richmond.....	185
Indianapolis.....	122	St. Louis.....	156
Jacksonville.....	115	San Francisco.....	124
Kansas City.....	152	Savannah.....	181
Los Angeles.....	143	Scranton.....	114
Manchester.....	176	Seattle.....	150
Memphis.....	163	Washington.....	123

There is some indication of a regional pattern, with southern cities as a whole showing a greater difference than northern cities. Outstanding exceptions to the pattern in the South are Jacksonville, Mobile, and Houston. In these cities, either public war housing was substantial or rents were decontrolled.

Index Correction Factor. The relative volume of new rental housing in relation to total rental housing (table 2) and the percentage rent differences of new units over old units (table 3) were combined for each city to estimate the amount of the new unit bias and to obtain a correction factor which can be applied directly to the rent component of the CPI for each city. The actual procedure is illustrated by the calculation of the correction factor for Buffalo (rounded figures used for illustrative purposes):

	Percent
Rental units built or converted 1940 or after.....	16
Rental units built before 1940.....	84
Total.....	100
Rent difference for new units (relative to old units) ¹ ..	150
Rent difference for old units ²	100

¹ As estimated.

² By definition.

Computation of the rent index correction factor:

	Percent of total units	Relative rent difference
New units.....	16 × 150 =	24.00
Old units.....	84 × 100 =	84.00
	100	108.00

Thus, the correction factor for the rent index is +8.0 percent.

This correction factor can then be applied directly to the rent index for Buffalo to obtain the adjusted rent index as follows:

$$\text{Rent index} \quad \text{Correction factor} \quad \text{Index points to be added}$$

$$126 \times 8\% = 10$$

The correction factor to be applied to the "all items" index in each city was the product of the rent-index correction factor and the relative importance of rent to "all items."

The correction factors for the combined 34-city indexes were obtained by weighting the correction factors for each city according to the proportion of population in that city compared with total population of all 34 cities.

Correction factors for each city and the effect of the correction factors on the October 1950 rent and all items indexes by *index points* to be added are shown in table 4.

TABLE 4.—Correction to the rent index and the "all items" Consumers' Price Index for accumulated new unit bias, 1940 to January 1950

City	Month	Effect, for month indicated, on—			
		Rent index "Old series"		"All items" index "Old series"	
		Percentage adjustment ¹	Index points to be added	Percentage adjustment ¹	Index points to be added
34 cities combined..	Jan. 1950 ²	5.5	6.8	0.8	1.3
Atlanta.....	Nov. 1949	12.3	15.5	1.4	2.5
Baltimore.....	Dec. 1949	12.0	14.3	1.6	2.7
Birmingham.....	Jan. 1950	9.6	13.7	1.3	2.1
Boston.....	Jan. 1950	3.6	4.2	.6	.9
Buffalo.....	Jan. 1950	7.8	9.7	1.1	1.8
Chicago.....	Jan. 1950	1.7	2.3	.3	.5
Cincinnati.....	Jan. 1950	4.4	5.2	.5	.8
Cleveland.....	Nov. 1949	7.1	9.1	.9	1.6
Denver.....	Jan. 1950	19.7	24.8	2.6	4.3
Detroit.....	Jan. 1950	4.5	5.9	.7	1.2
Houston.....	Jan. 1950	12.2	17.2	1.6	2.7
Indianapolis.....	Jan. 1950	2.8	3.8	.4	.6
Jacksonville.....	Dec. 1949	2.3	3.3	.3	.5
Kansas City.....	Jan. 1950	9.3	11.8	1.2	1.9
Los Angeles.....	Jan. 1950	11.7	14.8	1.5	2.5
Manchester.....	Jan. 1950	5.9	6.9	.5	.9
Memphis.....	Dec. 1949	12.8	16.8	1.6	2.7
Milwaukee.....	Nov. 1949	3.9	5.1	.5	.9
Minneapolis.....	Dec. 1949	2.3	3.2	.4	.6
Mobile.....	Dec. 1949	6.1	7.8	.6	1.0
New Orleans.....	Nov. 1949	14.5	16.7	1.6	2.7
New York.....	Jan. 1950	4.6	5.0	.7	1.1
Norfolk.....	Nov. 1949	17.1	19.9	1.8	3.1
Philadelphia.....	Jan. 1950	2.5	3.0	.3	.5
Pittsburgh.....	Jan. 1950	.4	.4	.1	.1
Portland, Maine.....	Dec. 1949	.7	.8	.1	.1
Portland, Oreg.....	Jan. 1950	6.4	8.3	.6	1.1
Richmond.....	Jan. 1950	14.7	17.0	1.7	2.8
St. Louis.....	Dec. 1949	2.5	3.0	.3	.5
San Francisco.....	Dec. 1949	4.6	5.4	.5	.9
Savannah.....	Jan. 1950	17.6	20.9	1.9	3.2
Scranton.....	Nov. 1949	.6	.7	.1	.1
Seattle.....	Nov. 1949	14.7	18.4	1.7	2.9
Washington.....	Nov. 1949	9.1	9.7	1.4	2.3

¹ Small rounding differences may occur when the figures in this column are computed from the revised and old indexes for a city.

² Based on the October 1950 "old series" index the percentage adjustment in the rent index would be 5.7 percent or 7.1 index points, and for the "all items" index the percentage adjustment would be 0.7 percent or 1.3 index points. These percentages were reported with the October 1950 Consumers' Price Index release.

Sampling Error of Index Multiplier. As indicated, the index multiplier for each city's rent index is determined by the relative importance of new rental housing to all existing rental housing, and of the average difference in rent between new units and comparable old units. Since both of these figures were obtained from a survey of a sample of dwellings in each city area, the survey results may differ from those which would have been obtained from a complete enumeration of all dwellings in each city area.

It is possible to estimate the error in the index multiplier caused by sampling variability. Strictly, the index multiplier is determined by the proportions of new rental units to all existing rental units multiplied by the difference in rent for new units, plus the proportion of old rental units to all existing rental units multiplied by the difference in rent for old units. The difference for old units is always zero by definition and therefore cannot contribute any error to the index multiplier. Since the old units are proportionately more important than the new units (in 23 cities, old rental units comprised more than four-fifths of all the rental dwellings) and since there is no error contributed by the difference for old units, it was possible to calculate the index multiplier without resort to extremely large (and costly) samples.

Thus, the index multiplier is subject to only two types of sampling error: (1) the sampling error of the proportion of new rental units to all rental units, as well as the proportion of new rental units in each quality cell to all new rental units; and (2) the sampling error in the rent difference for new units within each quality cell containing new units.

Because of the lengthy and costly tabulations involved, the calculation of the sampling error of the index multiplier was limited to six cities. The cities selected include those with small and large correction factors, as well as some of the most heavily populated cities:

	Rent index		All items	
	Correction factor	Maximum difference 66 times out of 100	Correction factor	Maximum difference 66 times out of 100
Chicago.....	1.7	±0.5	0.3	±0.1
Boston.....	3.6	±.5	.6	±.1
New York.....	4.6	±.5	.7	±.1
Washington....	9.2	±1.3	1.4	±.2
Los Angeles....	11.7	±1.6	1.5	±.2
Houston.....	12.2	±1.6	1.6	±.2

Figures for the six cities show a strong tendency for the size of the error to correlate with the size of the correction factor. On the basis of this correlation the *sampling* error for the 34 large cities combined can be estimated. The chances are 19 in 20 that the 5.5 percent correction factor for the 34 large city rent index in January 1950 is within the range of 5.1 to 5.9 percent; and the chances are 19 in 20 that the 0.8 percent correction

TABLE 5.—Estimated accumulation of the new unit bias for the periods 1940-46 and 1947-49

City	Percentage adjustment 1940-46 ¹		Percentage adjustment 1947-49 ¹	
	Rent index	All items index	Rent index	All items index
34 cities combined.....	1.4	0.2	4.0	0.6
Atlanta.....	1.9	.2	10.2	1.2
Baltimore.....	3.4	.4	8.3	1.2
Birmingham.....	1.7	.2	7.8	1.1
Boston.....	.7	.1	2.9	.5
Buffalo.....	2.5	.3	5.2	.8
Chicago.....	.5	.1	1.2	.2
Cincinnati.....	.7	.1	3.7	.4
Cleveland.....	2.5	.3	4.5	.6
Denver.....	3.0	.4	16.2	2.2
Detroit.....	2.1	.3	2.4	.4
Houston.....	2.3	.3	9.7	1.3
Indianapolis.....	.9	.1	1.9	.3
Jacksonville.....	1.0	.1	1.3	.2
Kansas City.....	1.4	.2	7.8	1.0
Los Angeles.....	2.1	.2	9.4	1.3
Manchester.....	1.3	.1	4.5	.4
Memphis.....	2.2	.3	10.4	1.3
Milwaukee.....	.7	.1	3.2	.4
Minneapolis.....	.7	.1	1.6	.3
Mobile.....	4.0	.4	2.0	.2
New Orleans.....	4.0	.4	10.1	1.2
New York.....	.7	.1	3.9	.6
Norfolk.....	10.6	1.1	5.9	.7
Philadelphia.....	.7	.1	1.8	.2
Pittsburgh.....	.1	(²)	.3	.1
Portland, Maine.....	.4	.1	.3	(²)
Portland, Oreg.....	3.4	.3	2.9	.3
Richmond.....	2.1	.2	12.3	1.5
St. Louis.....	.8	.1	1.7	.2
San Francisco.....	2.6	.3	2.0	.2
Savannah.....	8.8	.9	8.1	1.0
Scranton.....	.1	(²)	.5	.1
Seattle.....	6.7	.7	7.5	1.0
Washington.....	3.2	.5	5.7	.9

¹ When the adjustments for the 2 periods are multiplied together (after adding 100.0 to each figure) the total adjustment in table 4 can be obtained.
² Less than 0.05 percent.

factor for the 34 large city "all items" index in January 1950 is within the range of 0.7 to 0.9 percent.

Yearly Accumulation of New Unit Bias. Most of the understatement in the rent index accumulated during the period from 1947 through 1949. The indexes have not been revised by years for 1940-49, because of lack of precise information on the difference in rent between the new units and the old units of comparable quality at the time that the new units entered the market. The present correction was necessarily based on the difference in rent (between new and old units) existing at the time that the comprehensive housing surveys were made. By utilizing the research work involved in making the Bureau's earlier estimate of the new unit bias,¹³ it is possible to estimate roughly the yearly fluctuations in the differentials. Using these rough estimates in conjunction with the known volume of new construction by year, a

general estimate can be made of the 10-year accumulation by years. Table 5 shows the distribution of the correction before 1947, and for the years 1947 and after. The corrections for most of the cities in the early years were too small to affect the over-all index. It must be emphasized that the estimates appearing in table 5 are subject to considerable error, but they give the approximate magnitude closely enough to be of use for research purposes.

—GEORGE JOHNSON and BRUNO SCHIRO
Division of Prices and Cost of Living

¹ References to this problem were made in the following publications: The Cost of Living Index of the Bureau of Labor Statistics, a mimeographed report, February 25, 1944; The Report of the President's Committee on the Cost of Living, 1945; a technical note released with the September 1946 Consumers' Price Index; a technical note in the January 1948 Monthly Labor Review, Residential Rents Under the 1947 Housing and Rent Act; a technical note appearing quarterly in Construction, beginning with the March 1948 issue; a technical note in the BLS regular Monthly Release of the Consumers' Price Index, beginning in July 1948; The Rent Index: Part 1—Concept and Measurement, and Part 2: Methodology of Measurement, in Monthly Labor Review, December 1948 and January 1949; and Estimate of New Unit Bias in CPI Rent Index, Monthly Labor Review, July 1949. The present article and supplementary information will appear in a forthcoming reprint.

² See the Rent Index: Part 2—Methodology of Measurement, Monthly Labor Review, January 1949 (pp. 66-67). Also reprinted as Serial No. R. 1947; and Estimate of New Unit Bias in CPI Rent Index, Monthly Labor Review, July 1949, or Reprint Serial No. R. 1965.

³ Federal rent controls were not in effect until 1942, but additions in 1940 and after were included as "new" units because in many cities rents were "rolled back" to their levels as of January and April 1941, and in Washington, D. C., as of January 1940. Furthermore, in many cities in which rents were frozen as of March 1942, voluntary fair rent commissions had been in operation earlier with varying degrees of effectiveness. To some extent, therefore, new units tended to come onto the market at levels higher than comparable existing dwellings in these earlier years.

New rental units were controlled by the Federal rent regulations as they came on the market, but due allowance was made for increased construction costs in setting their controlled rents. As a result the accumulated "new unit bias" remained relatively small until 1947; beginning in 1947, it increased sharply because new dwellings created by construction and conversions were removed from rent control while existing dwellings remained under control.

⁴ In its previous estimate of the extent of the "new unit bias," the Bureau relied on building permit data published by its Construction Division. Several assumptions had to be made in using these data. First, for individual cities, no information was available on starts or completions; so it was as-

sumed that the number of dwelling units authorized equalled the number of dwelling units built. Secondly, it was assumed that all dwelling units in two-family and multifamily structures were built for rent, and that all single-family structures were built for sale. No information on conversions was available for individual cities. See Estimate of New Unit Bias in CPI Rent Index, Serial No. R. 1965.

⁵ In the earlier estimate of the new unit bias, the Bureau estimated the differentials on the basis of general economic data, with the help of opinion surveys conducted by the price control agencies. No attempt was made to estimate differentials separately for each city. See Serial No. R. 1965.

⁶ The urbanized area was determined primarily by housing density and by transportation ties to the central city. The districts outside the city limits which were defined by the Census as a part of the urbanized area in 1949, included those areas contiguous to the central city with a density of at least 500 dwelling units per square mile. Also included were noncontiguous areas with a similar density within 1½ miles of the central contiguous area by the shortest route. Farther outlying areas within a half mile of the secondary urban core and meeting the density requirement were also included.

⁷ There is some evidence to indicate that had the Bureau surveyed the Census standard metropolitan area, rather than the smaller Census urbanized area, the relative importance of all newly created dwellings (both tenant- and owner-occupied, built in 1940 or later) might have been somewhat higher. Rough calculations from Census preliminary April 1950 housing counts for the metropolitan areas showed that for most of the 34 cities this proportion was higher for the standard metropolitan area than for the urbanized area, but for only 10 cities was the difference greater than 5 percentage points. Much of this difference resulted from the considerably larger proportion of owner-occupied dwellings constructed in the outlying portions of the standard metropolitan area. These differences would therefore not have been as great for rental dwellings only, which alone affected the calculation of the new unit bias correction.

⁸ For example, in San Francisco, every ninth large or apartment block was included in the sample, but only every seventeenth unit was sampled within these blocks; and every fifty-first small block was included in the sample, but every third dwelling was included in the sample within these small blocks.

⁹ It might have been desirable to include among the quality characteristics such items as dimensions of rooms, window area, size of closet space, degree of maintenance, and location within structure. However, this would have required the services of housing experts rather than the part-time enumerators employed. The alternative of accepting tenants' opinions on the value of such characteristics would have introduced substantial error.

¹⁰ As an example of the prevalence in many cities of substandard bathroom facilities the percentages of rental dwelling units not having a minimum of one complete private bathroom are given for six cities: Birmingham 64 percent; Savannah 53 percent; Memphis 53 percent; Mobile 44 percent; Atlanta 39 percent; and St. Louis 35 percent.

¹¹ According to the definition of dilapidation developed for the 1950 Census by the Technical Advisory Committee on Housing Statistics.

¹² Although 11 main descriptive characteristics are mentioned, each was subdivided to provide further detail. As an example, 10 combinations of plumbing and bathroom facilities were possible, 2 descriptive items for cooking equipment, 2 for refrigeration, 3 descriptive items for heating equipment, 6 kinds of exterior building material, etc., to describe a dwelling unit. In the final comparison, 48 descriptive characteristics were available to describe the dwelling units, providing a theoretical maximum of 1.6 million quality cells, or combinations of characteristics, to describe the housing in a given city.

¹³ See Estimate of New Unit Bias in CPI Rent Index, Monthly Labor Review, July 1949 (p. 44).

Recent Decisions of Interest to Labor¹

Wages and Hours²

Criminal Contempt—Payment of Wage Reparations to Employees. A United States appellate court affirmed³ a district court's judgment convicting employers of criminal contempt of court and sentencing them to pay fines totaling \$10,000 and costs of prosecution, because of their violations of an injunction requiring compliance with specific provisions of the Fair Labor Standards Act. However, the district court's award of wage reparations to certain employees covered by the act was reversed on the ground that such relief was appropriate only in a civil contempt action.

In 1941, a suit was commenced by the Secretary of Labor in a Federal district court against the employers to restrain violations of the minimum wage, overtime, "hot goods," and record-keeping provisions of the FLSA. The injunction was granted. Three years afterward a criminal prosecution was instituted in the same forum for violation of the injunction. A judgment was entered against the employers directing them to pay overtime wages which they had withheld in violation of the injunction.

In 1949, a second prosecution for criminal contempt of the injunction was instituted in the district court. That tribunal again rendered a judgment against the employers. However, in addition to requiring them to pay \$10,000 in fines, it directed the payment of wage reparations to certain employees who had not been compensated for work performed in excess of 40 hours a week.

In the appellate court, the employers contended that the award of wage reparations was improper, on the ground that the Government sought and obtained only a judgment for criminal, as distinguished from civil, contempt, and that the former was actually rendered against them. They argued that a wage-reparations award is appropriate only in a judgment for civil contempt, since it is a compensatory fine payable to its employees.

Upholding the employers' contention, the court observed that Federal courts had previously⁴ recognized that the same acts may constitute both criminal and civil contempt, and that a judgment for both types may be had in a single proceeding. However, both forms of contempt must be appropriately sought. Stating that the Govern-

ment had not sufficiently indicated that it sought a judgment for civil contempt, the appellate court concluded that such a judgment cannot be supported by a proceeding which was initiated and carried through solely as one involving criminal contempt.

Labor Relations

Discharge for Failure to Take Union Oath and Attend Meetings. Employees who tender periodic dues and initiation fees, which are uniformly required as a condition of acquiring union membership under a union-shop contract, may not lawfully be discharged from their employment for failure to take a union loyalty oath and attend union meetings. A Federal court, affirming a National Labor Relations Board order directing a union and an employer to pay back wages to the employees so dismissed, held⁵ that their discharge constituted a violation of sections 8 (a) (3) and 8 (b) (2) of the National Labor Relations Act as amended by the Labor Management Relations (Taft-Hartley) Act.

The labor organization and employer had executed a union-shop security contract, which required, as a condition of employment, membership in the union within 30 days from date of the contract or from date of employment, whichever was later. Certain employees tendered the requisite dues and initiation fees, but refused to attend a meeting in which their membership applications were to be voted upon, or to take an oath of loyalty to the union. On advice of a union representative that the employees were not members in good standing, the employer discharged them—not because of failure to pay the dues and initiation fees, but on the ground that they failed to fulfill their other union obligations.

Section 8 (a) (3) of the LMRA makes it an unfair labor practice for an employer, by discrimination in regard to hire or tenure of employment, to encourage or discourage membership in any labor organization. The section, however, does permit him to make an agreement with a union (commonly referred to as a union-shop contract), requiring membership in the contracting labor organization within a certain period as a condition of employment. An employer may not justify any discrimination against an employee for nonmembership in a labor organization, however, if he has reasonable grounds to believe (a) that membership was not available to the employee on the same terms and conditions generally applicable to other members, or (b) that membership was denied or terminated for reasons other than the payment of periodic dues and initiation fees uniformly required by the union. Section 8 (b) (2) similarly makes it unlawful for a union to cause or attempt to cause an employer to discriminate against an employee when membership was denied or terminated for reasons other than failure to tender the requisite fees.

Urging that the Board's order awarding back pay be set aside, the union argued that since all employees were required to attend meetings and subscribe to an oath,

membership was available to the discharged employees on the same terms applicable to other employees. Therefore, the union contended, the discharge of these employees could be lawfully demanded on the ground that they had failed to fulfill nondiscriminatory conditions.

While the court agreed that a union has the right under the LMRA to withhold membership for nondiscriminatory reasons, the legislative history of the act, nevertheless, forbade the union from seeking the dismissal of the employees on these grounds. This conclusion was gleaned from a statement by one of the bill's sponsors: "The union could refuse the man admission . . . but if he were willing to enter the union and pay the same dues as other members of the union, he could not be fired from his job because the union refused to take him."

Dues Increase for Nonattendance a Fine. Discharge of an employee for failure to pay an added union-dues assessment because of nonattendance at union meetings constituted an unfair labor practice, since this sum amounted to a fine rather than "periodic dues," within the meaning of sections 8 (a) (3) and 8 (b) (2) of the LMRA. This was the ruling of the NLRB⁶ which ordered reinstatement of the employee and payment to him of back wages by both the employer and the union.

The union membership passed a motion increasing monthly dues from \$1.50 to \$2, with the further provision that those members who attended each of the monthly union meetings would be exonerated from payment of the additional 50 cents. In practice, this additional charge did not become due until after a member had failed to attend a meeting. The constitution of the international union fixed the monthly dues at \$1.50 without indicating that locals could increase this amount. The constitution did specifically authorize the levying of "fines" for nonattendance at membership meetings.

Pursuant to a valid maintenance-of-membership agreement, the union asked the employer to discharge one of his employees because of his delinquency in paying the additional charges which had accrued as a result of the employee's failure to attend a number of union meetings. This the employer did. As a result, unfair labor practice proceedings against both union and employer were instituted before the NLRB.

Sections 8(a)(3) and 8(b)(2) prohibit discharge of an employee under a union-security agreement if union membership is denied or terminated for reasons other than the failure "to tender periodic dues and the initiation fees uniformly required as a condition of acquiring or retaining membership." In ordering reinstatement of the employee and payment of back wages, the Board ruled that the additional 50-cent charge imposed upon him was not an element of "periodic dues" which were "uniformly required" of all employees. The Board stated: "A charge which distinguishes between individual members who attend particular meetings and those who do not attend particular meetings, in our opinion, is not one 'uniformly'

applied." The Board concluded that in order for a charge to be "uniform," it must be made against all members alike, or if not, then any distinctions in amount must be based upon reasonable general classifications. These conditions were found lacking.

NLRB Jurisdiction over Taxicab Company. Applying its recently formulated policy with respect to the assumption of jurisdiction, the NLRB ruled⁷ that a New York taxicab company was engaged in interstate commerce within the meaning of the LMRA. The Board entertained a union petition for a representation election, thereby reversing an earlier decision in which it declined to assert jurisdiction over the same company.

In an earlier proceeding,⁸ the union filed a petition for a representation election, seeking to establish its status as the exclusive bargaining representative of the cab company's drivers. Evidence showed that 6 percent of the trip-ticket entries concerned trips to or from terminals of other interstate common carriers; that all new cabs were purchased in Michigan through a New York distributor; and that 40 percent of the company's purchases of parts and accessories were made from out-of-State manufacturers and shipped directly to the purchaser. However, the company had no carrier or terminal concessions, nor did it make any trips outside of New York State. The Board dismissed this proceeding on the ground that the company was not engaged in interstate commerce.

Since its earlier decision, the Board had re-examined its policy concerning the exercise of jurisdiction. The present criterion of jurisdiction demands a mathematical assessment of the employer's interstate contacts, and includes such factors as the amount of revenues derived from interstate transactions, the proportion of purchases made from sources outside the State, and the nature of the business operations.

In applying the new criterion, the Board reversed its earlier ruling. It stated: ". . . the factors which impelled us to assert jurisdiction over other such instrumentalities [of interstate commerce] are operative here." It further concluded that the company's operations were an essential link in the services performed by the various rail, bus, air, and water carriers to and from which the taxis made trips.

Injunction Against Picketing Binding on Nonemployees. The Tennessee court of appeals held⁹ that an injunction restricting picketing and forbidding violence during a strike extended to pickets who were not parties to the injunction proceeding, were not employees of the employer involved in the strike, did not wear a picket sign, and had no intent to violate the injunction. It therefore affirmed a judgment of contempt against the pickets.

An employer had obtained an injunction against striking employees, restraining them from picketing en masse and from threatening violence to nonstriking workers. Notwithstanding the injunction, the strikers continued to picket in such a way as to block ingress and egress to the

employer's plant. They were joined by two persons who were not members of the employer's working force. One had left his employment prior to the strike. The other was picketing in place of his mother. Neither bore signs indicating that they were pickets.

In holding these persons bound by the injunction, and therefore in contempt for violating its mandate, the court stated: "In view of the admitted sympathetic attitude of all the . . . [nonemployees] for the cause, their availability to assist in the act of obstruction, their close proximity to those actually effecting the obstruction, and their obvious approval of the act, it matters not which ones wore the signs, or physically stood in or walked across the driveway, or whether they were employees . . ." The court concluded that a person not a party to the injunction proceeding is nevertheless punishable for contempt, if, with knowledge of the injunction, he aids or abets another in violating it.

Limitation on Featherbedding Ban. In an extensive analysis of the "featherbedding" provision of the LMRA, the NLRB ruled¹⁰ that a musicians' union which refused to permit "name bands" to appear at a local theater, unless the management agreed to employ local musicians for a specified number of days thereafter, did not offend the featherbedding prohibition contained in section 8 (b) (6) of the act. The section makes it an unfair labor practice for a union to cause or attempt to cause an employer to pay money or other thing of value, in the nature of an exaction, "for services which are not performed or not to be performed."

Prior to the passage of the LMRA, the union made a practice of demanding payment for local musicians who stood by while an out-of-town band performed. The services of these local artists were rarely utilized, and generally they failed to appear at the theater on the days for which they were paid. After enactment of the statute, the union insisted that a local orchestra be actually employed following the performance by a "name band." The theater management refused to accede to this request, contending that it neither needed nor wanted such services. Protracted negotiations with respect to the matter proved unsuccessful. When the union prohibited certain prominent musical groups from performing at the movie house, the management instituted Board proceedings charging the union with unlawful featherbedding practices.

In dismissing the charges against the union, a majority of the Board pointed out that under both the Wagner (NLRA) and the Taft-Hartley (LMRA) Acts, it was and is perfectly lawful for a labor organization to seek employment for its members.¹¹ The inclusion of section 8(b) (6) in the latter law, the Board stated, was not intended to proscribe such activity. Nor was the section meant to reach cases in which a labor organization seeks actual employment for its members, even when the employer does not want, does not need, and is not willing to accept such services. Observing that nothing in the testimony

received by the trial examiner indicated that the union had reverted to its pre-LMRA practices whereunder local orchestras were paid without giving any performances, the Board concluded that the union's insistence upon actual employment for such orchestras did not constitute a violation of section 8(b) (6).

Member Reynolds, dissenting, took sharp issue with the Board's conclusion. He argued that such a construction of the featherbedding ban would permit unions to avoid liability in all cases by the simple expedient of insisting on the performance of work which did not exist and which was unwanted. He added that Congressional concern over stand-by labor practices "did not turn upon the willingness of the 'stand-by' to make his unneeded services available to the prospective employer because no distinction was made between the 'stand-by' who intended to do no work and the 'stand-by' who actually sought to perform unneeded work. The expressed concern of the legislature was, rather, with the fact that 'stand-by' hiring practices represented a device for securing payments to persons who did not already enjoy employee status and whose 'employment', in the circumstances, would yield no corresponding benefit to the employer."

Union "Hiring Hall". With two members dissenting, the NLRB¹² held that a collective bargaining contract which, by its terms, merely requires an employer to notify a union of vacancies—the union agreeing, when requested, to supply personnel to the employer within a few days—does not constitute an illegal closed-shop hiring-hall arrangement in contravention of the LMRA. The majority of the Board found that neither the written contract nor any independent oral understanding stipulated that the workers be obtained from the union, or that only union members be employed.

On October 16, 1948, the employer (a contracting company), the local, and the international union executed an agreement which provided that when the contractor requires employees to perform the work included within the scope of the agreement, "the contractor agrees to notify the local union having jurisdiction of the job of the number of employees and classifications required. When the local union is requested to furnish men, the union agrees to supply the contractor" within 2 to 3 days after the date for which men are requested.

The majority of the Board determined that this phraseology did not mean that union workers must be obtained only from the local union. However, the dissenters found the contract ambiguous in this regard, and suggested that attention be directed to the practice of the parties, to determine the meaning of the provisions. This practice, according to testimony before the trial examiner, showed that virtually all employees were obtained from the local's hiring hall, where, it appeared, preference was accorded to members. The minority, therefore, held that the contract as interpreted by the parties was unlawful. In this respect, they differed with the majority who were content to look at the contract alone.

Norris-LaGuardia Act Applicability to Federal Court in Alaska. A District Court for the Territory of Alaska held¹³ that the Norris-LaGuardia "Anti-Injunction" Act does not deprive it of jurisdiction to entertain an action for injunctive relief arising out of a dispute between union members over the right to control union funds and to exercise its authority. The court asserted its general equity jurisdiction, conferred by other acts of Congress, in granting the appropriate relief.

The Norris-LaGuardia Act declares that "no court of the United States shall have jurisdiction to issue any restraining order or temporary or permanent injunction in a case involving or growing out of a labor dispute. . . ." Avoiding the question of whether the action involved a labor dispute, the court concluded that it was "obviously not a 'Court of the United States'" within the meaning of the act. In support of this conclusion, the court adverted to an earlier appellate decision¹⁴ which construed the statute as inapplicable to a Federal Court in Hawaii. The appellate court reasoned that the term "Court of the United States" had reference to those "constitutional" courts which Congress has established under Article III of the Federal Constitution, rather than the "legislative" courts which are governed by Article IV, whereunder Congress possesses the power "to dispose of and make all needful rules and regulations respecting the territory . . . of the United States."

Veterans Reemployment

Seniority Not Protected in Higher Position Granted in Violation of Contract. A Federal District court decided¹⁵ that the reemployment statutes do not confer or protect seniority beyond that provided under contract, if a veteran receives after military service a promotion he would in all probability have received if continuously on the job, but to which he had no contractual right. A system federation bargained with a railroad, in separate collective agreements covering laborers and shop-craft helpers and mechanics. Seniority was in no way made transferable. Helper seniority in the shop crafts began under the agreement only when helper work began. The agreement covering laborers provided that members of its bargaining unit should be "given consideration for promotion" to shop positions; that such promotions were to be based on ability, merit, and seniority—management to be the judge. The railroad was not required to and did not fill vacant or new machinist-helper positions by promoting laborers to the exclusion of persons not within the laborer unit. Nor did it advance in strict seniority order such laborers as were promoted.

Certain veterans inducted as laborers were reinstated in laborer positions. During their absence many laborers had been assigned to helper positions and held helper seniority. The reinstated laborer veterans were immediately promoted to helper positions, and on promotion began helper work. They were then assigned seniority

dates which would put the veterans ahead of the next junior laborers promoted during the veterans' military service. After a protest by the bargaining agency claiming a breach of contract and practice, the system federation and the railroad made an agreement by which the seniority date of these veterans was changed to the date upon which each first performed helper work. The veterans commenced action claiming that this violated their right to be restored without loss of seniority. The court decided no statutory right was violated, and that the new contract merely rectified a breach of the old.

The controlling rules of law applied by the court were stated as follows: Seniority rights guaranteed a veteran by the reemployment statutes are only those provided by agreement and controlling practice. Seniority as laborer cannot count as machinist-helper seniority prior to actual promotion because the seniority is in a different class. A presumption or strong probability that a veteran would have been promoted, if he had been present during the period of his military service, affords no right to seniority in the promoted position, when such seniority contractually counts from the beginning of actual work. A contract between union and employer which reduces a veteran's seniority to correct a violation of the existing agreement is not in conflict with the reemployment statutes.

Unemployment Insurance

Availability for work—Limitation to Night Hours (New Hampshire). The New Hampshire Supreme Court held¹⁶ that a member of the State Legislature, who worked for 4 years on the night shift at a mill, and attended legislative sessions during the day, was entitled to unemployment compensation when he lost his mill job. While the State statute requires that a claimant for benefits be available for work, a claimant who limits the hours during which he is willing to work meets that requirement if there is in the locality a market for his services during the hours that he offers them.

Allergy to Paint Good Cause for Refusing Work (Pennsylvania). A stock clerk with 22 years' experience was offered a transfer to spray painting when a reduction in the employer's business necessitated a lay-off in the stockroom. He refused the job because he was allergic to paint, and applied for unemployment compensation. The Pennsylvania Supreme Court held¹⁷ that the claimant had not "refused suitable work without good cause" so as to be disqualified for unemployment benefits.

Labor-Dispute Disqualification—Meaning of "Establishment." A strike at an automobile plant in Michigan, which resulted in a temporary stoppage of work at the company's assembly plants scattered throughout the United States, became the basis of recent court decisions in five States. The question in each case was whether the assembly plant and the manufacturing plant con-

stituted a single "establishment" within the statutory provisions of the respective State laws. These provisions disqualify for unemployment-compensation benefits individuals who are out of work due to a stoppage caused by a labor dispute at the establishment where they were last employed.

The Georgia Supreme Court,¹⁸ reversing a lower court decision, held that both plants were engaged in the single task of producing automobiles, and hence constituted a single "factory, establishment, or other premises." The Minnesota,¹⁹ New Jersey,²⁰ and Virginia²¹ Supreme Courts, and the Appellate Division of the New York Supreme Court²² held that the assembly plants in their respective States were not part of a single establishment with the company's manufacturing plant. These courts reasoned that over-all functional and managerial integration is not enough to make two plants a single establishment, when hiring, firing, and seniority are on a local basis, and when the plants are widely separated geographically.

¹ Prepared in the U. S. Department of Labor, Office of the Solicitor.

The cases covered in this article represent a selection of the significant decisions believed to be of special interest. No attempt has been made to reflect all recent judicial and administrative developments in the field of labor law or to indicate the effect of particular decisions in jurisdictions in which contrary results may be reached, based upon local statutory provisions, the existence of local precedents, or a different approach by the courts to the issue presented.

² This section is intended merely as a digest of some recent decisions involving the Fair Labor Standards Act and the Portal-to-Portal Act. It is not to be construed and may not be relied upon as interpretation of these acts by the Administrator of the Wage and Hour Division or any agency of the Department of Labor.

³ *Tobin v. Piolet* (C. A. 7, Jan. 23, 1951).

⁴ *United States v. United Mine Workers of America* (330 U. S. 258 (1947)).

⁵ *Union Starch & Refining Co. v. NLRB* (C. A. 7, Feb. 2, 1951).

⁶ *In re Electric Auto-Lite Co.* (92 NLRB No. 171, Dec. 29, 1950).

⁷ *In re Skyview Transportation Co.* (92 NLRB No. 251, Jan. 26, 1951). (Supplemental decision.)

⁸ *In re Skyview Transportation Co.* (90 NLRB No. 268, Aug. 15, 1950).

⁹ *American Snuff Co. v. United Steel Workers of America (CIO)* (Tenn. Ct. App., Jan. 11, 1951).

¹⁰ *In re American Federation of Musicians, Local No. 24* (92 NLRB No. 210, Jan. 24, 1951).

¹¹ Unless, of course, the conduct involved falls within the proscriptions of section 8 (b) (4) (D) of the amended act.

¹² *In re American Pipe and Steel Corp.* (93 NLRB No. 11, Feb. 7, 1951).

¹³ *Nashoolook v. Downey* (D. C., Alaska, Feb. 2, 1951).

¹⁴ *International Longshoremen's Union v. Wirts* (170 F. 2d 183 (9th Cir. 1948)).

¹⁵ *Gregory v. Louisville & Nashville R. R.* (D. C., W. D. Ky., Sept. 15, 1950).

¹⁶ *Sledzianowski v. Board of Review* (Pa. Super. Ct., Nov. 16, 1950).

¹⁷ *Roukey v. Riley* (N. H. Sup. Ct., Dec. 5, 1950).

¹⁸ *Ford Motor Company v. Abercrombie* (Ga. Sup. Ct., Nov. 15, 1950).

¹⁹ *Nordling v. Ford Motor Company* (Minn. Sup. Ct., Apr. 28, 1950).

²⁰ *Ford Motor Co. v. New Jersey Department of Labor & Industry* (N. J. Sup. Ct., Nov. 6, 1950).

²¹ *Ford Motor Co. v. Unemployment Compensation Commission* (Va. Sup. Ct., Jan. 15, 1951).

²² *In re Machcinski* (N. Y. App. Div., Jan., 1951).

The number of applications for retirement annuities under the Federal railroad retirement system during the last half of 1950—15,800—was the smallest for any half-year since 1946. The reduction is attributed mainly to the usual seasonal decline in the latter months of a calendar year and to the stepped-up economy as the country moved toward a period of national emergency. Awards, numbering 15,500, were 24 percent below the total for the first half of 1950. The average monthly annuity awarded during July–December 1950 was \$75.35. About half the annuitants represented in the awards were credited with 30 years' service. Nearly a third received disability annuities.

A sharp decline also characterized operations under the Federal railroad unemployment insurance program during the second half of 1950 as compared with the same period in 1949. Applications decreased 60 percent (from 453,000 to 181,000) and beneficiaries 71 percent (from 368,000 to 106,000). Net amount of benefits paid fell 80 percent (from \$67.1 million to \$13.1 million). Average benefits paid per beneficiary fell from \$168 to \$110.

— Information taken from Monthly Review, U. S. Railroad Retirement Board, Chicago, Feb. 1951 (pp. 28–30).

Chronology of Recent Labor Events

February 15, 1951

THE WAGE STABILIZATION BOARD, in General Regulation 7, granted exemption from its control to religious, charitable, and educational institutions not required to pay Federal income taxes. (Source: Federal Register, vol. 16, No. 38, Feb. 24, 1951, p. 1791.)

On February 16, labor members of the WSB, on orders from the United Labor Policy Committee (see Chron. item for December 14, 1950, MLR Feb. 1951), withdrew over a conflict with public and industry members involving a new wage formula (General Regulation 6). The regulation, adopted by the public and industry members, was forwarded to the Economic Stabilization Administrator for approval. (Source: Washington Post, Feb. 16, 1951.)

On February 27, the Economic Stabilization Administrator approved General Regulation 6, to replace the general over-all wage freeze of January 26 (see Chron. item for January 26, 1951, MLR, March 1951) and to permit pay and salary increases up to 10 percent over January 15, 1950, levels, without Board approval. Overtime premium payments and other "fringe" benefits, if covered by existing agreement, are excluded from the 10-percent formula, but all future "fringe" allowances must come within that limit. At the same time, the Economic Stabilization Administrator asked the WSB to reconvene and requested 7 adjustments to the regulation. (Source: Federal Register, vol. 16, No. 41, March 1, 1951, p. 1951; and ESA Press release, Feb. 27, 1951.)

On February 28, the United Labor Policy Committee ordered all labor representatives to withdraw from Federal mobilization agencies. (Source: New York Times, March 1, 1951.)

On March 1, the Economic Stabilization Administrator issued General Regulation 8, permitting cost-of-living increases, under escalator clauses signed prior to the general wage freeze. (Source: Federal Register, vol. 16, No. 43, March 3, 1951, p. 2032.)

On March 8, the Economic Stabilization Administrator issued Amendment 1 to General Regulation 8, permitting increases for all non-negotiated cost-of-living agreements that were formally determined and communicated to employees on or before January 25, 1951. (Source: Federal Register, vol. 16, No. 48, March 10, 1951, p. 2222.)

On March 8, the Economic Stabilization Administrator issued General Regulations 9 and 10, establishing wage and salary rates for employees of new plants, and permitting increases in "tandem" relationships, where increases would have been automatic and applicable to work performed on or before February 9, 1951, except for the over-all wage freeze, respectively. (Source: Federal Register, vol. 16, No. 48, March 10, 1951, pp. 2222-2223; for discussion, see p. 409 of this issue.)

February 16

THE NATIONAL LABOR RELATIONS BOARD, in the case of *Missouri Boiler and Sheet Iron Works and J. E. Russom*, ruled that employer's use of union's employment agency facilities in filling vacancies is not, in itself, violative of amended NLRA. (Source: Labor Relations Reporter, vol. 27, No. 33, 27 LRRM, Feb. 26, 1951, p. 1382.)

THE Textile Workers Union of America (CIO) called an industry-wide strike in the woolen and worsted cloth industry—the first in its 11-year history. It affected 70,000 workers in 160 plants. (Source: CIO News, Feb. 19, 1951, and Washington Post, Feb. 17, 1951.)

February 17

THE U. S. DEPARTMENT OF LABOR established the Division of Industrial Services in the Bureau of Employment Security, to be concerned with the utilization of defense and essential civilian manpower. (Source: U. S. Department of Labor Press release, BES 51-2800, Feb. 17, 1951.)

February 19

THE NLRB, in the case of *Amalgamated Meat Cutters & Butcher Workmen of North America, Local 303 (AFL) and Western, Inc.*, ruled that the union did not violate the amended NLRA by voting in a union meeting to list an employer as "unfair," but that the union violated the secondary boycott ban of the act by inducing employees of a secondary employer at their place of work to engage in boycott activities by telling them about the "unfair" listing. (Source: NLRB Press release, R-356, Feb. 23, 1951.)

THE Brotherhood of Railroad Trainmen (Ind.) pleaded guilty to a charge of civil and criminal contempt of court in the strike of switchmen of January 30, 1951 (see Chron. item for January 30, 1951, MLR March 1951), and was fined \$75,000 by a judge of the Federal District Court in Washington, D. C. (Source: New York Times, Feb. 20, 1951.)

THE United Automobile, Aircraft & Agricultural Implement Workers of America (CIO) and the Ford Motor Co. signed an area-wide seniority agreement covering 5 plants in the Detroit region. The agreement covers 80,000 workers and insures seniority rights, in case of lay-offs, at any of the 5 plants. (Source: CIO News, Feb. 26, 1951.)

February 20

THE CIO launched a drive to enlist 1.5 million department store workers under a newly formed Department Store Workers Organizing Committee. (Source: CIO News, Feb. 26, 1951.)

February 23

THE NLRB, in the case of *Jamestown Builders Exchange, Inc. and International Brotherhood of Teamsters, Chauffeurs, Warehousemen & Helpers of America, Local 649 (AFL)*, ruled that in determining whether or not to assert jurisdiction in secondary boycott cases under the Labor Management Relations Act, the Board will consider the operations of both primary and secondary employers. (Source: NLRB Press release W-179, Feb. 28, 1951.)

February 26

THE SUPREME COURT OF THE UNITED STATES, in the cases of *Amalgamated Association of Street, Electric Railway and Motor Coach Employees of America, Division 998 (AFL) et al. v. Wisconsin Employment Relations Board and United Gas, Coke and Chemical Workers of America, (CIO), et al. v. Same*, ruled invalid the Wisconsin Public-Utility Anti-Strike Law banning strikes and substituting compulsory arbitration of labor disputes involving public-utility workers. (Source: Labor Relations Reporter, vol. 27, No. 33, Extra Edition Bulletin, Feb. 26, 1951, p. 12.)

THE SUPREME COURT OF THE UNITED STATES, in the case of *Universal Camera Corp. v. NLRB.*, ruled that the Administrative Procedure Act and the LMRA give Federal courts broadened power over NLRB decisions, the majority holding that "courts must now assume more responsibility for the reasonableness and fairness of Labor Board decisions than some courts have shown in the past"; and that decisions must be based "on the record considered as a whole." (Source: Labor Relations Reporter, vol. 27, No. 33, Extra Edition Bulletin, Feb. 26, 1951, p. 3.)

February 27

THE Office of Price Stabilization of the ESA issued Ceiling Price Regulation 7, providing retailers with a margin type price control for the following commodities: clothing, shoes, all household textile commodities, yard goods, and all furniture, rugs and lamps. Ceiling Price Regulations 2 through 6, issued previously, provided price controls, at different market levels, for cattlehides, kips, calfskins, coal, anthracite, iron and steel scrap, and fats and oils. (Source: Federal Register, vol. 16, No. 40, February 28, 1951, p. 1872; and ESA Ceiling Price Regulations 2 through 6, dated Jan. 25, 1951, Feb. 2, 1951, Feb. 2,

1951, Feb. 5, 1951, and Feb. 14, 1951, respectively; for discussion, see p. 409 of this issue.)

On March 1, the OPS issued Amendment 1 to Ceiling Price Regulation 1, effective March 2 (see Chron. item for Dec. 18, 1950, MLR Feb. 1951), increasing the ceiling prices for new automobiles by 3½ percent. (Source: Federal Register, vol. 16, No. 43, March 3, 1951, p. 2030.)

On March 3, the OPS issued Ceiling Price Regulation 8 fixing dollars-and-cents ceiling prices for raw American upland cotton. (Source: Federal Register, vol. 16, No. 44, Mar. 6, 1951, p. 2060.)

On March 7, the OPS issued Ceiling Price Regulation 9 establishing ceiling prices on all imported commodities sold in the territories and possessions based upon direct cost-plus the dollar-and-cents mark-up in effect December 19, 1950, to January 25, 1951. (Source: Federal Register, vol. 16, No. 47, Mar. 9, 1951, p. 2183.)

On March 8, the OPS issued Ceiling Price Regulation 10, effective March 12, 1951, establishing specific ceiling prices for manufacturers of household soaps and cleansers based on December 1950 levels. (Source: Federal Register, vol. 16, No. 48, March 10, 1951, p. 2226.)

March 1

FIFTEEN nonoperating railroad unions, representing approximately 1 million workers, signed an agreement with railroad carriers, effective February 1, providing a pay increase of 12½ cents an hour, a cost-of-living wage adjustment, and an annual improvement factor after July 1, 1952, if Government policy at that time permits such payments. (Source: New York Times, March 2, 1951.)

March 6

THE NLRB, in the case of *Richland Laundry & Dry Cleaners and Laundry Workers International Union, Local 197 (AFL)*, set aside a closed-shop agreement covering employees working on an atomic energy reservation. In taking jurisdiction, the Board ruled that its decision was based solely on the employer's "relationship to the national defense effort." (Source: NLRB Press release, R-359, March 12, 1951.)

March 10

THE SECRETARY OF LABOR amended General Order No. 48 (see Chron. item for Sept. 29, 1950, MLR Nov. 1950), by establishing the Defense Manpower Administration to replace the Office of Defense Manpower, and to be headed by an Administrator, with authority to direct, supervise, and coordinate all of the defense manpower activities of the Department of Labor. (Source: U. S. Dept. of Labor General Order No. 48, Amendment No. 1, March 10, 1951.)

Developments in Industrial Relations¹

LEADING DEVELOPMENTS during February and early March included the peaceful conclusion of a collective bargaining agreement by the Nation's railroads and 15 nonoperating railroad unions, a widespread strike in the woolen and worsted industry, and organized labor's withdrawal of its representatives from various Government defense agencies as an expression of its dissatisfaction with wage stabilization, price, and other defense mobilization policies.

Railroads

Approximately 1,000,000 nonoperating railroad employees (clerks, shop mechanics, truckmen, etc.) are covered by an agreement reached March 1 between representatives of the Nation's rail lines and 15 unions. The National Mediation Board and Presidential Assistant John R. Steelman were both active in the final negotiations.

Prominent provisions of the agreement include a wage increase of 12½ cents an hour, effective February 1, 1951, and a cost-of-living escalator clause.

The escalator clause provides for a wage change of 1 cent an hour for each 1-point change, quarterly, in the Bureau of Labor Statistics Consumers' Price Index. The escalator feature will not operate when the index drops below 178. The first adjustment will be made on April 1, 1951.

Under the terms of the agreement, no further wage changes may be sought by either party until October 1, 1953, except that representatives of the railroads and the unions will meet with the President, or his designee, on or after July 1, 1952, to consider further wage adjustments. Justification of any such increases, according to the agreement, will be related to the then existing wage-stabilization policies governing annual-improvement wage increases. If the parties fail

to reach agreement at these meetings, the issue is to be submitted to arbitration.

The agreement was the first negotiated wage settlement between the nonoperating unions and the railroads since 1937. Wage adjustments since that year have been determined by arbitration or by Presidential emergency boards.

The wage and rules disputes between the railroads and four major operating railroad unions—Brotherhood of Railroad Trainmen, Brotherhood of Locomotive Engineers, Order of Railway Conductors, and Brotherhood of Locomotive Firemen and Enginemen—remained unresolved during February and early March.

On February 8, the Army issued an order, authorized by President Truman, directing all striking railroad yard-service employees to return to their jobs by 4 p. m., February 10, under penalty of dismissal with consequent loss of their seniority rights, if they did not comply.² The order also provided an interim wage increase of 12½ cents an hour for yardmen and yardmasters and 5 cents an hour for road-service employees represented by the four major operating unions, effective October 1, 1950. After the employees had complied with the Army's order, representatives of the carriers and the unions resumed conferences under the auspices of the National Mediation Board.

The Federal District Court in Washington, D. C., on February 19, fined the Brotherhood of Railroad Trainmen \$75,000, after the union had entered a plea of guilty to contempt of court charges. The Government had charged that the strike by the union's yard members in late January and early February was in contempt of a court restraining order issued during a similar strike by union yard members in December. The union already had been fined \$25,000 by the Federal District Court in Chicago for its participation in the December strike.

On February 23, W. P. Kennedy, president of the Brotherhood of Railroad Trainmen, announced to leaders of the other major operating unions that pressure from his union's members required him to arrange for the best possible settlement as soon as practicable. Accordingly, representatives of the Brotherhood of Railroad Trainmen and the National Mediation Board began separate conferences the following day in an attempt to settle the dispute between the union and the carriers.

Textiles

About 70,000 workers, represented by the Textile Workers Union (CIO), struck on February 16 at more than 160 woolen and worsted mills. Most of the mills affected by the strike are located in the New England and Middle Atlantic States. Before the work stoppage occurred, the union had proposed a 2-year contract calling for a wage increase of 15 cents an hour, a cost-of-living escalator clause, an annual wage improvement factor of 6 cents an hour, and employer-financed pensions. The strike began after negotiations between the union and the American Woolen Co. had become deadlocked.

Contract negotiations affecting approximately 110,000 cotton textile workers, represented by the Textile Workers Union (CIO) in the Northeastern States, began on February 23. Existing contracts in this area were scheduled to expire on March 15. Union members were alerted for a possible strike, if an agreement on a new contract had not been reached by that date.

The union proposed an immediate wage increase of 12 percent, an automatic wage increase of 7 percent in each of the next 2 years, a cost-of-living escalator clause, and employer-financed pensions of at least \$100 a month.

Meat Packing

The United Packinghouse Workers (CIO) and the Amalgamated Meat Cutters and Butcher Workmen (AFL), on February 11, reached agreement with three major meat-packing companies—Swift, Armour, and Cudahy—on a wage increase of 9 cents an hour for about 100,000 packinghouse workers. The wage rise was negotiated under a reopening clause in existing contracts which expire in August 1952. It is subject to the limitations of wage stabilization regulations.

Both unions threatened strike action if the wage increase is not approved by wage stabilization authorities. In early March, a 3-man panel, appointed by the Wage Stabilization Board, met in Chicago to consider the parties' claims as to the permissibility of the wage adjustment under existing stabilization regulations.

Shipbuilding

The Industrial Union of Marine and Shipbuilding Workers (CIO) and the Bethlehem Steel Co., on February 19, reached agreement on wage increases ranging from 18½ cents an hour for laborers to 23 cents an hour for first-class mechanics, effective January 1, 1951. The agreement, which is subject to the limitations of wage stabilization regulations, was reached under wage-reopening provisions of an existing contract that expires December 31, 1951.

Labor Union Affairs

United Labor Policy Committee. On February 16, the United Labor Policy Committee—composed of leaders of the American Federation of Labor, the Congress of Industrial Organizations, and the Railway Labor Executives Association—rejected a wage formula which was proposed by the industry and public members of the Wage Stabilization Board. With the rejection of the formula, the ULPC instructed the labor members of the Board to submit their resignations to President Truman.

The wage regulation proposed by the public and industry members of the Board (Regulation No. 6) permitted a 10-percent increase in wages since January 15, 1950, subject to the approval of the Economic Stabilization Administrator. In contrast, labor members of the WSB had proposed a more liberal formula permitting wages to be increased by 12 percent in the period June 15, 1950, to December 15, 1950, and additional wage adjustments after that period conforming to rises in consumer's living costs.

The ULPC emphasized that its decision instructing the labor members of WSB to resign did not reflect merely a protest against the wage regulation proposed by the public and industry members of the Board. The committee explained that this action was taken also because they felt that labor had not been given appropriate representation at policy-making levels in the defense mobilization program and their views had been rejected by the Office of Defense Mobilization in deference to the recommendations of what it termed "big business."

On February 27, Economic Stabilization Administrator Eric A. Johnston approved the basic 10-percent pay increase regulation (No. 6) that was proposed by industry and public members of WSB. He recommended, however, that the Board liberalize provisions of the regulations pertaining to other economic benefits. He suggested that escalator clauses, annual wage improvement provisions in recognition of increased productivity, and health, welfare, and pension provisions contained in collective bargaining agreements in effect on January 25 be allowed to operate through June 30, 1951, even where they would exceed the 10-percent wage increase limitation. He also suggested that the liberalized regulation should provide for the correction of "hardships and inequities."

A meeting of the Wage Stabilization Board was held on February 28, but labor members did not participate. On that date, the United Labor Policy Committee met and decided "that all labor representatives of our respective organizations serving on existing defense mobilization agencies shall resign immediately."

The committee contended that "there is absolutely no desire on the part of Mobilization Director Charles E. Wilson to give labor a real voice in the formulation of defense policy." It also criticized the price, wage, and manpower policies pursued by the stabilization agencies under Mr. Wilson's guidance.

On March 1, the Economic Stabilization Administrator issued General Regulation No. 8 which modified existing wage control regulations. This regulation permitted cost-of-living wage increases under escalator clauses in contracts agreed to before January 25, 1951, even if these

increases, together with other wage increases, should exceed the 10-percent formula contained in the regulation issued on February 16.

Senate Labor Committee Reports. Reports were issued by the majority members of three subcommittees of the Senate Labor and Public Welfare Committee which have been investigating labor-management relationships in the Bell Telephone system and in the oil-tanker and Southern textile industries.

The telephone report described a deterioration of bargaining relations between the Communications Workers of America (CIO) and the closely integrated Bell system. The basic cause was the alleged practice of the parent company, American Telephone and Telegraph, of referring such "national" issues as wages and pensions to regional and departmental levels for collective bargaining. The report on the tanker industry charged the Cities Service Corporation Marine Division with unfair labor practices. These included labor espionage, delaying tactics in opposing the recognition of the Seafarer's International Union (AFL), company unionism, and discriminatory hiring.

The textile report found that self-organization and collective bargaining were steadily retrogressing in the Southern textile area, as a result of organized employer campaigns. Much of this, the report claimed, was in "shocking violation" of the Labor Management Relations Act of 1947.

A minority report issued subsequently stated that these findings were "neither objective nor . . . factual."

¹ Prepared in the Bureau's Division of Industrial Relations.

² See *Monthly Labor Review*, March 1951 (p. 310).

Publications of Labor Interest

EDITOR'S NOTE.—Correspondence regarding publications to which reference is made in this list should be addressed to the respective publishing agencies mentioned. Data on prices, if readily available, were shown with the title series.

Cooperative Movement

The ABC of Co-op Finance. By Leslie A. Woodcock. Chicago, Cooperative League of the USA, 1950. 35 pp. 25 cents.

Rural Health Cooperatives. By Helen L. Johnston. Washington, U. S. Department of Agriculture, Farm Credit Administration, and Federal Security Agency, Public Health Service, 1950. 93 pp., bibliography, illus. (FCA Bull. No. 60; PHS Bull. No. 308.) 30 cents, Superintendent of Documents, Washington.

Based chiefly on a study of 48 rural health cooperatives in the United States, this report describes their methods and purposes, areas where they are, how they started, membership, facilities, staff, problems, assets, and benefits, and characteristics of groups offering prepaid service. A final section appraises the cooperatives in terms of accomplishments and possibilities.

Buying and Selling by Cooperatives in Europe. By Glenn E. Riddell and John H. Heckman. Washington, U. S. Department of Agriculture, Office of Foreign Agricultural Relations, 1950. 73 pp., map, illus. (Foreign Agriculture Report No. 51.)

Results of two field studies made to determine the ability of cooperatives in western Europe to buy or sell products that cooperatives in the United States normally sell or buy in those countries, and the possibility of further trading transactions. Most of the material relates to farmers' marketing associations, but there is some information on the central organizations of the consumers' cooperative movement.

Helping People Help Themselves. By Wallace J. Campbell and Richard Y. Giles. Washington, Public Affairs Institute, 1950. 72 pp. (Bold New Program Series, No. 6.) 50 cents.

Deals with cooperatives under the Point Four program of technical aid to underdeveloped areas. The first part of the publication shows how cooperatives can be of assistance in carrying out the program, in terms of experience in various countries (India and Pakistan, Palestine,

Nova Scotia, Jamaica, Denmark). The second part deals with the adjustment of industry under the program, including use of the cooperative method.

Die Entwicklung der Konsumgenossenschaften von Ihrem Neuaufbau seit 1945 bis zum 31. Dezember 1948. Berlin, Konsum Hauptsekretariat, [1949?]. 160 pp.

Statistical data on development of consumers' cooperatives in the Soviet Zone of Germany from 1945 to the end of 1948, with explanatory text written from the peculiar point of view of a Communist-controlled organization.

Housing

The Housing Situation, 1950: An Analysis of Preliminary Results of the 1950 Housing Census. Washington, U. S. Housing and Home Finance Agency, Division of Housing Research, 1951. 30 pp., charts; processed.

The Relationship Between Slum Clearance and Urban Redevelopment and Low-Rent Public Housing. Washington, U. S. Housing and Home Finance Agency, Office of the Administrator, 1950. 15 pp.

The approach to these operations under the Housing Act of 1949 is described as one of greater flexibility within each separate field combined with coordination and mutual assistance.

A Summary of the Evolution of Housing Activities in the Federal Government. Washington, U. S. Housing and Home Finance Agency, Office of the Administrator, 1950. 24 pp. 10 cents, Superintendent of Documents, Washington.

Farm Housing in the United States and Recent Farm Housing Legislation. By Paul E. Grayson. (In Journal of Farm Economics, Menasha, Wis., November 1950, pp. 590-603. \$1.25.)

Housing and Redevelopment—A Portion of the Comprehensive Plan for the National Capital and its Environs. Washington, U. S. National Capital Park and Planning Commission, 1950. 40 pp., chart, maps. (Monograph No. 3.) 25 cents, Superintendent of Documents, Washington.

Facts About Housing Credit Controls: 1- Through 4-Family Residences; Multi-Unit Residences. Washington, U. S. Housing and Home Finance Agency, Office of the Administrator, 1951. 10 and 8 pp. 5 cents each, Superintendent of Documents, Washington.

Housing Policy and the Building Industry, [Great Britain]. (In Planning, P E P (Political and Economic Planning), London, November 20, 1950, pp. 81-100.)

Industrial Accidents; Workmen's Compensation

American Standard Safety Code for Ventilation and Operation of Open-Surface Tanks. New York, American Standards Association, Inc., 1951. 23 pp., diagrams. (Z9.1-1951.) 75 cents.

How You Can Work Safely. [Cleveland, Ohio], Gray Iron Founders' Society, Inc., [1951?]. 14 pp., illus.

Industrial and Safety Problems of Nuclear Technology.

Edited by Morris H. Shamos and Sidney G. Roth. New York, Harper & Brothers, 1950. xiii, 368 pp., bibliographies, diagrams, maps, illus. \$4.

Lectures and panel discussions at a 3-day conference held at New York University in January 1950. One of the four parts of the volume deals with hazards, safety measures, and insurance problems; the other parts cover activities of the U. S. Atomic Energy Commission, radiochemistry and isotopes, and the radiochemical laboratory.

Evaluation of Industrial Disability. New York, Oxford University Press, 1950. 89 pp., illus. \$4.

Manual of nontechnical instructions to industrial physicians for measuring the degree of injury to joints, prepared by committee of Industrial Accident Commission of California and California Medical Association for use in workmen's compensation cases.

Workmen's Compensation Payments, 1949. (In Social Security Bulletin, Federal Security Agency, Social Security Administration, Washington, December 1950, p. 18. 20 cents, Superintendent of Documents, Washington.)

Includes statistics (preliminary), by State, on compensation payments, source of insurance, and medical and hospitalization costs.

Workmen's Compensation in New Mexico. By Robert W. Thomas, Jr. Albuquerque, University of New Mexico, Department of Economics, 1950. 179 pp., bibliography; processed. \$2.

Examines operation of the State program, appraises the law, and makes recommendations. Subjects covered include coverage, benefits, medical care, attorney fees, unsafe working conditions, and insurability of coal miners. The State law, according to the analysis, covers principally extra-hazardous occupations, does not provide for a State insurance fund, and is court-administered.

Industrial Hygiene

Eyes and Industry. By Hedwig S. Kuhn, M.D., St. Louis, C. V. Mosby Co., 1950. 378 pp., bibliographies, charts, forms, illus. \$8.50.

Second edition of a book first published in 1944 under the title *Industrial Ophthalmology*. It offers a comprehensive program for effective utilization of vision in industry, by an ophthalmologist of wide industrial contacts. Selective placement in jobs according to vision requirements is considered basic in the program, together with pre-employment and follow-up testing of vision and a plant program for correcting defects. Among subjects discussed are eye hazards, injuries and plant treatment, eye protection, and illumination. A chapter is devoted to blind workers in industry.

Handbook for Photofluorographic Operators. Washington, Federal Security Agency, Public Health Service, 1950. 69 pp., diagrams, illus. (Publication No. 18.) 45 cents, Superintendent of Documents, Washington.

Answers the more common questions arising in the daily operation of photofluorographic machines used to take miniature X-ray chest films for tuberculosis detection. Briefly outlines the problems of radiation hazards and control, and precautions which the operator must take to protect himself and others.

Industrial Hygiene Survey, Coal Mine Industry, State of Washington. [Olympia?], State Department of Health, Industrial Hygiene Section, [1950?]. 43 pp., map, diagrams, illus. (I. H. Bull. No. 4.)

Cardiovascular Disease in the Steel Industry. By Lawrence T. Smyth, M.D. (In *Industrial Medicine and Surgery*, Chicago, January 1951, pp. 35-37. 75 cents.)

Investigation of Occupational Dermatoses in the Citrus Fruit Canning Industry. By Donald J. Birmingham, M.D., and others. (In *A. M. A. Archives of Industrial Hygiene and Occupational Medicine*, Chicago, January 1951, pp. 57-63. \$1.)

Q Fever Studies in Southern California. By R. J. Huebner, M.D., and J. A. Bell, M.D. *Observations on the Epidemiology of Q Fever in Northern California.* By E. H. Lennette, M.D., and W. H. Clark, M.D. (In *Journal of the American Medical Association*, Chicago, February 3, 1951, pp. 301-309, charts, bibliographical footnotes. 45 cents.)

Q fever is an occupational hazard to workers handling infected livestock or its products. Well over a third of a group of 300 infected persons worked in livestock industries.

Industrial Relations

Analysis of Strikes, 1927-49. Washington, U. S. Department of Labor, Bureau of Labor Statistics, 1951. 7 pp., charts. (Serial No. R. 2017; reprinted from *Monthly Labor Review*, January 1951.) Free.

Labor-Management Relations in the Cement Industry. Washington, U. S. Department of Labor, Bureau of Labor Statistics, 1951. 5 pp., charts. (Serial No. R. 2016; reprinted from *Monthly Labor Review*, January 1951.) Free.

The Economic Impact of Collective Bargaining in the Steel and Coal Industries During the Post-War Period. By Albert Rees. Chicago, University of Chicago, Industrial Relations Center, [1950?]. 15 pp.; processed.

On the basis of a study of trends of wages, costs, and prices, the author concludes that collective bargaining has not been an inflationary force but has "merely reflected fundamental inflationary trends generated elsewhere in the economy." The new types of collective agreements with elastic provisions such as escalator clauses are also viewed as essentially noninflationary. Inflation is caused by "more fundamental economic forces." If we again fail to get at the real causes of inflation, "it will not be the fault of collective bargaining."

Employer's Obligation to Produce Data for Collective Bargaining. By Herbert L. Sherman, Jr. (In *Minne-*

sota Law Review, Minneapolis, December 1950, pp. 24-46. \$1.)

Providing Facts and Figures for Collective Bargaining—The Controller's Role. By Earl Brooks, N. Arnold Tolles, Richard F. Dean. New York, Controllershship Foundation, Inc., [1950]. 86 pp. \$5.

"Featherbedding"—*A List of References.* Washington, Association of American Railroads, Bureau of Railway Economics, Library, July 31, 1950. 16 pp.; processed.

Collective Agreements in the Tobacco Industry, [Canada]. (In *Labor Gazette*, Department of Labor, Ottawa, February 1951, pp. 168, 169; *Collective Agreement Studies*, No. 14.)

A Works Council in Action: An Account of the Scheme in Operation at Bournville Works. Bournville, England, Cadbury Brothers, Ltd., 1950. 48 pp., charts, illus. 1s.

Recht und Gerechtigkeit in der Mitbestimmung—Ein Evangelischer Ratschlag. By Eberhard Müller. Stuttgart, Deutsche Verlags-Anstalt, 1950. 82 pp. (Der *Deutschenspiegel*, Band 36/37.)

Labor participation in management—termed *Mitbestimmung* in German—is discussed in the light of Protestant theology and ethics, and proposals are submitted for settling the issue in West Germany.

Industry Reports—General

[*Reports Prepared for Building, Civil Engineering, and Public Works Committee, International Labor Organization, Third Session, Geneva, 1951*]: I, *General Report*; II, *Welfare in the Construction Industry*; III, *Seasonal Unemployment in the Construction Industry.* Geneva, International Labor Office, 1950 and 1951. 88, 39, 97 pp., respectively. Reports I and III, 50 cents; Report II, 25 cents. Distributed in United States by Washington Branch of ILO.

The Joint Maritime Commission and the Maritime Work of the I. L. O. (In *International Labor Review*, Geneva, November 1950, pp. 337-363. 50 cents. Distributed in United States by Washington Branch of ILO.)

Labor Conditions in the Japanese Cotton Spinning Industry. [Osaka?], All Japan Cotton Spinners' Association, 1950. 21 pp.

A separate report on cotton industry wages was also published by the Association in the latter part of 1950.

Labor Conditions in the Japanese Raw Silk Reeling Industry. [Tokyo?], Japan Raw Silk Reelers' Association, 1950. 17 pp.

Report on Labor Situation in Japan Covering Synthetic Fibers, Woolen Spinning, and Hard and Bast Fibers. [Tokyo?], Japan Chemical Textile Association, 1950. 20 pp.

Labor Organizations

The U. S. Labor Movement. (In *Fortune*, New York, February 1951, pp. 91-93, 161, et seq., illus. \$1.25.)

Directory of Labor Organizations in New York State. New York, State Department of Labor, Division of Research and Statistics, 1950. 122 pp. (Special Bull. No. 228.) 50 cents.

Stores and Unions: A Study of the Growth of Unionism in Dry Goods and Department Stores. By George G. Kirstein. New York, Fairchild Publications, Inc., 1950. 246 pp., bibliographical footnotes, illus. \$7.

The author traces the history of trade-unions in retail trades; reports, with emphasis on cause and effect, on major strikes in the industry; and analyzes the attitudes toward unions that may be expected on the part of management and employees.

One chapter treats in detail the place of employer associations in collective bargaining in the retail trades. Bargaining by employer associations, although not unique in this industry, plays a more important role than in most industries.

The final chapter deals with the impact of unionism on stores, and illustrates by relevant labor-management contract clauses the methods adopted to deal with some of the more important problems arising between management and union employees.

Report [of] Third International Trade Union Conference of the E.R.P. [European Recovery Program], Rome, April 17-20, 1950. Paris, Trade Union Advisory Committee—E.R.P., 1950. 112 pp., illus.

Thirty-Ninth Annual Report on Labor Organization in Canada (for the Calendar Year 1949). Ottawa, Department of Labor, 1951. 95 pp., chart. 25 cents.

Organized Labor in Guatemala, 1944-1949: A Case Study of an Adolescent Labor Movement in an Underdeveloped Country. By Archer C. Bush. Hamilton, N. Y., Colgate University, 1950. Various pages, bibliography; processed. (Area Studies, Latin American Seminar Reports, No. 2.) \$2.50.

Soviet Trade Unions—Their Place in Soviet Labor Policy. By Isaac Deutscher. London and New York, Royal Institute of International Affairs, 1950. 156 pp. 7s. 6d. net. \$1.75.

Short historical treatment of Soviet trade-unions, describing their struggle to influence labor policy and their final complete subjection to state control. Describes the various measures taken by the Soviet Government to promote productivity in the face of the workers' discontent with living and working conditions.

Manpower

Fact Book on Manpower. Washington, U. S. Department of Labor, Bureau of Labor Statistics, 1951. Various pages, maps, charts; processed. Free.

Selected statistics on population and labor force of the United States, industrial and occupational distribution of the labor force, potential manpower resources, and other pertinent subjects.

Manpower Planning for the Emergency. Washington, Bureau of National Affairs, Inc., 1951. 25 pp. (Personnel Policies Forum Survey No. 1.) \$1.

Manpower Utilization: Selected References on Manpower Problems, with Notes. Ithaca, N. Y., Cornell University, New York State School of Industrial and Labor Relations, December 1950. 17 pp.; processed.

Maximum Utilization of Employed Manpower—A Check List of Company Practice. Princeton, N. J., Princeton University, Industrial Relations Section, 1951. 52 pp., bibliography. (Research Report Series, No. 83; revision of Research Report No. 68.) \$1.

Manpower Problems, Vocational Training, and Employment Service, [Near and Middle East]. Geneva, International Labor Office, 1951. 46 pp. 25 cents. Distributed in United States by Washington Branch of ILO.

Report I prepared for ILO Regional Conference for the Near and Middle East, Teheran, April 1951.

Medical Care and Sickness Insurance

Economic Aspects of Hospital Care. By Herbert E. Klarman. (In *Journal of Business of the University of Chicago*, January 1951, pp. 1-24. \$1.75.)

Medical Care for Americans. Edited by Franz Goldmann, M.D., and Hugh R. Leavell, M.D. (In *Annals of the American Academy of Political and Social Science*, Vol. 273, Philadelphia, January 1951, pp. 1-200. Paper, \$2 to nonmembers, \$1 to members of Academy.)

Symposium of articles dealing with fundamental phases and considerations for effective programming of medical care in the United States. Under medical-care insurance are discussed: (1) Trends in voluntary plans; (2) movements for compulsory health insurance, 1910-50; (3) experience and position of organized labor as to problems of medical care; and social security aspects. Other sections deal with prerequisites for effective organization of medical care; organizational methods; special groups served by public medical care; and specialized or special-need programs, in which are included the worker in industry, the rural population, and minority groups.

Temporary Disability Benefits. By Morris Sackman. (In *American Federationist*, Washington, December 1950, pp. 23-26. 20 cents.)

Comparison of salient administrative provisions of sickness-insurance laws of Rhode Island, California, New Jersey, and New York.

United States Civil Defense: Health Services and Special Weapons Defense. Washington, Federal Civil Defense Administration, 1950. 260 pp., bibliography, charts, forms. (Pub. AG-11-1.) 60 cents, Superintendent of Documents, Washington.

Outlines functional responsibilities and presents a pro-

gram for civil-defense health services in case of atomic, biological, or chemical attack. A special program for industrial health services is also outlined. Various specific hazards are discussed.

Migration and Migrants

American Immigration Policy—A Reappraisal. Edited by William S. Bernard and others. New York, Harper & Brothers, 1950. xx, 341 pp., bibliography, charts. \$4.

American immigration policy is described in its historical setting, and its operation and effects are analyzed. A more liberal policy is urged, particularly to give greater flexibility to the quota system, to make use of occupational criteria as an auxiliary method of selecting immigrants, and to grant quotas to peoples now excluded. An immigration commission is proposed for the study of "a democratic alternative to the national origins and quota system."

The Puerto Rican Journey: New York's Newest Migrants. By C. Wright Mills, Clarence Senior, Rose Kohn Goldsen. New York, Harper & Brothers, 1950. 238 pp. (Publication of Bureau of Applied Social Research, Columbia University.) \$3.

A study of Puerto Rican migration to New York City and of the migrants in their new environment. The account is based upon a study begun in September 1947, described by the authors as having nine major phases, including a detailed questionnaire procedure for obtaining sample household data by interviews.

Productivity

Productivity in the Beet Sugar Industry, 1939-49. Washington, U. S. Department of Labor, Bureau of Labor Statistics, 1951. 7 pp.; processed. Free.

Another recent report in this series for 1939-49 covers clay construction products.

Man-Hours Expended per Car, Railroad Freight Cars, 1939-48. Washington, U. S. Department of Labor, Bureau of Labor Statistics, 1950. 23 pp., charts; processed. Free.

Trends in Man-Hours Expended per Unit, Selected Types of Machine Tools, 1948-49. Washington, U. S. Department of Labor, Bureau of Labor Statistics, 1951. 19 pp., charts; processed. Free.

Social Security

Social Security Act Amendments of 1950: A Summary and Legislative History. By Wilbur J. Cohen and Robert J. Myers. (In *Social Security Bulletin*, Federal Security Agency, Social Security Administration, Washington, October 1950, pp. 3-14, chart. 20 cents, Superintendent of Documents, Washington.)

Changing Trends Under Old-Age and Survivors Insurance, 1935-1950. By Jacob Perlman. (In *Industrial and Labor Relations Review*, Ithaca, N. Y., January 1951, pp. 173-186; also reprinted.)

Old-Age and Survivors Insurance: Coverage Under the 1950 Amendments. By George J. Leibowitz. *Aid to the Permanently and Totally Disabled.* By Phyllis Hill. (In Social Security Bulletin, Federal Security Agency, Social Security Administration, Washington, December 1950, pp. 3-10, 21; 11-15. 20 cents, Superintendent of Documents, Washington.)

The two articles listed immediately above analyze and clarify significant changes made in two major programs by the 1950 revision of the Federal Social Security Act.

The Social Welfare Forum, 1950: Official Proceedings, 77th Annual Meeting, National Conference of Social Work, Atlantic City, N. J., April 23-28, 1950. New York, Columbia University Press (for National Conference of Social Work), 1950. xvii, 344 pp. \$4.75.

Includes papers on The Economic Situation and its Effects on Social Welfare Services, Implications of an Expanded Social Insurance Program, and The Quest for Economic Security—Whose Responsibility? The latter article presents points of view of management and labor, and on the Government's role.

Institut d'Assurances Sociales d'Haïti—Guide Pratique. [Port-au-Prince], Département du Travail, 1950. 29 pp., illus.

First Report of the Department of Social Welfare, [Republic of Ireland]. Dublin, 1950. 228 pp. and inserts, illus. 5s.

In addition to a report on the department's activities from 1947 to 1949, the volume contains outlines of the historical background and development of the social welfare schemes administered by the department, accompanied by statistics and relevant legislation.

Social Insurance in Rumania. By Frantisek Cerny. (In Bulletin of the International Social Security Association, Geneva, August-September 1950, pp. 1-10.)

Social Security, [Near and Middle East]. Geneva, International Labor Office, 1950. 69 pp. 50 cents. Distributed in United States by Washington Branch of ILO.

Report III prepared for ILO Regional Conference for the Near and Middle East, Teheran, April 1951.

Wages and Hours of Labor

Wage Trends, 1939-1949. Washington, U. S. Department of Labor, Bureau of Labor Statistics, [1951]. 9 pp., chart; processed. (Wage Movements Series, No. 3.) Free.

Wage Chronology No. 11: Aluminum Co. of America, 1939-50. Washington, U. S. Department of Labor, Bureau of Labor Statistics, 1951. 5 pp. (Serial No. R. 2015; reprinted from Monthly Labor Review, December 1950.) Free.

Fertilizer, 1949 and 1950. Washington, U. S. Department of Labor, Bureau of Labor Statistics, 1951. 35 pp., charts. (Wage Structure Series 2, No. 77.) Free.

Department and Women's Ready-to-Wear Stores, 1950. Washington, U. S. Department of Labor, Bureau of Labor Statistics, 1951. 51 pp. (Wage Structure Series 2, No. 78.) Free.

A Survey of Connecticut Laundry Occupations—Wages, Hours and Conditions of Employment, December 1949. Hartford, Department of Labor, Bureau of Labor Statistics, [1950?]. 31 pp.; processed.

A similar report is available for cleaning and dyeing occupations in Connecticut.

The Changing Status of Teachers under the New York State Salary Law, 1947 to 1950. By Dwight E. Beecher. Albany, University of the State of New York, 1950. 39 pp., charts. (Bull. No. 1390.)

Oregon Teachers and Administrators Salaries for 1950-51. Portland, Oregon Education Association, 1951. 15 pp.; processed. (O. E. A. Research Bull., Vol. X, No. 2.)

Employment, Hours Worked, Wages, 1940-1949 . . . in the Printing Industry of Montreal and District. Montreal, Printing Industry Parity Committee, 1950. 46 pp., charts. (Serial No. PE-11.)

Premium Pay Practices in Private Industry. Washington, U. S. Department of Labor, Bureau of Labor Statistics, 1951. 54 pp., bibliography; processed. Free.

Covers premium pay for overtime and night work and for work on Sundays and holidays.

Wage Control. By William H. Chartener. Washington (1205 19th Street NW.), Editorial Research Reports, 1950. 17 pp. (Vol. II, 1950, No. 22.) \$1.

Digest of relevant provisions of Defense Production Act and of wage-control experience in World War II, with discussion of effects of wage control on the economy.

Miscellaneous

Readings in Labor Economics and Industrial Relations. Edited by Joseph Shister. Philadelphia, J. B. Lippincott Co., 1951. 661 pp. \$4.75.

A wide range of selections from writings of specialists, for use primarily in college courses. Most of the volume is devoted to unions and collective bargaining, but several papers deal with employment and unemployment, income, and social security.

Industrial Sociology: An Introduction to the Sociology of Work Relations. By Delbert C. Miller and William H. Form. New York, Harper & Brothers, 1951. 896 pp., bibliographies, charts. \$6.

The term "industrial" is given its broader meaning; the study is not limited to factories. A background section describes and criticizes the major contributions to the subject, notably the work of the Elton Mayo group. The second part of the book, on the social organization of the work plant, gives attention to the "informal organization of labor" as well as to formal organizations of management and workers. The third section discusses placement of workers and relation of teamwork to industrial morale. Part four is concerned with the social

adjustment of workers from preparation for a job to retirement. The volume concludes with a consideration of industry in some of its larger community and social aspects.

Introduction to the Total Theory of Labor—New Positive Foundation of Economics. By Alexander Kokkalis. Concord, N. H. (P. O. Box 175), the Author, 1950. 232 pp.

The Social Costs of Private Enterprise. By K. William Kapp. Cambridge, Mass., Harvard University Press, 1950. 287 pp. \$4.50.

The author states that many important costs of production are not included in the accounting systems or entrepreneurial costs of business enterprises. His study is a general and as far as possible quantitative analysis of these costs. Among them are the costs of industrial injuries, occupational diseases, air pollution, water pollution, premature depletion of various resources, and unemployment. These and various other costs are described as social costs borne by the community. The author argues that failure to take account of these costs in accounting systems invalidates traditional value and price analysis. He suggests the need for a fundamental revision of both economic theory and public policy to take account of these social costs.

Handbook of Human Engineering Data for Design Engineers. Medford, Mass., Tufts College, Institute for Applied Experimental Psychology, 1949. Various pages, bibliographies, charts. \$5.

Deals with quantitative measurements of human capabilities and limitations and their application to machine design. Among fields considered are vision, hearing, motor responses, physiological conditions as determinants of efficiency, and aptitude testing.

Radiation Monitoring in Atomic Defense. By Dwight E. Gray and John H. Martens. New York, D. Van Nostrand Co., Inc., 1951. 122 pp., bibliography, diagrams, illus. \$2.

Popular manual for laymen as well as for persons

concerned with measurement of atomic radiation, including those engaged in health protection in industrial establishments using radioisotopes. Gives details on use of standard detection instruments.

Sourcebook on Atomic Energy. By Samuel Glasstone. New York, D. Van Nostrand Co., Inc., 1950. 546 pp., diagrams, illus. \$2.90.

Compendium on development and scientific aspects of atomic energy, prepared under the auspices of the U. S. Atomic Energy Commission. Contains a chapter on radiation hazards and protective measures.

Economic Development in Latin America: An Introduction to the Economic Problems of Latin America. By Simon G. Hanson. Washington, Inter-American Affairs Press, 1951. 531 pp., bibliographies, maps, chart. \$7.

Includes a chapter on labor and social legislation and labor organization.

Rural Cuba. By Lowry Nelson. Minneapolis, University of Minnesota Press, 1950. 285 pp., bibliography, charts. \$3.50.

Based on a year's study, in 1945-46, by the author as a rural sociologist in the U. S. Department of State. Social stratification, level of living, education, and farming systems are among the chapter subjects.

Incentives and Management in British Industry. By R. P. Lynton. London, Routledge & Kegan Paul, Ltd., 1949. 212 pp., bibliography. 15s. net.

Considers the need for new approaches to the question of individual worker efficiency, and analyzes the efficacy of various types of incentives. The book is based in part on the writer's experience as a machine operator and in part on a broad study of literature and of management experience in British industry.

The author is critical of uniform standards set by legislation or by industry-wide labor-management agreements, as interfering with managerial initiative in stimulating productivity. He urges managements to be more resourceful and experimental in exercising the wide latitude remaining to them.

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A: Employment and Payrolls

TABLE A-1: Estimated Total Labor Force Classified by Employment Status, Hours Worked, and Sex

Labor force	Estimated number of persons 14 years of age and over ¹ (in thousands)												
	1951		1950										
	Feb.	Jan.	Dec.	Nov. ²	Oct.	Sept. ²	Aug.	July ²	June	May	Apr.	Mar.	Feb.
	Total, both sexes												
Total labor force ³	(4)	(4)	64,674	65,453	65,438	65,020	66,204	65,742	66,177	64,108	63,513	63,021	63,003
Civilian labor force.....	61,313	61,514	62,538	63,512	63,704	63,567	64,867	64,427	64,866	62,788	62,183	61,675	61,637
Unemployment.....	2,407	2,503	2,229	2,240	1,940	2,341	2,500	3,213	3,384	3,067	3,515	4,123	4,684
Unemployed 4 weeks or less.....	1,039	1,184	1,153	1,240	955	1,107	1,051	1,514	1,629	1,130	1,130	1,229	1,583
Unemployed 5-10 weeks.....	640	677	498	475	420	464	679	754	664	634	686	1,143	1,456
Unemployed 11-14 weeks.....	276	208	167	147	128	201	221	249	181	252	521	580	547
Unemployed 15-26 weeks.....	241	251	217	175	183	272	266	334	474	559	705	722	650
Unemployed over 26 weeks.....	213	183	194	204	257	299	285	361	439	481	475	449	448
Employment.....	58,905	59,010	60,308	61,271	61,764	61,226	62,367	61,214	61,482	59,731	58,668	57,551	56,953
Nonagricultural.....	52,976	52,993	54,075	53,721	53,273	53,415	54,207	52,774	52,436	51,669	51,473	50,877	50,730
Worked 35 hours or more.....	42,911	43,505	44,177	43,546	42,720	28,042	43,835	25,072	43,117	43,033	41,143	41,334	41,433
Worked 15-34 hours.....	5,806	5,561	6,002	6,417	7,023	20,827	4,583	19,201	5,153	5,149	6,542	5,715	5,271
Worked 1-14 hours ⁵	2,236	2,251	2,319	2,331	1,999	1,984	1,545	1,650	1,843	1,949	2,183	2,102	2,085
With a job but not at work ⁶	2,022	1,676	1,577	1,427	1,531	2,561	4,246	6,852	2,323	1,537	1,507	1,725	1,941
Agricultural.....	5,930	6,018	6,234	7,551	8,491	7,811	8,160	8,440	9,046	8,062	7,195	6,675	6,223
Worked 35 hours or more.....	3,790	3,895	3,983	5,487	6,547	5,259	6,170	6,348	6,975	5,970	5,125	4,551	4,334
Worked 15-34 hours.....	1,415	1,467	1,505	1,594	1,611	2,028	1,475	1,695	1,739	1,613	1,503	1,575	1,271
Worked 1-14 hours ⁵	370	308	348	306	245	356	295	238	246	292	313	255	300
With a job but not at work ⁶	353	348	399	163	88	170	223	158	88	187	250	295	317
	Males												
Total labor force ³	(4)	(4)	45,644	45,934	45,978	46,155	47,132	47,000	46,718	45,614	45,429	45,204	45,115
Civilian labor force.....	42,894	43,093	43,535	44,019	44,268	44,726	45,818	45,708	45,429	44,316	44,120	43,879	43,769
Unemployment.....	1,594	1,659	1,459	1,309	1,172	1,482	1,664	2,126	2,200	2,130	2,628	3,002	3,426
Employment.....	41,300	41,433	42,076	42,710	43,096	43,244	44,154	43,582	43,229	42,186	41,492	40,877	40,343
Nonagricultural.....	35,980	36,072	36,585	36,554	36,507	36,877	37,455	36,605	36,216	35,597	35,220	34,890	34,698
Worked 35 hours or more.....	30,284	31,054	31,308	31,175	30,826	21,103	31,800	18,905	31,523	30,860	29,722	29,562	29,336
Worked 15-34 hours.....	3,355	2,947	3,217	3,447	3,823	13,273	2,508	12,762	2,005	2,829	3,453	3,156	2,909
Worked 1-14 hours ⁵	984	961	998	980	800	817	654	732	756	874	999	958	922
With a job but not at work ⁶	1,357	1,110	1,062	952	1,058	1,683	2,494	4,207	1,332	1,034	1,017	1,214	1,631
Agricultural.....	5,320	5,362	5,491	6,156	6,889	6,367	6,699	6,977	7,013	6,589	6,272	5,987	5,645
Worked 35 hours or more.....	3,644	3,724	3,751	4,982	5,605	4,875	5,573	5,789	6,031	5,339	4,891	4,380	4,176
Worked 15-34 hours.....	1,077	1,066	1,134	842	756	1,131	764	899	743	895	925	1,146	942
Worked 1-14 hours ⁵	300	253	268	200	146	219	181	162	162	186	251	188	228
With a job but not at work ⁶	298	319	338	133	82	143	183	126	78	170	205	274	298
	Females												
Total labor force ³	(4)	(4)	19,030	19,519	19,460	18,865	19,072	18,742	19,459	18,494	18,084	17,817	17,888
Civilian labor force.....	18,419	18,421	19,003	19,493	19,436	18,841	19,049	18,719	19,437	18,472	18,063	17,796	17,868
Unemployment.....	813	844	770	931	768	859	836	1,087	1,184	927	887	1,121	1,258
Employment.....	17,605	17,577	18,232	18,561	18,668	17,982	18,213	17,632	18,253	17,545	17,176	16,674	16,610
Nonagricultural.....	16,996	16,921	17,490	17,167	16,766	16,538	16,752	16,169	16,220	16,072	16,253	15,987	16,032
Worked 35 hours or more.....	12,627	12,451	12,869	12,371	11,894	6,939	12,035	6,167	11,594	12,173	11,421	11,772	12,097
Worked 15-34 hours.....	2,451	2,614	2,785	2,970	3,200	7,554	2,075	6,439	2,548	2,320	3,069	2,559	2,362
Worked 1-14 hours ⁵	1,252	1,290	1,321	1,351	1,199	1,167	891	918	1,087	1,075	1,184	1,144	1,163
With a job but not at work ⁶	665	566	515	475	473	878	1,752	2,645	991	503	580	511	410
Agricultural.....	610	656	743	1,395	1,902	1,444	1,461	1,463	2,033	1,473	923	688	578
Worked 35 hours or more.....	146	171	232	505	942	384	597	559	944	631	234	171	158
Worked 15-34 hours.....	338	401	371	752	855	897	711	796	996	718	578	429	329
Worked 1-14 hours ⁵	70	55	80	106	99	137	114	76	84	106	67	67	72
With a job but not at work ⁶	55	29	61	30	6	27	40	32	10	17	45	21	19

¹ Estimates are subject to sampling variation which may be large in cases where the quantities shown are relatively small. Therefore, the smaller estimates should be used with caution. All data exclude persons in institutions. Because of rounding, the individual figures do not necessarily add to group totals.

² Census survey week contains legal holiday.

³ Total labor force consists of the civilian labor force and the Armed Forces.

⁴ Beginning with January 1951, data on net strength of the Armed Forces and total labor force are not available.

⁵ Excludes persons engaged only in incidental unpaid family work (less than 15 hours); these persons are classified as not in the labor force.

⁶ Includes persons who had a job or business, but who did not work during the census week because of illness, bad weather, vacation, labor dispute or because of temporary lay-off with definite instructions to return to work within 30 days of lay-off. Does not include unpaid family workers.

Source: U. S. Department of Commerce, Bureau of the Census.

TABLE A-2: Employees in Nonagricultural Establishments, by Industry Division and Group ¹

[In thousands]

Industry group and industry	1951		1950										Annual average		
	Feb.	Jan.	Dec.	Nov.	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	Feb.	1949	1948
Total employees.....	45,294	45,254	46,601	45,873	45,898	45,684	45,080	44,096	43,945	43,311	42,926	42,295	41,661	43,006	44,201
Mining	929	933	938	938	939	946	950	922	946	940	939	938	935	932	981
Metal.....	104.0	103.9	103.7	102.5	101.5	103.0	102.5	103.3	101.8	99.9	98.5	98.4	97.9	100.1	105.1
Iron.....		35.7	35.9	36.1	36.6	37.2	37.0	36.6	36.1	35.4	33.8	33.9	33.6	33.7	36.6
Copper.....		28.8	28.7	28.4	28.1	28.1	28.2	28.4	28.0	27.9	28.0	27.8	27.7	27.3	27.8
Lead and zinc.....		21.0	20.8	20.3	19.9	20.5	20.0	20.5	20.0	19.2	19.1	19.0	18.8	20.6	21.7
Anthracite.....		73.3	73.2	74.3	74.4	75.0	75.3	73.6	75.3	76.1	75.3	76.9	75.9	77.3	80.0
Bituminous-coal.....	398.0	402.1	405.0	404.3	405.8	407.0	407.8	382.1	410.4	413.1	419.0	422.9	82.6	399.0	438.2
Crude petroleum and natural gas production.....		256.4	256.8	254.8	255.5	258.6	261.2	261.9	258.9	253.9	251.4	249.2	249.8	259.0	257.5
Nonmetallic mining and quarrying.....	97.0	97.0	98.9	101.9	102.1	102.7	103.4	101.3	100.0	97.3	94.5	90.2	88.6	96.4	100.1
Contract construction	2,195	2,278	2,393	2,571	2,631	2,626	2,629	2,532	2,414	2,245	2,076	1,907	1,881	2,156	2,165
Nonbuilding construction.....		382	428	505	534	540	548	519	493	442	389	328	312	428	416
Highway and street.....		139.8	164.9	208.6	228.5	234.3	240.0	228.8	213.5	182.4	150.2	118.3	110.4	178.1	172.1
Other nonbuilding construction.....		242.3	262.6	296.3	305.8	305.8	307.5	290.4	279.3	260.0	238.4	210.0	201.9	250.3	243.8
Building construction.....	1,896	1,965	2,066	2,097	2,086	2,081	2,013	1,921	1,803	1,687	1,579	1,549	1,727	1,749	
General contractors.....		805	838	892	905	906	905	870	827	766	702	651	641	753	797
Special-trade contractors.....		1,091	1,127	1,174	1,192	1,180	1,176	1,143	1,094	1,037	985	928	908	974	952
Plumbing and heating.....		285.8	289.7	294.0	296.6	293.7	285.7	278.7	267.4	257.1	249.3	242.6	241.7	245.8	239.7
Painting and decorating.....		124.3	133.4	144.1	158.1	157.2	158.3	149.8	140.0	126.7	117.1	104.5	100.6	124.4	125.2
Electrical work.....		137.7	139.6	138.7	137.6	135.8	133.7	131.0	127.6	122.0	120.2	118.6	118.0	125.1	124.3
Other special-trade contractors.....		542.9	563.9	593.9	600.1	593.0	597.9	583.5	558.6	530.8	498.7	461.9	447.2	479.0	463.1
Manufacturing	15,904	15,768	15,785	15,765	15,827	15,685	15,450	14,777	14,666	14,413	14,162	14,103	13,997	14,146	15,286
Durable goods ²	8,836	8,734	8,716	8,664	8,618	8,423	8,294	7,978	7,964	7,809	7,548	7,418	7,324	7,465	8,315
Nondurable goods ³	7,068	7,034	7,069	7,101	7,209	7,262	7,156	6,799	6,702	6,604	6,614	6,685	6,673	6,681	6,970
Ordnance and accessories.....	31.6	30.5	29.5	29.0	27.7	26.6	25.0	23.7	23.7	23.2	22.8	22.4	21.8	24.8	28.1
Food and kindred products	1,468	1,494	1,534	1,576	1,643	1,739	1,718	1,617	1,519	1,461	1,432	1,420	1,409	1,523	1,536
Meat products.....		311.2	314.4	305.7	300.8	295.7	296.6	292.6	292.6	286.3	282.7	285.3	288.7	288.6	271.2
Dairy products.....		134.1	136.1	139.6	142.8	149.6	156.4	158.7	156.5	148.7	141.4	136.6	134.1	146.2	147.7
Canning and preserving.....		155.4	167.5	197.4	253.2	353.1	329.1	250.4	177.0	152.3	144.9	133.9	133.6	207.1	222.0
Grain-mill products.....		127.0	124.9	125.2	128.4	129.4	128.6	125.9	124.3	121.2	120.2	120.1	119.3	120.6	117.7
Bakery products.....		287.5	289.5	290.9	292.2	290.4	287.7	289.3	283.7	286.7	284.6	282.4	277.9	281.7	282.9
Sugar.....		30.8	45.0	51.8	50.7	34.5	33.5	30.6	29.4	28.9	27.0	27.1	26.9	32.7	34.5
Confectionery and related products.....		99.6	105.6	110.2	114.2	110.5	102.1	90.0	90.4	88.6	90.6	94.5	96.9	96.9	100.2
Beverages.....		212.0	212.5	215.4	217.7	230.0	240.1	234.2	224.8	212.8	206.0	205.1	198.2	211.4	218.6
Miscellaneous food products.....		136.3	138.0	139.8	142.7	145.4	144.3	141.8	140.4	135.5	134.1	135.3	133.2	137.6	141.3
Tobacco manufactures	86	88	90	91	96	96	89	82	82	83	83	85	88	94	100
Cigarettes.....		25.8	26.1	26.3	26.2	27.1	25.6	26.1	25.4	25.5	25.5	25.4	25.5	26.6	26.6
Cigars.....		41.2	42.2	43.3	43.0	41.7	40.7	38.9	39.5	39.7	39.3	40.9	42.3	46.4	48.3
Tobacco and snuff.....		12.0	12.0	12.1	12.4	12.5	12.1	11.8	12.0	12.1	12.4	12.6	12.7	13.0	13.7
Other tobacco stemming and redrying.....		8.5	9.4	9.3	14.0	15.2	11.4	5.4	6.1	5.7	5.5	5.9	7.4	10.1	11.2
Textile-mill products	1,358	1,351	1,350	1,355	1,357	1,347	1,316	1,250	1,264	1,252	1,261	1,272	1,273	1,224	1,362
Yarn and thread mills.....		172.3	170.7	171.5	171.3	169.5	164.4	156.7	156.4	153.3	154.7	158.5	159.4	149.3	177.6
Broad-woven fabric mills.....		632.3	632.9	637.5	638.7	637.4	625.9	601.5	610.4	602.9	602.8	604.2	600.6	581.9	645.7
Knitting mills.....		251.9	254.1	253.9	256.0	253.0	246.9	228.4	230.9	231.6	236.1	239.8	241.1	231.4	249.0
Dyeing and finishing textiles.....		93.5	93.1	93.3	93.6	92.6	89.2	84.9	86.4	86.4	88.3	89.5	89.9	86.4	89.8
Carpets, rugs, other floor coverings.....		62.3	62.5	62.4	61.7	61.3	60.5	58.1	59.8	59.8	60.9	60.5	60.3	58.9	64.8
Other textile-mill products.....		138.6	137.1	136.7	135.5	133.2	129.2	120.3	119.8	117.9	117.8	119.6	121.2	116.0	135.2
Apparel and other finished textile products	1,227	1,190	1,182	1,175	1,221	1,218	1,208	1,097	1,093	1,091	1,119	1,174	1,180	1,136	1,162
Men's and boys' suits and coats.....		151.8	151.1	151.2	152.4	151.4	152.4	140.6	148.5	143.2	146.0	149.2	148.9	141.5	154.4
Men's and boys' furnishings and work clothing.....		268.2	269.1	271.8	273.3	272.3	270.4	249.3	255.1	256.0	258.6	262.2	260.8	257.8	269.1
Women's outerwear.....		336.8	328.4	308.4	331.9	340.0	340.3	299.1	281.3	285.2	305.2	338.9	348.2	328.6	342.4
Women's, children's undergarments.....		103.5	106.7	110.9	113.2	111.1	105.9	95.8	98.9	101.3	105.5	107.1	106.3	98.9	97.4
Millinery.....		24.4	21.5	18.4	22.8	23.4	23.7	20.2	17.8	18.9	20.7	26.5	26.5	22.3	22.9
Children's outerwear.....		67.9	65.8	65.2	68.9	68.6	68.5	67.2	65.3	62.6	63.6	68.4	68.5	63.4	59.5
Fur goods and miscellaneous apparel.....		88.7	92.1	97.4	101.2	99.0	96.2	86.6	88.6	85.4	82.6	83.6	82.8	88.2	90.1
Other fabricated textile products.....		148.5	147.7	151.7	157.2	152.5	150.1	137.9	137.8	137.9	136.9	138.4	137.9	135.8	125.6
Lumber and wood products (except furniture)	792	795	816	838	849	853	845	812	803	784	753	738	713	736	812
Logging camps and contractors.....		66.5	71.3	77.5	78.4	78.1	78.8	76.2	73.7	67.4	59.2	59.3	49.2	61.4	72.8
Sawmills and planing mills.....		455.0	470.8	484.3	492.5	498.7	494.5	474.6	467.3	459.1	439.8	429.8	416.1	431.7	472.9
Millwork, plywood, and prefabricated structural wood products.....		127.5	129.0	129.9	131.0	130.4	129.5	124.9	124.4	122.0	120.2	117.2	116.8	110.5	119.5
Wooden containers.....		82.2	80.9	82.3	82.7	81.8	79.7	77.5	77.9	75.5	74.4	73.2	73.0	73.3	81.8
Miscellaneous wood products.....		64.1	63.7	63.8	64.0	63.9	62.0	59.2	59.5	59.9	59.8	58.8	57.7	59.0	65.2

See footnotes at end of table.

TABLE A-2: Employees in Nonagricultural Establishments, by Industry Division and Group 1—Con.

[In thousands]

Industry group and industry	1951		1950										Annual average		
	Feb.	Jan.	Dec.	Nov.	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	Feb.	1949	1948
Manufacturing—Continued															
Furniture and fixtures.....	373	370	373	376	378	376	367	350	349	348	347	344	341	315	348
Household furniture.....	264.1	266.7	270.5	270.9	269.0	262.1	249.5	249.8	248.5	248.8	247.3	244.9	222.0	247.0	247.0
Other furniture and fixtures.....	105.9	106.3	105.8	107.1	107.1	104.9	100.0	99.5	99.4	98.6	97.1	96.1	94.6	100.9	100.9
Paper and allied products.....	498	497	501	500	491	488	479	465	467	459	458	455	453	447	470
Pulp, paper, and paperboard mills.....	242.1	244.4	242.8	241.7	241.5	238.6	234.8	235.2	231.8	230.6	230.2	229.3	226.9	240.7	240.7
Paperboard containers and boxes.....	139.2	140.9	141.9	140.0	137.4	131.7	123.4	124.2	121.3	121.3	120.5	120.0	117.1	121.4	121.4
Other paper and allied products.....	115.5	115.2	114.9	109.5	109.2	109.1	106.4	107.6	105.7	105.6	104.7	103.7	103.1	107.6	107.6
Printing, publishing, and allied industries.....	757	755	764	759	754	746	741	739	739	736	735	734	732	727	725
Newspapers.....	294.0	299.4	295.9	292.9	295.1	292.7	295.1	295.0	293.9	293.5	291.6	289.5	282.5	267.5	267.5
Periodicals.....	53.2	53.2	53.3	52.8	51.5	51.8	51.7	51.4	51.6	51.5	52.0	52.1	53.4	54.7	54.7
Books.....	48.3	48.6	48.4	48.4	48.4	47.8	46.2	46.3	46.0	45.3	45.2	44.8	44.6	46.6	46.6
Commercial printing.....	206.3	207.0	205.3	204.8	200.1	198.8	198.1	199.6	197.9	198.9	199.2	198.5	197.1	197.5	197.5
Lithographing.....	40.8	42.0	42.4	42.1	41.1	40.5	40.0	40.0	40.0	39.9	40.1	40.1	41.1	45.1	45.1
Other printing and publishing.....	112.7	114.0	113.7	113.1	110.0	108.9	108.2	106.8	106.2	106.2	105.7	106.3	106.7	108.0	113.3
Chemicals and allied products.....	735	729	724	720	701	684	669	670	671	675	671	665	664	699	699
Industrial inorganic chemicals.....	78.0	77.5	77.1	76.6	69.3	68.3	70.3	72.9	71.4	70.5	69.4	68.8	68.4	70.9	70.9
Industrial organic chemicals.....	215.8	214.3	211.3	203.8	206.4	203.6	199.8	198.4	195.7	194.1	191.9	189.5	192.1	210.3	210.3
Drugs and medicines.....	101.1	101.3	100.2	99.5	98.4	96.7	95.9	94.2	93.1	93.4	91.1	91.4	92.3	89.5	89.5
Paints, pigments, and fillers.....	73.6	74.1	73.7	74.0	74.2	73.5	72.7	71.5	69.7	69.1	68.9	68.3	67.3	70.7	70.7
Fertilizers.....	37.3	32.9	32.1	32.9	32.7	29.6	28.3	30.2	36.2	41.6	40.9	38.5	34.3	35.9	35.9
Vegetable and animal oils and fats.....	57.0	58.7	60.9	61.9	54.3	48.7	46.8	48.2	50.0	53.2	55.3	56.2	56.1	56.2	56.2
Other chemicals and allied products.....	166.1	165.3	164.6	166.4	165.4	164.0	155.6	154.9	154.4	153.4	153.0	152.4	153.0	165.0	165.0
Products of petroleum and coal.....	255	253	254	254	252	251	254	241	239	236	234	241	242	245	250
Petroleum refining.....	201.8	201.6	201.5	199.3	193.1	193.1	200.5	189.0	187.8	186.2	185.7	194.8	195.1	198.7	199.1
Coke and byproducts.....	21.3	21.2	21.2	21.4	21.5	21.4	21.4	21.1	21.1	20.7	20.5	19.7	19.6	20.0	20.0
Other petroleum and coal products.....	30.1	31.2	30.8	31.3	31.2	31.2	32.5	30.5	30.1	28.6	27.8	26.9	26.8	30.8	30.8
Rubber products.....	274	275	273	272	269	265	258	249	247	241	238	237	236	259	259
Tires and inner tubes.....	115.9	116.8	117.2	115.7	115.2	112.8	111.3	110.8	108.1	106.6	106.3	105.8	105.8	121.1	121.1
Rubber footwear.....	30.1	29.1	28.5	28.0	26.9	25.7	24.1	24.2	23.9	24.1	24.2	23.6	26.4	29.6	29.6
Other rubber products.....	128.6	127.5	126.6	125.3	122.5	119.1	113.6	112.4	108.8	107.4	106.1	106.2	100.5	107.9	107.9
Leather and leather products.....	410	402	397	399	406	411	409	390	382	374	379	396	395	310	310
Leather.....	51.8	51.9	51.8	51.4	51.9	51.1	49.5	49.6	49.5	49.5	50.0	50.1	49.7	54.2	54.2
Footwear (except rubber).....	256.2	251.2	248.4	253.4	259.5	260.4	252.8	247.2	240.4	244.3	257.4	257.4	251.0	260.1	260.1
Other leather products.....	94.4	93.6	93.6	101.5	99.6	97.5	88.1	84.9	83.8	85.4	88.4	87.9	87.2	95.4	95.4
Stone, clay, and glass products.....	549	546	547	550	544	532	532	512	511	501	487	478	475	514	514
Glass and glass products.....	144.3	144.3	145.6	144.1	133.8	137.9	130.8	134.4	131.7	128.8	124.8	123.9	122.6	135.9	135.9
Cement, hydraulic.....	41.9	42.4	42.7	43.1	42.4	43.3	41.7	42.6	42.2	41.5	40.6	41.0	41.8	40.9	40.9
Structural clay products.....	86.8	87.1	88.6	87.9	88.0	87.2	85.2	83.0	80.2	76.0	75.5	75.2	79.8	83.4	83.4
Pottery and related products.....	60.6	60.8	60.9	58.1	58.8	57.4	55.3	56.0	57.6	57.6	58.0	57.6	57.5	60.6	60.6
Concrete, gypsum, and plaster products.....	97.2	97.9	98.3	98.5	98.1	98.3	95.5	93.9	90.0	86.4	84.0	83.6	84.6	87.8	87.8
Other stone, clay, and glass products.....	114.8	114.4	113.7	112.5	110.5	107.4	103.5	101.4	99.4	77.1	94.7	94.1	97.1	105.9	105.9
Primary metal industries.....	1,324	1,323	1,315	1,301	1,289	1,276	1,256	1,222	1,216	1,190	1,171	1,144	1,137	1,101	1,247
Blast furnaces, steel works, and rolling mills.....	636.8	636.1	635.6	633.7	632.5	630.5	621.4	616.4	606.3	599.2	583.3	587.5	550.4	612.0	612.0
Iron and steel foundries.....	271.1	267.1	262.5	265.4	260.2	241.2	229.7	227.7	220.8	215.7	208.6	203.6	217.0	259.3	259.3
Primary smelting and refining of non-ferrous metals.....	57.0	56.6	54.8	55.5	54.8	55.1	54.3	55.2	54.6	54.2	54.4	54.1	52.3	55.6	55.6
Rolling, drawing, and alloying of non-ferrous metals.....	103.8	104.0	102.9	102.3	101.9	99.5	96.0	96.2	95.1	93.2	92.4	90.6	87.0	103.8	103.8
Nonferrous foundries.....	109.8	109.6	106.6	104.8	100.7	96.0	92.1	91.4	87.3	84.3	83.3	80.8	75.8	85.2	85.2
Other primary metal industries.....	144.1	141.7	138.9	137.6	136.2	133.9	128.7	129.2	126.1	124.1	121.6	120.8	118.4	130.7	130.7
Fabricated metal products (except ordnance, machinery, and transportation equipment).....	1,023	1,015	1,020	1,017	1,013	996	972	929	923	894	876	863	851	859	976
Tin cans and other tinware.....	49.8	51.2	50.2	51.9	55.5	55.8	51.3	48.6	45.5	44.6	43.5	41.8	45.8	48.7	48.7
Cutlery, hand tools, and hardware.....	169.0	169.4	168.0	166.1	163.1	156.7	153.0	156.2	154.3	152.5	151.2	147.3	142.8	154.4	154.4
Heating apparatus (except electric) and plumbers' supplies.....	157.9	161.2	163.4	164.4	164.1	158.8	147.2	148.1	144.4	143.9	140.4	137.8	132.0	165.8	165.8
Fabricated structural metal products.....	220.9	220.6	219.3	216.7	209.9	210.3	201.3	198.0	192.4	190.3	187.6	185.1	198.5	215.9	215.9
Metal stamping, coating, and engraving.....	186.7	186.8	185.6	184.8	182.9	179.3	172.7	170.7	162.6	156.3	152.9	152.1	147.9	172.2	172.2
Other fabricated metal products.....	230.3	231.1	230.7	229.1	226.0	211.5	203.1	201.2	194.8	188.0	187.7	187.0	192.4	219.0	219.0
Machinery (except electrical).....	1,557	1,527	1,492	1,459	1,426	1,368	1,374	1,343	1,341	1,328	1,307	1,283	1,261	1,311	1,533
Engines and turbines.....	83.9	82.0	78.8	72.9	70.2	74.8	72.8	73.5	73.6	70.9	68.7	66.5	72.5	83.8	83.8
Agricultural machinery and tractors.....	186.4	175.1	164.4	163.5	140.5	179.5	180.1	180.5	180.7	180.5	177.5	175.2	181.3	191.3	191.3
Construction and mining machinery.....	114.0	112.4	110.9	108.9	105.6	101.6	99.1	98.1	95.9	95.4	92.2	93.4	101.3	122.6	122.6
Metalworking machinery.....	267.9	258.8	251.5	242.9	233.5	222.1	212.0	212.3	207.2	204.5	201.6	198.4	208.7	239.5	239.5
Special-industry machinery (except metalworking machinery).....	189.3	184.3	180.6	178.2	174.6	168.6	165.3	165.4	162.7	160.8	158.7	157.1	171.8	201.9	201.9
General industrial machinery.....	216.0	212.2	207.1	203.0	197.6	191.7	185.0	182.8	181.3	178.8	175.7	174.0	186.4	209.8	209.8
Office and store machines and devices.....	99.5	99.2	97.9	95.9	94.4	90.8	89.5	89.3	88.4	88.0	87.0	85.4	90.6	109.1	109.1
Service-industry and household machines.....	180.7	182.1	185.5	182.0	180.1	178.6	178.8	180.8	181.5	175.6	169.3	163.9	145.4	191.3	191.3
Miscellaneous machinery parts.....	189.0	186.1	182.4	178.2	171.4	166.3	160.5	158.5	156.2	149.3	147.0	147.0	153.2	183.4	183.4

See footnotes at end of table.

TABLE A-2: Employees in Nonagricultural Establishments, by Industry Division and Group¹

[In thousands]

Industry group and industry	1951		1950										Annual average		
	Feb.	Jan.	Dec.	Nov.	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	Feb.	1949	1948
Manufacturing—Continued															
Electrical machinery	925	922	935	929	915	872	853	817	810	800	791	779	772	759	869
Electrical generating, transmission, distribution, and industrial apparatus	348.1	348.7	344.7	341.5	323.5	323.9	313.8	308.2	306.7	303.3	300.0	298.1	295.2	295.2	332.9
Electrical equipment for vehicles	77.2	77.4	75.9	75.0	73.3	70.9	70.0	68.9	67.8	66.6	65.1	65.5	64.5	69.0	69.0
Communication equipment	345.5	355.8	354.6	345.5	326.5	318.1	297.0	296.1	289.4	287.6	283.2	279.7	271.1	312.2	312.2
Electrical appliances, lamps, and miscellaneous products	151.3	153.4	154.1	152.8	149.0	139.6	136.2	136.6	136.5	133.7	130.5	128.8	128.3	154.8	154.8
Transportation equipment	1,480	1,437	1,410	1,380	1,394	1,365	1,347	1,297	1,305	1,269	1,122	1,100	1,091	1,212	1,263
Automobiles	900.8	897.1	887.7	922.7	913.3	907.9	883.7	893.4	862.4	720.3	698.9	689.0	769.0	792.8	792.8
Aircraft and parts	362.0	341.6	323.4	305.1	286.0	272.8	259.3	256.4	253.9	253.3	252.4	251.7	255.6	228.1	228.1
Aircraft	244.4	230.4	217.5	205.0	195.8	183.7	172.8	170.5	169.0	167.9	166.5	166.1	169.7	151.7	151.7
Aircraft engines and parts	69.9	66.8	63.4	60.1	52.5	54.1	52.8	52.1	50.7	50.7	50.6	50.2	51.8	46.7	46.7
Aircraft propellers and parts	9.3	9.1	8.9	8.5	8.2	7.5	7.7	7.8	7.9	7.9	8.0	8.1	7.9	7.4	7.4
Other aircraft parts and equipment	38.4	35.3	33.6	31.5	29.5	27.5	26.0	26.0	26.3	26.8	27.3	27.3	26.2	22.4	22.4
Ship and boat building and repairing	95.7	91.8	88.9	88.6	89.1	91.7	81.2	80.9	80.0	79.9	80.2	81.2	100.3	140.7	140.7
Ship building and repairing	81.7	77.6	75.5	75.3	75.8	78.4	67.4	66.4	66.2	66.7	68.3	70.0	88.2	124.2	124.2
Boat building and repairing	14.0	14.2	13.4	13.3	13.3	13.3	13.8	14.5	13.8	13.2	11.9	11.2	12.1	16.4	16.4
Railroad equipment	66.0	66.0	65.9	64.3	63.0	61.8	61.3	63.5	61.6	58.4	59.2	60.1	76.1	84.8	84.8
Other transportation equipment	12.2	13.1	13.6	13.7	13.4	12.9	11.6	11.1	10.7	10.1	9.6	9.1	10.9	16.6	16.6
Instruments and related products	286	280	280	277	272	265	252	242	243	238	238	234	232	238	260
Ophthalmic goods	27.1	26.9	26.7	26.2	25.6	25.1	24.8	24.8	24.8	25.0	25.1	25.1	26.8	28.2	28.2
Photographic apparatus	55.3	55.2	55.1	54.5	53.9	52.8	51.0	50.1	49.1	48.5	48.2	48.1	52.6	60.3	60.3
Watches and clocks	33.4	33.9	33.7	32.8	31.5	28.0	27.8	28.1	28.0	28.5	28.9	29.3	31.4	40.8	40.8
Professional and scientific instruments	164.3	164.1	161.1	161.1	153.5	146.0	138.1	139.8	136.5	133.7	131.5	129.7	127.1	130.5	130.5
Miscellaneous manufacturing industries	495	488	498	508	510	493	471	430	439	434	435	433	429	426	466
Jewelry, silverware, and plated ware	57.1	57.2	58.2	58.2	57.2	55.4	51.1	52.8	52.7	52.7	53.2	54.4	55.4	60.3	60.3
Toys and sporting goods	73.1	78.0	82.0	84.5	81.3	78.9	71.5	72.6	70.3	69.5	67.2	63.8	68.7	80.8	80.8
Costume jewelry, buttons, notions	63.2	62.4	64.3	65.7	63.7	61.1	52.1	52.4	51.4	53.1	56.5	59.4	57.7	62.3	62.3
Other miscellaneous manufacturing industries	294.8	299.9	303.1	301.7	290.8	276.0	254.8	261.3	260.0	259.8	256.5	251.3	243.8	262.8	262.8
Transportation and public utilities	4,078	4,072	4,125	4,123	4,132	4,139	4,120	4,062	4,023	3,885	3,928	3,873	3,841	3,979	4,151
Transportation	2,864	2,859	2,908	2,911	2,912	2,913	2,891	2,839	2,813	2,685	2,733	2,682	2,651	2,756	2,934
Interstate railroads	1,426	1,460	1,465	1,462	1,458	1,441	1,414	1,407	1,296	1,356	1,315	1,290	1,367	1,517	1,517
Class I railroads	1,253	1,277	1,292	1,291	1,283	1,272	1,246	1,240	1,135	1,188	1,148	1,123	1,191	1,327	1,327
Local railways and bus lines	145	145	145	145	146	146	148	147	149	150	151	152	158	163	163
Trucking and warehousing	619	622	617	621	621	614	589	577	562	554	550	545	548	566	566
Other transportation and services	669	681	684	684	688	690	689	682	678	673	666	664	684	687	687
Air transportation (common carrier)	75.1	74.6	74.2	74.4	74.7	74.5	75.7	74.6	74.6	73.7	74.2	73.6	76.7	77.9	77.9
Communication	670	668	670	664	670	671	667	662	659	657	654	654	686	696	696
Telephone	618.6	620.4	614.8	620.9	621.6	622.9	619.5	614.6	610.7	600.2	607.0	606.7	632.2	634.2	634.2
Telegraph	48.3	48.6	48.0	47.9	48.0	47.2	46.7	46.7	46.9	46.9	45.7	46.2	52.5	60.8	60.8
Other public utilities	544	545	547	548	550	555	558	556	548	541	538	537	536	537	521
Gas and electric utilities	520.9	522.5	523.5	525.1	529.5	531.7	530.4	522.3	515.8	512.5	511.5	510.6	512.0	497.0	497.0
Electric light and power utilities	231.7	232.6	233.2	234.0	236.6	238.6	238.4	235.2	232.5	231.4	232.0	232.1	233.5	226.4	226.4
Gas utilities*	116.6	117.4	117.6	118.1	118.6	118.0	117.6	115.5	113.1	111.7	110.5	110.2	110.2	110.2	110.2
Electric light and gas utilities combined*	172.6	172.5	172.7	173.0	174.3	175.1	174.4	171.6	170.2	169.4	169.0	168.3	168.3	168.3	168.3
Local utilities	24.0	24.6	24.7	24.8	25.4	25.9	25.7	25.6	25.0	25.3	25.0	25.1	24.6	23.7	23.7
Trade	9,563	9,616	10,459	9,896	9,752	9,641	9,474	9,380	9,411	9,326	9,346	9,206	9,152	9,438	9,491
Wholesale trade	2,603	2,592	2,619	2,618	2,625	2,605	2,582	2,502	2,479	2,477	2,484	2,495	2,522	2,533	2,533
Retail trade	6,960	7,024	7,840	7,278	7,127	7,036	6,892	6,862	6,909	6,847	6,869	6,722	6,657	6,916	6,958
General merchandise stores	1,429	1,477	2,063	1,654	1,539	1,474	1,387	1,372	1,411	1,412	1,466	1,392	1,360	1,480	1,470
Food and liquor stores	1,254	1,242	1,262	1,242	1,219	1,210	1,200	1,203	1,205	1,204	1,200	1,192	1,185	1,198	1,195
Automotive and accessories dealers	736	742	753	746	741	743	749	746	733	714	706	699	700	676	634
Apparel and accessories stores	520	529	644	565	555	540	491	501	536	533	545	519	496	554	577
Other retail trade	3,021	3,034	3,118	3,071	3,073	3,069	3,065	3,040	3,024	2,984	2,952	2,920	2,916	3,008	3,081

See footnotes at end of table.

TABLE A-2: Employees in Nonagricultural Establishments, by Industry Division and Group ¹—Con

[In thousands]

Industry group and industry	1951		1950											Annual average	
	Feb.	Jan.	Dec.	Nov.	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	Feb.	1949	1948
Finance	1,843	1,833	1,830	1,820	1,821	1,827	1,837	1,831	1,827	1,812	1,803	1,791	1,777	1,763	1,716
Banks and trust companies.....	441	439	436	433	433	433	435	432	427	421	420	419	416	416	403
Security dealers and exchanges.....	62.2	61.5	61.1	60.8	60.9	60.9	61.4	61.3	60.0	59.2	58.2	57.7	57.2	55.5	57.9
Insurance carriers and agents.....	655	656	651	651	654	658	652	646	640	639	637	634	619	589	589
Other finance agencies and real estate.....	675	673	672	676	679	683	686	694	692	686	677	670	672	665	665
Service	4,680	4,666	4,695	4,723	4,757	4,816	4,827	4,841	4,826	4,790	4,757	4,708	4,696	4,782	4,799
Hotels and lodging places.....	429	431	433	441	475	512	515	482	451	441	441	431	430	464	478
Laundries.....	353.6	353.1	353.1	355.5	357.5	358.6	363.4	362.1	353.7	347.4	345.5	345.0	352.2	356.1	356.1
Cleaning and dyeing plants.....	145.3	146.8	149.2	151.1	150.0	147.1	151.6	155.9	150.1	146.1	141.3	139.7	146.9	149.9	149.9
Motion pictures.....	242	242	243	244	246	244	245	249	236	236	236	236	237	241	241
Government	6,122	6,088	6,376	6,037	6,039	6,004	5,793	5,741	5,832	5,900	5,915	5,769	5,742	5,811	5,613
Federal.....	2,085	2,027	2,333	1,980	1,948	1,916	1,841	1,820	1,851	1,890	1,939	1,802	1,800	1,902	1,827
State and local.....	4,037	4,061	4,043	4,057	4,091	4,088	3,952	3,921	3,981	4,010	3,976	3,967	3,942	3,911	3,786

¹ The Bureau of Labor Statistics' series of employment in nonagricultural establishments are based upon reports submitted by cooperating establishments and, therefore, differ from employment information obtained by household interviews, such as the Monthly Report on the Labor Force (table A-1), in several important respects. The Bureau of Labor Statistics' data cover all full- and part-time employees in private nonagricultural establishments who worked during, or received pay for, the pay period ending nearest the 15th of the month; in Federal establishments during the pay period ending just before the first of the month; and in State and local government during the pay period ending on or just before the last of the month, while the Monthly Report on the Labor Force data relate to the calendar week which contains the 8th day of the month. Proprietors, self-employed persons, domestic servants, and personnel of the Armed Forces are excluded from the BLS but not the MRLF series. These employment series have been adjusted to bench-mark levels indicated by social insurance agency data through 1947. Revised data in all except the first four columns will be identified by asterisks the first month they are published.

² Includes: ordnance and accessories; lumber and wood products (except furniture); furniture and fixtures; stone, clay, and glass products; primary metal industries; fabricated metal products (except ordnance, machinery, and transportation equipment); machinery (except electrical); electrical machinery; transportation equipment; instruments and related products; and miscellaneous manufacturing industries.

³ Includes: food and kindred products; tobacco manufactures; textile-mill products; apparel and other finished textile products; paper and allied products; printing, publishing, and allied industries; chemicals and allied products; products of petroleum and coal; rubber products; and leather and leather products.

⁴ Data by region, from January 1940, are available upon request to the Bureau of Labor Statistics.

*New series; data are available from January 1950.

All series may be obtained upon request to the Bureau of Labor Statistics. Requests should specify which industry series are desired.

TABLE A-3: Production Workers in Mining and Manufacturing Industries¹

[In thousands]

Industry group and industry	1951		1950											Annual average	
	Feb.	Jan.	Dec.	Nov.	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	Feb.	1949	1948
Mining:															
Metal.....		92.4	92.0	90.9	89.7	91.1	90.8	91.4	90.0	88.5	87.2	87.3	86.9	89.0	94.7
Iron.....		32.5	32.5	32.6	32.8	33.4	33.4	32.9	32.4	31.8	30.3	30.5	30.2	30.4	33.6
Copper.....		25.3	25.2	24.9	24.6	24.8	24.8	24.9	24.7	24.8	24.8	24.7	24.7	24.7	25.0
Lead and zinc.....		18.4	18.1	17.7	17.4	17.9	17.5	18.0	17.4	16.7	16.6	16.6	16.5	18.1	19.2
Anthracite.....		68.9	68.8	69.8	69.9	70.5	70.8	69.2	70.8	71.6	70.7	72.3	71.4	72.8	75.8
Bituminous-coal.....		376.7	380.7	379.6	381.5	381.8	383.0	357.6	385.0	387.9	393.8	398.4	60.0	373.4	413.1
Crude petroleum and natural gas production:															
Petroleum and natural gas production (except contract services).....		124.1	124.8	124.1	126.0	128.3	130.3	129.7	127.7	124.2	123.5	123.3	123.3	127.1	127.1
Nonmetallic mining and quarrying.....		84.3	86.5	89.4	89.6	90.2	90.6	88.8	87.6	85.0	82.4	78.3	77.3	83.7	87.6
Manufacturing.....	13,120	13,017	13,058	13,044	13,133	13,016	12,802	12,161	12,066	11,841	11,597	11,549	11,460	11,597	12,717
Durable goods ²	7,325	7,256	7,256	7,210	7,186	7,013	6,900	6,597	6,596	6,456	6,195	6,070	5,982	6,096	6,909
Nondurable goods ³	5,795	5,761	5,802	5,834	5,957	6,003	5,902	5,554	5,470	5,385	5,402	5,479	5,478	5,501	5,808
Ordnance and accessories.....	25.2	24.4	23.7	23.3	22.3	21.6	20.1	19.0	18.9	18.6	18.3	17.9	17.4	20.2	23.9
Food and kindred products.....	1,096	1,117	1,154	1,196	1,260	1,350	1,331	1,231	1,141	1,090	1,065	1,060	1,055	1,172	1,197
Meat products.....		249.9	253.1	244.3	240.0	235.7	235.8	234.8	232.0	227.4	223.3	228.3	231.5	231.3	215.8
Dairy products.....		94.9	97.0	100.4	101.9	107.4	113.7	116.1	114.4	108.2	102.8	99.1	96.7	107.9	111.0
Canning and preserving.....		131.4	143.1	171.4	226.3	324.2	302.1	222.8	150.6	126.8	119.9	109.3	109.8	180.8	195.3
Grain-mill products.....		94.9	92.8	93.2	96.8	98.1	97.7	95.9	94.6	92.2	91.4	92.1	92.0	95.3	93.6
Bakery products.....		188.6	191.1	193.4	196.3	194.3	192.2	193.9	190.7	192.6	191.0	190.0	187.6	191.2	195.5
Sugar.....		26.0	39.9	46.5	45.8	29.5	28.8	26.0	24.7	24.4	22.6	22.9	22.7	28.5	30.0
Confectionery and related products.....		83.4	88.9	93.5	97.2	92.2	85.4	73.6	73.8	72.7	74.6	78.4	80.9	83.0	85.9
Beverages.....		146.3	146.0	148.8	149.4	159.4	169.3	163.5	156.5	146.4	140.9	139.4	134.4	150.6	161.4
Miscellaneous food products.....		101.1	102.4	104.4	106.6	108.5	106.1	104.1	103.3	99.4	98.4	100.7	99.4	103.8	108.1
Tobacco manufactures.....	79	80	83	84	89	89	82	75	75	76	76	78	81	87	93
Cigarettes.....		23.2	23.5	23.7	23.7	24.5	23.1	23.4	22.8	22.8	22.9	22.7	22.8	24.1	24.3
Cigars.....		39.0	40.2	41.2	41.0	39.5	38.6	37.3	37.6	37.2	38.7	40.2	42.4	46.2	46.2
Tobacco and snuff.....		10.6	10.5	10.5	11.0	11.1	10.7	10.4	10.5	10.6	11.0	11.0	11.1	11.5	12.2
Tobacco stemming and redrying.....		7.4	8.3	8.3	13.0	14.2	10.4	4.5	4.2	4.9	4.7	5.1	6.4	9.0	10.2
Textile-mill products.....	1,264	1,257	1,258	1,262	1,264	1,255	1,224	1,160	1,174	1,162	1,172	1,183	1,183	1,136	1,275
Yarn and thread mills.....		161.8	160.1	160.9	160.7	159.2	154.4	146.5	146.4	143.0	144.5	148.7	149.4	140.3	168.5
Broad-woven fabric mills.....		601.3	603.2	606.3	607.4	606.2	594.6	570.8	579.9	572.8	572.7	574.0	570.5	551.4	615.3
Knitting mills.....		232.0	234.0	233.9	236.3	233.3	227.1	209.4	211.7	212.8	217.9	221.4	222.5	213.4	231.4
Dyeing and finishing textiles.....		83.3	83.3	83.4	83.7	82.8	79.6	75.4	76.7	76.7	78.8	80.0	80.3	76.9	80.4
Carpets, rugs, other floor coverings.....		54.6	55.0	55.0	54.5	54.1	53.3	51.0	52.7	52.4	53.7	53.0	52.8	51.2	57.2
Other textile-mill products.....		123.9	122.7	122.3	121.3	119.3	115.4	106.6	106.5	104.4	104.5	106.3	107.8	102.8	121.7
Apparel and other finished textile products.....	1,105	1,071	1,065	1,056	1,100	1,099	1,089	981	976	976	1,003	1,058	1,065	1,022	1,049
Men's and boys' suits and coats.....		137.5	136.6	137.0	138.2	137.4	138.2	126.9	134.6	129.0	131.7	135.5	135.2	128.1	140.1
Men's and boys' furnishing and work clothing.....		250.3	251.1	253.3	254.2	253.8	252.0	231.9	237.8	238.6	241.3	244.9	243.6	239.8	250.7
Women's outerwear.....		302.1	295.3	274.8	297.0	305.3	306.6	265.6	247.9	253.5	271.6	305.4	315.2	294.3	308.7
Women's, children's undergarments.....		93.6	96.7	100.5	102.5	100.4	95.9	85.8	88.6	91.1	95.4	97.0	96.5	89.4	88.7
Millinery.....		21.7	19.0	15.9	20.1	20.7	20.9	17.6	15.3	16.4	18.0	23.8	23.4	19.5	20.2
Children's outerwear.....		61.9	60.1	59.6	63.1	62.5	62.6	61.3	59.2	57.0	58.0	62.6	62.7	58.0	54.7
Fur goods and miscellaneous apparel.....		77.1	80.0	85.3	89.0	87.5	85.1	75.9	77.2	74.4	71.8	72.6	72.1	76.5	78.5
Other fabricated textile products.....		126.3	125.7	130.0	135.5	131.1	128.1	116.0	115.8	115.8	115.4	116.6	116.2	115.8	107.5
Lumber and wood products (except furniture).....	728	732	752	773	785	790	783	750	741	723	692	677	652	676	752
Logging camps and contractors.....		62.0	66.7	73.0	73.8	73.6	74.4	71.4	69.4	62.9	54.7	54.8	45.0	57.6	69.5
Sawmills and planing mills.....		424.1	439.2	452.3	461.5	467.8	464.6	443.9	436.8	429.8	409.9	399.3	385.7	401.3	442.0
Millwork, plywood, and prefabricated structural wood products.....		111.2	113.0	113.8	114.8	114.4	113.7	109.1	108.5	106.2	104.4	101.7	101.2	95.7	105.0
Wooden containers.....		76.6	75.3	76.5	77.1	76.1	74.1	72.1	72.4	69.9	69.1	67.9	67.6	67.9	76.0
Miscellaneous wood products.....		57.8	57.4	57.4	57.7	57.6	55.8	53.1	53.5	54.0	54.0	53.5	52.4	53.1	59.2
Furniture and fixtures.....	323	321	325	327	329	327	319	303	303	302	303	301	297	272	306
Household furniture.....		234.5	238.3	241.5	241.9	240.2	234.2	221.8	222.3	221.4	222.0	220.9	218.2	194.8	221.6
Other furniture and fixtures.....		88.6	86.7	85.7	86.9	86.9	85.2	80.7	80.4	81.2	80.7	79.9	78.7	77.6	84.1

See footnotes at end of table.

TABLE A-3: Production Workers in Mining and Manufacturing Industries¹—Continued

[In thousands]

Industry group and industry	1951		1950										Annual average		
	Feb.	Jan.	Dec.	Nov.	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	Feb.	1949	1948
Manufacturing—Continued															
Paper and allied products.....	424	423	428	427	421	418	410	396	399	392	391	389	386	382	405
Pulp, paper, and paperboard mills.....	208.9	212.2	210.7	210.3	209.9	207.4	204.1	204.8	201.7	200.7	200.2	199.5	199.5	197.6	210.8
Paperboard containers and boxes.....	119.6	121.3	122.0	120.4	118.2	113.1	104.6	105.7	103.1	103.4	102.6	101.4	99.6	104.6	89.4
Other paper and allied products.....	94.6	94.6	94.3	90.5	90.2	89.9	87.5	88.9	86.9	86.6	86.2	85.4	85.2	89.4	
Printing, publishing, and allied industries.....	511	511	518	515	514	510	504	499	500	498	497	496	495	495	501
Newspapers.....	149.4	152.7	150.3	149.7	151.1	149.6	149.6	150.1	149.3	147.7	146.4	145.3	141.2	133.5	
Periodicals.....	34.6	34.9	35.0	35.1	35.2	34.5	34.1	33.7	34.5	35.0	35.2	35.1	36.0	37.3	
Books.....	35.9	36.7	36.6	36.6	37.2	36.4	34.6	35.3	35.1	34.9	35.2	34.9	36.4	38.6	
Commercial printing.....	170.4	170.8	170.2	170.2	166.5	165.0	164.4	165.7	164.1	164.9	165.3	164.6	164.4	165.5	
Lithographing.....	31.6	32.9	33.3	33.0	32.5	31.8	31.2	31.2	31.1	30.9	31.0	30.8	31.9	35.1	
Other printing and publishing.....	88.8	89.8	89.6	89.2	87.0	86.2	85.4	84.1	83.6	83.2	83.3	84.1	85.3	91.0	
Chemicals and allied products.....	532	526	523	521	523	506	491	479	482	485	490	487	485	485	520
Industrial inorganic chemicals.....	57.1	56.9	56.5	55.9	49.7	48.9	51.2	54.1	53.4	52.8	52.3	52.2	52.3	54.7	
Industrial organic chemicals.....	162.9	162.0	160.2	159.1	157.7	154.8	151.5	150.0	147.8	146.0	144.9	144.0	145.8	164.4	
Drugs and medicines.....	67.5	67.5	66.4	65.8	64.9	63.4	62.5	61.8	61.0	60.6	58.1	58.7	60.8	59.9	
Paints, pigments, and fillers.....	47.5	48.3	48.2	48.7	48.7	48.6	47.7	46.9	45.5	45.1	44.9	44.7	43.3	46.9	
Fertilizers.....	30.8	26.5	25.7	26.6	26.4	23.3	22.1	23.9	29.9	35.6	34.9	32.5	28.6	30.2	
Vegetable and animal oil and fats.....	45.1	47.1	49.6	50.8	43.5	38.2	36.2	37.6	39.6	42.7	44.9	45.8	45.1	46.6	
Other chemicals and allied products.....	115.1	114.7	114.6	115.8	115.0	113.8	108.1	108.1	107.6	106.9	106.8	106.7	108.4	117.6	
Products of petroleum and coal.....	191	190	191	191	190	189	193	182	181	177	176	182	183	188	192
Petroleum refining.....	147.3	147.4	147.5	146.5	144.6	147.4	138.5	137.8	136.1	135.6	142.8	144.0	148.8	148.9	
Coke and byproducts.....	18.5	18.4	18.4	18.6	18.7	18.7	18.5	18.1	17.9	17.0	16.8	16.8	16.9	17.5	
Other petroleum and coal products.....	24.3	25.1	24.6	25.1	25.3	26.4	24.9	24.5	23.2	22.3	21.8	21.8	22.0	25.3	
Rubber products.....	222	223	223	222	219	215	208	200	199	194	191	189	188	186	209
Tires and inner tubes.....	92.1	93.0	93.4	92.0	91.7	89.6	88.3	88.0	85.9	84.0	83.4	83.1	83.6	96.2	
Rubber footwear.....	24.9	23.9	23.2	22.8	21.8	20.7	19.2	19.3	19.1	19.3	19.4	18.8	21.6	24.6	
Other rubber products.....	106.1	105.6	105.0	104.1	101.0	98.0	92.8	92.0	88.8	87.2	86.2	86.3	80.9	88.1	
Leather and leather products.....	371	363	359	360	367	372	370	351	343	335	341	357	357	347	368
Leather.....	47.2	47.3	47.2	46.7	47.2	46.6	44.9	45.0	44.9	45.0	45.5	45.5	45.1	49.5	
Footwear (except rubber).....	233.7	229.1	225.8	230.3	236.7	237.3	229.8	224.3	217.5	224.5	234.5	234.5	226.2	234.8	
Other leather products.....	82.5	82.3	86.9	89.7	87.9	85.8	76.6	73.7	72.8	74.6	77.3	76.7	75.8	83.5	
Stone, clay, and glass products.....	475	472	473	477	471	458	459	440	441	432	419	410	408	416	448
Glass and glass products.....	127.7	127.6	128.9	127.0	117.0	121.7	114.4	118.3	115.9	112.8	108.9	108.2	106.8	119.6	
Cement, hydraulic.....	36.0	36.4	36.7	37.0	36.5	37.1	35.6	36.5	36.0	35.4	34.5	35.0	36.0	35.5	
Structural clay products.....	78.6	79.0	80.5	79.8	79.8	78.9	77.0	75.5	72.8	68.6	68.5	68.3	72.5	76.5	
Pottery and related products.....	54.7	55.1	55.1	52.2	53.0	51.8	49.8	50.6	52.2	52.3	52.7	52.2	52.2	55.5	
Concrete, gypsum, and plaster products.....	83.0	83.4	84.4	84.5	84.1	84.3	81.5	80.2	76.4	73.5	71.3	71.3	72.4	76.4	
Other stone, clay, and glass products.....	91.8	91.6	91.1	90.0	88.0	84.9	81.7	80.0	78.3	75.9	73.9	73.2	75.6	84.6	
Primary metal industries.....	1,149	1,149	1,142	1,126	1,117	1,105	1,086	1,054	1,050	1,026	1,007	982	978	940	1,083
Blast furnaces, steel works, and rolling mills.....	557.8	556.0	553.6	552.6	552.2	550.4	542.5	538.1	529.3	522.5	506.9	512.3	476.7	536.8	
Iron and steel foundries.....	241.0	238.3	232.8	226.8	221.9	213.3	202.1	200.2	193.5	188.1	182.1	177.1	188.9	230.9	
Primary smelting and refining of non-ferrous metals.....	47.5	47.3	45.4	46.3	45.8	45.8	45.1	46.0	45.5	45.2	45.4	45.3	43.3	46.8	
Rolling, drawing, and alloying of non-ferrous metals.....	87.1	87.2	85.9	85.8	85.3	83.1	79.5	80.1	78.9	77.1	76.5	75.0	70.6	86.0	
Nonferrous foundries.....	94.3	93.9	91.3	89.7	85.7	81.7	78.0	77.4	73.5	70.7	69.8	67.8	63.3	73.2	
Other primary metal industries.....	121.0	119.4	116.9	115.7	114.4	111.7	106.8	105.1	103.3	101.2	100.0	97.9	109.1		
Fabricated metal products (except ordnance, machinery, and transportation equipment).....	852	845	852	850	850	837	814	773	769	742	722	709	698	701	812
Tin cans and other tinware.....	44.0	45.3	44.2	45.9	49.8	50.2	45.5	43.1	40.1	39.0	38.0	36.3	39.9	42.2	
Cutlery, hand tools, and hardware.....	143.5	143.6	142.9	141.4	138.3	132.4	129.1	132.6	130.7	129.2	127.6	123.7	118.4	131.6	
Heating apparatus (except electric) and plumbers' supplies.....	129.9	132.8	135.3	137.1	137.1	131.9	120.4	121.9	118.6	117.7	114.0	112.3	106.0	137.1	
Fabricated structural metal products.....	173.0	173.0	171.7	170.9	165.6	165.1	158.0	154.3	148.5	145.8	142.7	140.6	152.3	168.7	
Metal stamping, coating, and engraving.....	161.5	161.6	160.9	160.7	159.1	155.8	149.9	148.1	140.5	134.4	131.2	130.4	125.8	148.6	
Other fabricated metal products.....	193.4	195.2	195.2	194.3	187.5	178.1	170.0	169.2	163.6	155.6	155.8	155.1	159.0	183.8	
Machinery (except electrical).....	1,217	1,191	1,163	1,133	1,104	1,050	1,060	1,032	1,033	1,022	1,003	981	960	1,001	1,203
Engines and turbines.....	63.8	62.2	60.3	55.0	52.1	56.6	54.7	55.5	56.0	53.4	51.1	48.9	53.9	63.9	
Agricultural machinery and tractors.....	146.1	135.5	124.8	124.3	102.3	140.0	140.5	141.2	141.5	142.4	139.5	137.4	142.4	151.7	
Construction and mining machinery.....	84.8	83.8	82.3	80.6	77.8	73.7	71.6	70.4	68.4	68.3	68.1	66.5	72.4	91.1	
Metalworking machinery.....	211.4	204.7	197.2	189.7	180.9	170.6	161.5	162.6	158.3	155.4	152.0	149.2	157.9	186.6	
Special-industry machinery (except metalworking machinery).....	143.5	140.4	137.6	135.8	132.2	127.4	124.3	124.6	122.7	120.9	119.0	117.7	131.1	158.6	
General industrial machinery.....	157.0	154.5	150.1	146.7	141.9	136.9	131.3	130.1	128.8	125.9	123.3	121.6	132.3	154.3	
Office and store machines and devices.....	84.4	83.2	81.9	80.3	79.0	75.6	74.3	74.2	73.5	73.2	72.0	70.5	75.4	93.0	
Service-industry and household machines.....	146.5	147.5	151.2	147.6	146.1	145.3	145.5	147.9	148.7	144.3	137.8	132.6	115.4	156.3	
Miscellaneous machinery parts.....	153.1	150.7	148.0	144.1	137.9	133.4	128.1	126.5	124.1	120.4	118.2	115.7	120.4	147.5	

See footnotes at end of table.

TABLE A-3: Production Workers in Mining and Manufacturing Industries ¹—Continued

[In thousands]

Industry group and industry	1951		1950											Annual average	
	Feb.	Jan.	Dec.	Nov.	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	Feb.	1949	1948
Manufacturing—Continued															
Electrical machinery.....	708	710	724	721	710	673	655	620	615	606	595	580	573	552	656
Electrical generating, transmission, distribution, and industrial apparatus.....	256.5	257.7	254.4	251.7	237.1	236.5	226.6	221.9	221.5	217.1	213.0	211.4	210.7	251.4	
Electrical equipment for vehicles.....	62.9	63.1	61.8	60.9	59.5	57.2	56.0	55.1	58.7	52.5	50.9	50.7	49.0	54.6	
Communication equipment.....	266.4	277.9	278.4	272.2	254.6	247.8	227.5	227.1	219.9	217.2	211.6	207.3	191.8	224.4	
Electrical appliances, lamps, and miscellaneous products.....	123.9	125.3	126.2	125.0	121.6	113.1	109.8	110.7	110.6	108.1	104.8	103.3	100.8	125.5	
Transportation equipment.....	1,215	1,189	1,165	1,139	1,157	1,134	1,118	1,070	1,078	1,045	899	879	987	1,031	
Automobiles.....	771.7	768.5	760.4	794.8	787.8	780.9	756.7	764.7	796.3	595.3	575.6	567.1	643.5	657.6	
Aircraft and parts.....	272.6	254.9	239.3	224.5	209.4	199.0	188.1	186.6	185.2	184.9	184.0	184.0	188.5	166.6	
Aircraft.....	185.0	172.6	161.4	151.5	144.5	134.8	126.3	125.1	124.4	123.4	122.2	122.4	126.6	111.5	
Aircraft engines and parts.....	51.4	49.2	46.3	43.6	37.3	33.9	37.4	37.0	36.0	36.1	36.0	35.7	37.4	33.6	
Aircraft propellers and parts.....	6.2	6.1	5.9	5.7	5.5	4.9	5.1	5.2	5.3	5.3	5.4	5.4	5.3	4.9	
Other aircraft parts and equipment.....	30.0	27.0	25.7	23.7	22.1	20.4	19.3	19.3	19.5	20.1	20.4	20.5	19.2	16.6	
Ship and boat building and repairing.....	81.9	78.7	76.1	75.8	76.3	79.0	67.9	68.3	67.2	66.6	66.9	67.6	85.0	123.2	
Shipbuilding and repairing.....	69.7	66.2	64.4	64.3	64.8	67.5	56.1	55.6	55.2	55.4	56.9	58.5	75.0	109.3	
Boat building and repairing.....	12.2	12.5	11.7	11.5	11.5	11.5	11.8	12.7	12.0	11.2	10.0	9.1	10.0	13.9	
Railroad equipment.....	52.0	51.9	51.7	50.4	49.3	48.2	47.7	48.8	47.5	43.5	44.2	45.4	61.0	69.6	
Other transportation equipment.....	10.4	11.2	11.8	11.9	11.6	11.0	9.8	9.4	9.1	8.6	8.0	7.5	9.2	14.5	
Instruments and related products.....	215	211	212	209	205	199	187	178	180	176	174	172	171	200	
Ophthalmic goods.....	22.2	22.0	21.8	21.3	20.8	20.2	19.9	20.0	20.1	20.2	20.2	20.2	20.3	21.9	
Photographic apparatus.....	40.9	40.9	40.7	40.2	39.5	38.5	37.0	36.5	35.4	34.8	34.6	34.5	38.4	45.4	
Watches and clocks.....	28.2	28.8	28.8	28.0	27.0	23.4	23.4	23.7	23.6	24.1	24.4	24.7	26.6	35.0	
Professional and scientific instruments.....	119.9	120.3	117.8	115.3	111.6	105.3	98.1	100.2	97.0	94.8	93.2	91.8	90.1	95.4	
Miscellaneous manufacturing industries.....	418	412	424	432	436	418	399	358	367	362	363	361	356	394	
Jewelry, silverware, and plated ware.....	46.8	47.0	47.8	48.1	47.2	45.5	41.4	42.5	42.1	42.0	42.3	43.7	45.0	49.8	
Toys and sporting goods.....	63.7	68.6	73.0	75.3	72.2	69.8	62.5	63.6	61.5	60.6	58.0	54.5	59.8	71.5	
Costume jewelry, buttons, notions.....	54.3	53.1	54.9	56.2	54.4	52.0	43.9	44.1	43.0	44.7	48.0	50.0	48.3	53.9	
Other miscellaneous manufacturing industries.....	247.0	255.0	256.4	256.1	244.3	232.0	210.2	217.1	215.2	215.4	212.9	207.5	200.5	219.4	

¹ See footnote 1, table A-2. Production workers refer to all full- and part-time employees engaged in production and related processes, such as fabricating, processing, assembling, inspecting, storing, packing, shipping, maintenance and repair, and other activities closely associated with production operations.

² See footnote 2, table A-2.

³ See footnote 3, table A-2.

TABLE A-4: Indexes of Production-Worker Employment and Weekly Payrolls in Manufacturing Industries ¹

[1939 average=100]

Period	Employment	Weekly payroll	Period	Employment	Weekly payroll	Period	Employment	Weekly payroll
1939: Average.....	100.0	100.0	1947: Average.....	156.2	326.9	1950: July.....	148.3	367.5
1940: Average.....	107.5	113.6	1948: Average.....	155.2	351.4	August.....	156.3	394.4
1941: Average.....	132.8	164.9	1949: Average.....	141.6	325.3	September.....	158.9	403.2
1942: Average.....	156.9	241.5	1950: February.....	139.9	330.0	October.....	160.3	415.8
1943: Average.....	183.3	331.1	March.....	141.0	333.5	November.....	159.2	414.6
1944: Average.....	178.3	343.7	April.....	141.6	337.2	December.....	156.4	425.8
1945: Average.....	157.0	293.5	May.....	144.5	348.0	1951: January.....	158.9	423.3
1946: Average.....	147.8	271.7	June.....	147.3	362.7	February.....	160.2	---

¹ See footnote 1, tables A-2 and A-3.

TABLE A-5: Federal Civilian Employment and Payrolls, by Branch and Agency Group

[In thousands]

Year and month	All branches	Executive ¹				Legislative	Judicial
		Total	Defense agencies ²	Post Office Department	All other agencies		
Employment—Total (including areas outside continental United States)							
1949: Average	2,100.5	2,089.2	869.2	511.1	678.9	7.7	3.6
1950: Average	2,080.5	2,068.6	837.5	521.4	709.7	8.1	3.8
1950: February	1,970.9	1,959.1	782.8	503.8	672.5	8.0	3.8
March	1,970.6	1,958.8	776.3	504.4	678.1	8.0	3.8
April	2,110.9	2,099.0	773.7	503.9	821.4	8.1	3.8
May	2,061.9	2,050.1	775.8	501.9	772.4	8.0	3.8
June	2,022.2	2,010.3	780.6	497.4	732.3	8.1	3.8
July	1,986.7	1,974.9	778.8	491.8	704.3	8.0	3.8
August	2,005.4	1,993.4	806.0	487.1	700.3	8.2	3.8
September	2,083.2	2,071.4	887.3	485.0	699.1	8.0	3.8
October	2,117.4	2,105.3	932.3	483.8	689.2	8.2	3.9
November	2,152.0	2,139.9	970.0	482.2	687.7	8.2	3.9
December	2,508.9	2,496.9	995.9	811.8	689.2	8.1	3.9
1951: January	2,204.3	2,192.3	1,017.3	486.5	688.5	8.1	3.9
February	2,265.5	2,253.5	1,076.8	487.1	689.6	8.1	3.9
Payrolls—Total (including areas outside continental United States)							
1949: Average	\$558,273	\$553,973	\$231,856	\$129,895	\$192,222	\$2,870	\$1,430
1950: Average	585,576	580,792	235,157	135,300	210,335	3,215	1,569
1950: February	521,041	516,525	198,064	131,085	187,376	3,083	1,433
March	583,186	578,339	225,091	133,461	219,787	3,222	1,625
April	539,430	534,757	162,199	131,117	211,441	3,232	1,441
May	577,915	573,026	220,044	130,361	222,621	3,246	1,643
June	573,659	568,889	221,123	131,202	216,564	3,214	1,556
July	551,510	546,806	212,778	129,803	204,225	3,206	1,498
August	618,049	613,138	259,451	130,361	223,326	3,277	1,634
September	601,454	596,537	261,527	128,764	206,246	3,200	1,717
October	613,359	608,511	267,622	129,665	211,224	3,250	1,598
November	621,491	616,609	273,633	129,869	213,107	3,292	1,590
December	672,724	667,988	275,681	185,732	206,575	3,207	1,529
1951: January	680,983	676,007	319,738	132,037	224,232	3,306	1,670
February	627,280	622,595	292,114	132,454	198,027	3,188	1,497
Employment—Continental United States							
1949: Average	1,921.9	1,910.7	761.4	509.1	640.2	7.7	3.5
1950: Average	1,930.5	1,918.7	732.3	519.4	667.0	8.1	3.7
1950: February	1,820.7	1,809.0	675.3	502.0	631.7	8.0	3.7
March	1,821.5	1,809.8	670.6	502.6	636.6	8.0	3.7
April	1,959.8	1,948.0	668.2	502.0	777.8	8.1	3.7
May	1,910.2	1,898.5	670.1	500.0	728.4	8.0	3.7
June	1,871.2	1,859.4	674.6	495.5	689.3	8.1	3.7
July	1,839.4	1,827.7	677.2	489.9	660.6	8.0	3.7
August	1,861.0	1,849.1	707.1	485.2	656.8	8.2	3.7
September	1,935.9	1,924.1	785.3	483.1	655.7	8.0	3.8
October	1,968.3	1,956.3	828.3	482.0	646.0	8.2	3.8
November	2,000.3	1,988.3	862.9	480.4	645.0	8.2	3.8
December	2,352.8	2,340.9	885.6	808.9	646.4	8.1	3.8
1951: January	2,047.4	2,035.5	905.1	484.7	645.7	8.1	3.8
February	2,105.0	2,093.1	961.0	485.3	646.8	8.1	3.8
Payrolls—Continental United States							
1949: Average	\$519,529	\$515,269	\$203,548	\$129,416	\$182,305	\$2,870	\$1,390
1950: Average	549,328	544,587	211,508	134,792	198,287	3,215	1,526
1950: February	488,138	483,662	176,371	130,599	176,692	3,083	1,393
March	546,866	542,061	201,071	132,969	208,021	3,222	1,583
April	506,707	502,074	171,555	130,629	199,890	3,232	1,401
May	541,195	536,351	196,249	129,841	210,261	3,246	1,598
June	536,052	531,325	196,621	130,704	203,700	3,214	1,513
July	516,924	512,261	191,109	129,316	191,836	3,206	1,457
August	580,732	575,867	235,435	129,870	210,562	3,277	1,588
September	563,900	559,029	237,332	128,278	193,419	3,200	1,671
October	576,155	571,357	243,233	129,178	198,946	3,250	1,548
November	583,978	579,140	248,667	129,413	201,060	3,292	1,546
December	634,578	629,886	250,324	185,044	194,518	3,207	1,485
1951: January	641,387	636,455	292,875	131,549	212,031	3,306	1,626
February	592,217	587,573	268,279	131,963	187,331	3,188	1,456

¹ See footnote 2, table A-7.

² See footnote 3, table A-7.

TABLE A-7: Civilian Government Employment and Payrolls in Washington, D. C.,¹ by Branch and Agency Group

[In thousands]

Year and month	Total government	District of Columbia government	Federal						Legislative	Judicial
			Total	Executive ²						
				All agencies	Defense agencies ³	Post Office Department	All other agencies			
Employment										
1949: Average	241.8	19.5	222.3	214.0	70.4	8.2	135.4	7.7	0.6	
1950: Average	242.3	20.1	222.2	213.4	67.5	8.1	137.8	8.1	.7	
1950: February	238.7	20.2	218.5	209.8	65.5	7.6	136.7	8.0	.7	
March	238.9	20.1	218.8	210.1	65.5	7.8	136.8	8.0	.7	
April	239.8	20.0	219.8	211.0	65.4	7.9	137.7	8.1	.7	
May	240.0	20.2	219.8	211.1	65.6	7.8	137.7	8.0	.7	
June	238.7	20.0	218.7	209.9	64.8	7.7	137.4	8.1	.7	
July	239.1	19.8	219.3	210.6	65.2	7.7	137.7	8.0	.7	
August	240.7	19.8	220.9	212.0	66.1	7.7	138.2	8.2	.7	
September	243.7	20.0	223.7	215.0	69.3	7.6	138.1	8.0	.7	
October	244.8	20.1	224.7	215.8	70.8	7.5	137.5	8.2	.7	
November	247.9	20.4	227.5	218.7	72.4	7.6	138.7	8.1	.7	
December	256.2	20.3	235.9	227.1	74.1	12.7	140.3	8.1	.7	
1951: January	253.7	20.5	233.2	224.4	74.8	7.8	141.8	8.1	.7	
February	259.0	20.6	238.4	229.6	77.4	7.7	144.5	8.1	.7	
Payrolls										
1949: Average	\$75,570	\$5,050	\$70,520	\$67,410	\$21,119	\$2,791	\$43,500	\$2,870	\$240	
1950: Average	81,602	5,321	76,281	72,780	22,888	2,937	46,955	3,215	286	
1950: February	73,142	5,218	67,924	64,586	19,387	2,787	42,412	3,083	255	
March	83,331	5,699	77,632	74,132	22,744	2,926	48,462	3,222	278	
April	74,469	5,029	69,440	65,944	20,416	2,786	42,742	3,232	264	
May	84,018	5,705	78,313	74,785	22,607	2,872	49,306	3,246	282	
June	82,733	5,590	77,143	73,656	22,186	2,867	48,603	3,214	273	
July	77,713	4,192	73,521	70,043	21,399	2,755	45,889	3,206	272	
August	85,472	4,514	80,958	77,372	24,459	2,918	49,995	3,277	309	
September	82,280	5,347	76,933	73,415	24,951	2,856	45,608	3,200	318	
October	84,657	5,680	78,977	75,424	24,495	2,892	48,037	3,250	303	
November	85,380	5,796	79,584	75,931	24,545	2,888	48,558	3,292	301	
December	85,285	5,558	79,727	76,228	24,786	3,835	47,607	3,207	292	
1951: January	88,105	5,919	82,186	78,564	26,543	2,944	49,077	3,306	316	
February	79,038	5,177	73,861	70,388	23,884	2,839	43,665	3,188	285	

¹ Data for the executive branch of the Federal Government also include areas in Maryland and Virginia which are within the metropolitan area, as defined by the Bureau of the Census.

² Includes Government corporations (including Federal Reserve Banks and mixed-ownership banks of the Farm Credit Administration) and other activities performed by Governmental personnel in establishments such as navy yards, arsenals, hospitals, and force-account construction. Data which are based mainly on reports to the Civil Service Commission are adjusted to maintain continuity of coverage and definition.

³ Covers civilian employees of the Department of Defense (Secretary of Defense, Army, Air Force, and Navy). National Advisory Committee for Aeronautics, the Panama Canal, Philippine Alien Property Administration, Philippine War Damage Commission, Selective Service System, National Security Resources Board, National Security Council, War Claims Commission.

TABLE A-11: Insured Unemployment Under State Unemployment Insurance Programs,¹ by Geographic Division and State

[In thousands]

Geographic division and State	1951		1950										1949	
	Jan.	Dec.	Nov.	Oct.	Sept.	Aug.	July	June	May	April	Mar.	Feb.	Jan.	Jan.
Continental United States.....	1,144.6	1,045.0	895.3	782.8	845.7	1,063.2	1,388.4	1,521.1	1,700.3	1,908.8	2,112.1	2,325.9	2,380.9	1,586.2
New England.....	91.6	89.0	77.4	65.9	74.5	105.0	155.3	186.5	224.6	225.1	162.5	181.5	202.8	163.8
Maine.....	10.2	11.4	10.3	6.8	5.2	7.4	10.1	13.0	19.6	22.7	17.5	19.5	21.8	13.1
New Hampshire.....	5.8	6.3	6.8	5.8	6.5	8.8	10.8	12.9	15.6	16.3	13.1	12.3	13.1	9.6
Vermont.....	1.7	1.7	1.3	1.1	1.4	2.1	3.1	3.4	4.0	4.6	4.5	5.5	6.1	3.1
Massachusetts.....	49.8	49.0	41.9	35.6	42.1	55.8	85.3	107.1	124.8	123.6	78.0	89.6	101.4	87.2
Rhode Island.....	10.5	9.3	6.9	6.3	8.4	13.7	20.1	26.6	33.6	25.9	15.4	16.3	19.2	21.5
Connecticut.....	13.6	11.3	10.2	10.3	10.9	17.2	25.9	23.5	27.0	32.0	34.0	38.3	41.2	29.3
Middle Atlantic.....	351.4	355.1	354.1	319.0	318.4	369.1	478.4	495.4	481.5	526.0	594.2	622.2	685.5	472.3
New York.....	217.5	238.4	257.8	226.2	221.6	242.2	311.0	307.4	269.2	292.2	319.3	343.1	379.1	300.3
New Jersey.....	51.3	41.1	38.7	35.4	34.3	44.6	60.7	68.1	79.6	84.9	88.3	92.1	101.5	67.4
Pennsylvania.....	82.6	75.6	57.6	57.4	62.5	82.3	106.7	119.9	132.7	148.9	186.6	187.0	204.9	104.6
East North Central.....	200.7	178.0	129.0	113.1	133.6	178.4	218.4	242.4	304.0	373.4	417.6	462.3	477.9	253.8
Ohio.....	40.9	36.4	30.2	28.5	32.3	41.0	57.5	65.0	81.6	103.5	130.9	146.9	157.4	58.7
Indiana.....	14.7	13.3	8.6	9.4	7.9	8.9	13.1	14.5	19.2	26.7	34.6	38.6	38.8	29.6
Illinois.....	76.5	68.2	58.6	57.5	71.3	103.6	117.5	128.6	147.6	148.1	133.2	148.4	158.4	82.6
Michigan.....	54.8	49.8	23.3	12.8	16.1	18.2	22.0	24.6	42.7	75.9	94.6	98.6	89.3	62.5
Wisconsin.....	13.8	10.3	8.3	4.9	6.0	6.7	8.3	9.7	12.9	19.2	24.3	29.8	34.0	20.4
West North Central.....	65.6	48.5	34.7	28.4	29.2	38.8	49.0	57.4	77.7	101.7	124.9	140.6	130.8	73.3
Minnesota.....	19.3	12.0	6.8	5.5	6.3	8.3	10.8	13.1	23.2	32.8	37.8	40.1	34.7	20.9
Iowa.....	7.0	4.3	2.9	2.6	3.5	4.5	4.8	5.1	6.2	8.9	13.5	15.8	15.2	8.4
Missouri.....	24.3	22.9	20.0	16.2	15.2	20.0	25.5	29.7	34.6	39.3	44.5	50.2	50.2	30.1
North Dakota.....	2.4	1.3	.3	.2	.2	.3	.4	.7	2.2	3.7	4.6	4.8	3.8	1.4
South Dakota.....	2.1	1.1	.5	.3	.3	.4	.4	.5	1.0	1.9	2.9	3.5	3.0	1.4
Nebraska.....	4.1	2.1	1.0	.8	.9	1.3	1.9	2.3	3.3	5.4	8.4	9.5	7.9	3.7
Kansas.....	6.4	4.8	3.2	2.8	2.8	4.0	5.2	6.0	7.2	9.7	13.2	16.7	16.0	7.4
South Atlantic.....	94.3	85.5	70.4	69.8	85.3	113.0	157.8	165.5	167.7	164.0	172.2	181.1	180.3	128.8
Delaware.....	1.9	1.4	.8	1.0	.9	1.2	1.8	1.9	2.3	2.7	3.5	3.8	3.8	2.0
Maryland.....	13.2	11.2	8.5	7.7	10.3	16.1	22.1	25.3	29.1	29.3	25.1	29.6	31.8	23.0
District of Columbia.....	3.3	2.8	2.7	2.6	3.0	3.4	4.0	4.1	4.6	5.9	6.5	6.6	5.0	4.1
Virginia.....	8.7	7.7	5.6	5.3	7.2	13.7	22.1	24.1	18.9	15.7	20.9	21.6	20.6	13.8
West Virginia.....	14.2	13.0	9.4	10.4	13.4	16.7	21.8	24.1	23.4	21.8	26.2	27.6	28.7	13.6
North Carolina.....	18.0	16.8	14.5	12.6	15.1	19.0	30.8	33.7	36.7	37.3	34.1	32.5	30.3	26.9
South Carolina.....	9.4	8.7	8.3	8.8	9.6	11.4	15.8	15.4	14.8	14.4	15.5	15.9	15.8	10.8
Georgia.....	14.1	12.9	9.7	7.6	8.9	12.4	18.9	21.1	23.2	22.8	25.0	26.5	24.7	17.9
Florida.....	11.5	11.0	10.9	13.8	16.9	19.1	20.5	15.8	14.7	14.1	15.4	17.0	19.6	16.7
East South Central.....	65.0	57.5	46.6	42.9	48.9	62.1	78.8	87.4	99.5	105.4	116.8	122.9	113.2	82.5
Kentucky.....	14.3	13.6	12.0	11.5	12.4	15.3	19.4	22.3	24.8	25.2	29.7	30.7	26.7	16.9
Tennessee.....	25.8	22.2	16.9	14.5	16.5	22.2	27.3	32.6	36.8	40.1	41.9	45.0	42.5	40.0
Alabama.....	15.1	13.8	12.3	12.1	14.2	16.9	22.1	21.9	25.4	25.9	28.3	28.6	27.1	16.0
Mississippi.....	9.8	7.9	5.4	4.8	5.8	7.7	10.0	10.6	12.5	14.2	16.9	18.6	16.9	9.6
West South Central.....	54.0	43.8	36.0	34.8	41.5	52.1	62.8	69.9	83.4	95.0	107.6	116.4	100.4	55.2
Arkansas.....	11.1	8.4	6.2	5.2	6.9	7.7	9.4	10.4	14.0	17.6	19.9	23.2	20.4	13.5
Louisiana.....	18.1	13.9	11.7	12.4	14.3	18.1	21.3	22.5	25.8	29.9	33.4	36.4	30.0	15.2
Oklahoma.....	11.1	9.2	7.6	7.0	8.0	9.8	11.4	12.6	14.8	16.9	19.2	21.7	20.1	11.4
Texas.....	13.7	12.3	10.5	10.2	12.3	16.5	20.7	24.4	28.8	30.6	35.1	35.1	29.9	15.1
Mountain.....	28.6	19.8	13.4	10.2	11.2	14.6	18.6	20.5	27.8	37.9	53.9	65.7	60.1	34.1
Montana.....	6.2	3.7	1.9	1.2	1.0	1.4	1.9	2.5	4.6	8.2	11.8	13.3	11.3	4.6
Idaho.....	6.2	4.3	2.9	.9	1.0	1.4	1.7	1.5	3.0	5.6	9.8	12.8	11.7	6.2
Wyoming.....	1.6	.9	.4	.3	.3	.4	.7	.9	1.4	2.0	3.2	3.9	3.1	1.1
Colorado.....	3.1	2.5	2.1	1.7	2.1	3.2	4.2	4.7	5.6	5.6	7.0	8.6	8.5	4.3
New Mexico.....	2.0	1.7	1.2	1.0	1.2	1.6	2.0	2.2	2.7	3.4	4.4	5.0	4.3	2.0
Arizona.....	3.2	2.8	2.6	2.6	2.9	3.4	3.6	3.6	4.2	4.7	5.8	7.1	7.0	5.1
Utah.....	4.4	2.4	1.9	1.5	1.7	2.1	3.1	3.5	4.3	5.9	8.6	11.1	10.3	8.4
Nevada.....	1.9	1.5	1.3	1.0	1.0	1.1	1.4	1.6	2.0	2.5	3.3	3.9	3.9	2.4
Pacific.....	193.2	167.9	133.8	98.8	103.2	129.9	169.4	196.1	234.2	280.4	362.7	432.9	430.1	322.4
Washington.....	81.2	26.2	19.0	11.7	11.1	13.2	15.6	16.5	23.9	36.0	54.3	82.6	87.4	53.7
Oregon.....	22.4	17.9	13.7	7.6	6.4	7.5	9.6	8.3	12.3	20.6	35.0	57.1	56.8	31.9
California.....	139.6	123.8	101.1	79.5	85.7	109.2	144.2	171.3	198.0	223.8	273.4	293.2	285.9	236.8

¹ Prior to August 1950, monthly data represent averages of weeks ended in specified months; for subsequent months, the averages are based on weekly data adjusted for split weeks in the month and are not strictly comparable with earlier data. For a technical description of this series, see the April 1950 Monthly Labor Review (p. 382).

Figures may not add to exact column totals because of rounding.

SOURCE: U. S. Department of Labor, Bureau of Employment Security.

B: Labor Turn-Over

TABLE B-1: Monthly Labor Turn-Over Rates (Per 100 Employees) in Manufacturing Industries, by Class of Turn-Over ¹

Class of turn-over and year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Total separation:												
1951	² 4.2											
1950	3.1	3.0	2.9	2.8	3.1	3.0	2.9	4.2	4.9	4.3	3.8	3.6
1949	4.6	4.1	4.8	4.8	5.2	4.3	3.8	4.0	4.2	4.1	4.0	3.2
1948	4.3	4.2	4.5	4.7	4.3	4.5	4.4	5.1	5.4	4.5	4.1	4.3
1947	4.9	4.5	4.9	5.2	5.4	4.7	4.6	5.3	5.9	5.0	4.0	3.7
1946	6.8	6.3	6.6	6.3	6.3	5.7	5.8	6.6	6.9	6.3	4.9	4.5
1939	3.2	2.6	3.1	3.5	3.5	3.3	3.3	3.0	2.8	2.9	3.0	3.5
Quit:												
1951	² 2.2											
1950	1.1	1.0	1.2	1.3	1.6	1.7	1.8	2.9	3.4	2.7	2.1	1.7
1949	1.7	1.4	1.6	1.7	1.6	1.5	1.4	1.8	2.1	1.5	1.2	.9
1948	2.6	2.5	2.8	3.0	2.8	2.9	2.9	3.4	3.9	2.8	2.2	1.7
1947	3.5	3.2	3.5	3.7	3.5	3.1	3.1	4.0	4.5	3.6	2.7	2.3
1946	4.3	3.9	4.2	4.3	4.2	4.0	4.6	5.3	5.3	4.7	3.7	3.0
1939 ³	.9	.6	.8	.8	.7	.7	.7	.8	1.1	.9	.8	.7
Discharge:												
1951	² .3											
1950	.2	.2	.2	.2	.3	.3	.3	.4	.4	.4	.3	.3
1949	.3	.3	.3	.2	.2	.2	.2	.3	.2	.2	.2	.2
1948	.4	.4	.4	.4	.3	.4	.4	.4	.4	.4	.4	.3
1947	.4	.4	.4	.4	.4	.4	.4	.4	.4	.4	.4	.4
1946	.5	.5	.4	.4	.4	.3	.4	.4	.4	.4	.4	.4
1939	.1	.1	.1	.1	.1	.1	.1	.1	.1	.2	.2	.1
Lay-off:												
1951	² 1.0											
1950	1.7	1.7	1.4	1.2	1.1	.9	.6	.6	.7	.8	1.1	1.3
1949	2.5	2.3	2.8	2.8	3.3	2.5	2.1	1.8	1.8	2.3	2.5	2.0
1948	1.2	1.2	1.2	1.2	1.1	1.1	1.0	1.2	1.0	1.2	1.4	2.2
1947	.9	.8	.9	1.0	1.4	1.1	1.0	.8	.9	.9	.8	.9
1946	1.8	1.7	1.8	1.4	1.5	1.2	.6	.7	1.0	1.0	.7	1.0
1939	2.2	1.9	2.2	2.6	2.7	2.5	2.5	2.1	1.6	1.8	2.0	2.7
Miscellaneous, including military:												
1951	² .7											
1950	.1	.1	.1	.1	.1	.1	.2	.3	.4	.4	.3	.3
1949	.1	.1	.1	.1	.1	.1	.1	.1	.1	.1	.1	.1
1948	.1	.1	.1	.1	.1	.1	.1	.1	.1	.1	.1	.1
1947	.1	.1	.1	.1	.1	.1	.1	.1	.1	.1	.1	.1
1946	.2	.2	.2	.2	.2	.2	.2	.2	.2	.2	.1	.1
Total accession:												
1951	² 5.1											
1950	3.6	3.2	3.6	3.5	4.4	4.8	4.7	6.6	5.7	5.2	4.0	3.0
1949	3.2	2.9	3.0	2.9	3.5	4.4	3.5	4.4	4.1	3.7	3.3	3.2
1948	4.6	3.9	4.0	4.0	4.1	5.7	4.7	5.0	5.1	4.5	3.9	2.7
1947	6.0	5.0	5.1	5.1	4.8	5.5	4.9	5.3	5.9	5.5	4.8	3.6
1946	8.5	6.8	7.1	6.7	6.1	6.7	7.4	7.0	7.1	6.8	5.7	4.3
1939	4.1	3.1	3.3	2.9	3.3	3.9	4.2	5.1	6.2	5.9	4.1	2.8

¹ Month-to-month changes in total employment in manufacturing industries as indicated by labor turn-over rates are not comparable with the changes shown by the Bureau's employment and payroll reports, for the following reasons:

(1) Accessions and separations are computed for the entire calendar month; the employment and payroll reports, for the most part, refer to a 1-week pay period ending nearest the 15th of the month.

(2) The turn-over sample is not so large as that of the employment and payroll sample and includes proportionately fewer small plants; certain industries are not covered. The major industries excluded are: printing, publishing, and allied industries; canning and preserving fruits, vegetables, and sea foods; women's, misses' and children's outerwear; and fertilizers.

(3) Plants are not included in the turn-over computations in months when work stoppages are in progress; the influence of such stoppage is reflected, however, in the employment and payroll figures. Prior to 1943, rates relate to production workers only.

² Preliminary figures.

³ Prior to 1940, miscellaneous separations were included with quits.

NOTE: Information on concepts, methodology, and special studies, etc., is given in a "Technical Note on Labor Turn-Over," October 1949, which is available upon request to the Bureau of Labor Statistics.

TABLE B-2: Monthly Labor Turn-Over Rates (Per 100 Employees) in Selected Groups and Industries 1

Industry group and industry	Separation										Total accession	
	Total		Quit		Discharge		Lay-off		Misc., incl. military			
	Jan. 1951	Dec. 1950	Jan. 1951	Dec. 1950	Jan. 1951	Dec. 1950	Jan. 1951	Dec. 1950	Jan. 1951	Dec. 1950	Jan. 1951	Dec. 1950
<i>Manufacturing</i>												
Durable goods 2	4.8	3.9	2.4	1.8	0.4	0.3	1.2	1.4	0.8	0.4	5.8	3.4
Nondurable goods 3	3.5	2.9	1.9	1.5	.2	.2	.8	1.0	.6	.2	4.0	2.4
Ordnance and accessories	(4)	2.2	(4)	.7	(4)	.2	(4)	1.0	(4)	.3	(4)	1.8
Food and kindred products	4.6	4.9	2.1	1.7	.4	.4	1.5	2.5	.6	.3	4.6	3.8
Meat products	5.8	5.8	2.3	2.2	.6	.7	2.0	2.4	.9	.5	6.3	6.3
Grain-mill products	3.7	2.9	2.3	1.6	.6	.3	.1	.5	.7	.5	4.7	3.2
Bakery products	3.7	4.6	2.4	1.7	.3	.3	.6	2.4	.4	.2	3.5	2.3
Beverages:												
Malt liquors	3.6	3.4	.8	.7	.1	.1	2.4	2.4	.3	.2	3.4	2.8
Tobacco manufactures	4.3	2.1	2.3	1.3	.1	.1	1.1	.6	.8	.1	3.7	1.3
Cigarettes	3.0	1.5	1.2	.6	.1	.1	.8	.5	.9	.3	2.0	.4
Cigars	5.7	2.4	3.2	1.7	.1	.1	1.7	.6	.7	(5)	4.7	1.0
Tobacco and snuff	1.9	2.7	1.2	1.5	.2	.3	(4)	.6	.5	.3	3.8	4.1
Textile-mill products	3.6	2.6	1.8	1.3	.2	.2	.8	.9	.8	.2	3.9	2.1
Yarn and thread mills	3.8	2.7	1.8	1.2	.2	.2	1.0	1.0	.8	.3	4.9	2.3
Broad-woven fabric mills	4.0	2.7	1.9	1.4	.3	.2	.8	.9	1.0	.2	4.4	2.4
Cotton, silk, synthetic fiber	3.7	2.4	2.0	1.5	.3	.2	.5	.5	.9	.2	4.2	2.4
Woolen and worsted	5.7	3.1	1.0	.7	.2	.1	3.6	2.1	.9	.2	6.6	2.7
Knitting mills	3.1	2.7	2.0	1.5	.2	.2	.6	.9	.3	.1	2.8	1.5
Full-fashioned hosiery	2.5	1.7	1.7	1.3	.2	.1	.3	.2	.3	.1	2.0	1.2
Seamless hosiery	3.7	2.3	1.9	1.2	.1	.1	1.4	.9	.3	.1	2.5	1.4
Knit underwear	3.3	3.8	2.8	2.0	.1	.4	.3	1.3	.1	.1	5.6	2.0
Dyeing and finishing textiles	2.6	1.8	1.2	.9	.2	.2	.4	.4	.8	.3	4.0	1.9
Carpets, rugs, other floor coverings	2.4	1.6	1.1	.8	.1	.1	.1	.4	1.1	.3	2.0	1.2
Apparel and other finished textile products	3.7	3.2	2.7	2.3	.1	.2	.6	.6	.3	.1	4.1	2.3
Men's and boys' suits and coats	2.3	2.7	1.5	2.0	.1	.1	.5	.5	.2	.1	2.4	3.2
Men's and boys' furnishings and work clothing	4.9	3.5	3.6	2.5	.1	.2	.9	.7	.3	.1	5.0	2.1
Lumber and wood products (except furniture)	6.4	6.1	2.7	2.5	.3	.2	2.7	3.1	.7	.3	5.0	2.6
Logging camps and contractors	17.7	14.0	4.9	3.5	.4	.4	11.9	9.6	.5	.5	10.3	3.7
Sawmills and planing mills	5.5	6.2	2.4	2.5	.2	.2	2.3	3.2	.6	.3	4.6	2.4
Millwork, plywood, and prefabricated structural wood products	4.6	3.0	2.2	1.7	.4	.1	1.1	.9	.9	.3	3.9	2.3
Furniture and fixtures	5.8	5.2	3.5	2.8	.5	.4	.9	1.7	.9	.3	6.1	2.9
Household furniture	6.3	5.7	3.7	2.8	.5	.5	1.2	2.1	.9	.3	5.9	2.5
Other furniture and fixtures	4.7	4.0	3.2	2.8	.4	.3	.3	.6	.8	.3	6.8	3.9
Paper and allied products	3.4	2.4	1.7	1.4	.3	.2	.5	.4	.9	.4	3.7	2.0
Pulp, paper, and paperboard mills	2.7	2.0	1.2	1.0	.2	.2	.3	.4	1.0	.4	2.9	1.7
Paperboard containers and boxes	4.4	3.0	2.6	2.0	.4	.3	.5	.3	.9	.4	5.0	2.3
Chemicals and allied products	2.1	1.6	1.0	.8	.2	.2	.3	.3	.6	.3	3.0	1.7
Industrial inorganic chemicals	2.7	2.2	1.5	1.2	.5	.4	.1	.2	.6	.4	4.0	3.0
Industrial organic chemicals	1.5	1.2	.8	.6	.2	.1	.1	.2	.4	.3	2.6	1.2
Synthetic fibers	1.1	1.3	.4	.5	(5)	.1	.4	.4	.3	.3	.9	1.1
Drugs and medicines	1.4	1.0	.8	.7	.1	.1	.1	(5)	.4	.2	1.8	1.7
Paints, pigments, and fillers	2.5	1.7	1.4	.7	.3	.3	.3	.3	.5	.4	2.8	1.7
Products of petroleum and coal	.9	1.2	.4	.4	(5)	.1	.1	.4	.4	.3	1.3	.8
Petroleum refining	.8	.7	.3	.2	(5)	(5)	.1	.2	.4	.3	.9	.5
Rubber products	3.3	2.6	1.9	1.5	.2	.2	.6	.7	.6	.2	4.3	2.5
Tires and inner tubes	2.5	1.4	1.0	.7	.1	.1	.9	.4	.5	.2	2.6	1.3
Rubber footwear	5.0	3.0	3.5	2.5	.2	.2	.2	.1	1.1	.2	8.3	6.6
Other rubber products	3.6	3.6	2.4	2.1	.4	.2	.3	1.0	.5	.3	5.0	2.8
Leather and leather products	4.2	2.9	2.8	1.9	.3	.2	.6	.7	.5	.1	5.4	3.1
Leather	3.8	2.9	1.5	1.4	.2	.2	1.5	1.1	.6	.2	3.5	2.8
Footwear (except rubber)	4.4	2.7	3.3	1.8	.3	.1	.3	.7	.5	.1	5.4	3.8
Stone, clay, and glass products	3.6	2.7	1.8	1.4	.3	.2	.8	.7	.7	.4	4.2	2.7
Glass and glass products	4.5	3.6	1.5	1.2	.3	.3	1.8	1.5	.9	.6	4.4	2.9
Cement, hydraulic	2.1	2.3	1.1	1.2	.2	.2	.1	.4	.7	.5	2.0	1.3
Structural clay products	3.5	2.7	2.0	1.7	.3	.3	.5	.7	.2	.2	4.6	2.8
Pottery and related products	3.3	2.3	2.0	1.5	.4	.3	.3	.2	.6	.3	4.7	2.7
Primary metal industries	3.5	2.5	1.8	1.4	.4	.3	.5	.4	.8	.4	4.2	3.0
Blast furnaces, steel works, and rolling mills	2.6	1.8	1.3	1.0	.2	.1	.2	.2	.9	.5	2.9	2.1
Iron and steel foundries	5.7	4.0	3.3	2.6	.8	.7	.9	.4	.7	.3	7.3	5.1
Gray-iron foundries	4.8	4.5	2.8	2.8	.7	.7	.7	.7	.6	.3	6.0	3.9
Malleable-iron foundries	5.2	3.6	3.3	2.6	.7	.7	.1	.1	1.1	.2	7.0	5.1
Steel foundries	4.7	3.4	3.5	2.3	.7	.6	.1	.3	.4	.2	7.8	6.9
Primary smelting and refining of non-ferrous metals:												
Primary smelting and refining of copper, lead, and zinc	1.7	1.4	.8	.7	.3	.1	(5)	.3	.6	.3	2.3	1.8
Rolling, drawing, and alloying of non-ferrous metals:												
Rolling, drawing, and alloying of copper	2.4	1.6	1.2	1.0	.1	.2	.4	.2	.7	.2	2.5	1.6
Nonferrous foundries	6.6	4.2	2.4	2.1	.7	.5	2.1	1.3	1.4	.3	5.8	5.1
Other primary metal industries:												
Iron and steel forgings	3.3	2.4	2.0	1.7	.5	.3	.2	.1	.6	.3	4.3	3.6

See footnotes at end of table.

TABLE B-2: Monthly Labor Turn-Over Rates (Per 100 Employees) in Selected Groups and Industries¹—Continued

Industry group and industry	Separation										Total accession	
	Total		Quit		Discharge		Lay-off		Misc., incl. military		Jan. 1951	Dec. 1950
	Jan. 1951	Dec. 1950	Jan. 1951	Dec. 1950	Jan. 1951	Dec. 1950	Jan. 1941	Dec. 1950	Jan. 1951	Dec. 1950		
<i>Manufacturing—Continued</i>												
Fabricated metal products (except ordnance, machinery, and transportation equipment).....	4.6	3.7	2.4	1.6	0.4	0.3	1.1	1.4	0.7	0.4	5.3	3.3
Cutlery, hand tools, and hardware.....	4.1	2.9	2.4	1.7	.4	.3	.7	.6	.6	.3	4.6	3.2
Cutlery and edge tools.....	2.7	1.8	1.9	1.0	.3	.2	.1	.4	.4	.2	3.5	1.4
Hand tools.....	4.0	2.4	2.2	1.2	.4	.2	.5	.8	.9	.2	3.8	3.1
Hardware.....	4.7	3.6	2.7	2.2	.4	.5	1.0	.6	.6	.3	5.3	3.7
Heating apparatus (except electric) and plumbers' supplies.....	5.1	3.5	2.6	1.8	.5	.4	1.3	1.0	.7	.4	5.1	2.3
Sanitary ware and plumbers' supplies.....	4.6	2.8	2.9	1.9	.6	.4	.4	.1	.7	.4	4.3	2.8
Oil burners, nonelectric heating and cooking apparatus, not elsewhere classified.....	5.5	4.0	2.3	1.6	.4	.5	2.0	1.6	.8	.3	5.8	1.7
Fabricated structural metal products.....	4.7	3.6	2.3	1.7	.4	.4	1.3	1.1	.7	.4	5.3	3.7
Metal stamping, coating, and engraving.....	5.0	5.3	2.7	1.7	.3	.3	1.3	2.9	.7	.4	7.0	3.7
Machinery (except electrical).....	3.6	2.5	2.1	1.5	.5	.4	.3	.3	.7	.3	6.0	3.7
Engines and turbines.....	3.6	3.2	2.2	1.5	.6	.5	.1	.8	.7	.4	6.4	3.6
Agricultural machinery and tractors.....	(⁴)	2.7	(⁴)	1.7	(⁴)	.3	(⁴)	.2	(⁴)	.5	(⁴)	3.7
Construction and mining machinery.....	3.7	2.3	2.3	1.5	.7	.4	.1	.1	.6	.3	6.4	3.8
Metalworking machinery.....	4.4	2.7	2.7	1.8	.7	.5	.3	.2	.7	.2	8.5	5.0
Machine tools.....	4.7	2.8	2.9	1.9	.8	.6	.1	.1	.9	.2	9.7	5.5
Metalworking machinery (except machine tools).....	3.0	2.0	2.1	1.4	.3	.3	.1	(⁵)	.5	.3	5.1	2.6
Machine-tool accessories.....	4.9	3.6	2.6	1.9	.8	.6	1.1	.8	.4	.3	7.9	6.1
Special-industry machinery metalworking machinery.....	3.5	2.0	2.0	1.3	.5	.3	.5	.2	.5	.2	5.3	3.3
General industrial machinery.....	3.5	2.7	2.0	1.7	.6	.5	.3	.2	.6	.3	5.6	4.1
Office and store machines and devices.....	2.3	1.5	1.3	1.1	.2	.2	.1	.1	.7	.1	3.8	2.1
Service-industry and household machines.....	3.3	2.5	1.3	1.1	.4	.2	.8	.5	.8	.7	5.4	2.8
Miscellaneous machinery parts.....	3.3	2.3	1.9	1.3	.5	.4	.2	.3	.7	.3	5.5	3.3
Electrical machinery.....	4.9	3.3	2.3	1.7	.5	.3	1.3	1.0	.8	.3	5.3	2.7
Electrical generating, transmission, distribution, and industrial apparatus.....	3.7	2.3	1.9	1.3	.3	.2	1.0	.4	.5	.4	4.2	2.4
Communication equipment.....	5.8	4.6	2.5	2.2	.5	.3	1.9	1.8	.9	.3	6.3	2.9
Radios, phonographs, television sets, and equipment.....	6.8	6.1	2.8	2.5	.7	.5	2.2	2.8	1.1	.3	7.1	2.9
Telephone and telegraph equipment.....	1.6	1.7	1.1	1.1	.1	.1	(⁵)	.2	.4	.3	2.3	1.5
Electrical appliances, lamps, and miscellaneous products.....	3.8	2.9	2.0	1.7	.2	.2	.9	.7	.7	.3	3.6	3.0
Transportation equipment.....	6.0	6.1	2.9	2.0	.3	.3	1.9	3.4	.9	.4	9.2	5.3
Automobiles.....	6.3	6.8	3.2	2.0	.3	.3	1.9	4.1	.9	.4	7.3	3.7
Aircraft and parts.....	3.7	2.6	2.4	1.8	.4	.3	.1	.1	.8	.4	10.8	7.0
Aircraft.....	4.2	2.7	2.8	1.9	.4	.3	.1	.1	.9	.4	11.8	7.4
Aircraft engines and parts.....	2.4	1.9	1.5	1.4	.4	.3	(⁵)	(⁵)	.5	.2	8.8	6.4
Aircraft propellers and parts.....	1.8	1.4	.7	1.1	.1	.1	(⁵)	(⁵)	1.0	.2	3.3	3.5
Other aircraft parts and equipment.....	3.0	2.3	1.7	1.5	.4	.5	.1	(⁵)	.8	.3	8.0	6.3
Ship and boat building and repairing.....	(⁴)	13.4	(⁴)	3.2	(⁴)	.8	(⁴)	9.1	(⁴)	.3	(⁴)	14.8
Railroad equipment.....	5.8	4.5	1.4	.9	.1	.1	3.4	3.2	.9	.3	6.2	5.0
Locomotives and parts.....	2.7	2.2	1.2	1.1	.1	.1	.7	.6	.7	.4	4.9	4.4
Railroad and street cars.....	9.4	6.9	1.7	.8	.1	.1	6.6	5.8	1.0	.2	7.9	5.7
Other transportation equipment.....	4.7	4.0	.8	1.1	.2	(⁵)	3.3	2.7	.4	.2	4.1	1.4
Instruments and related products.....	3.5	1.9	1.8	1.1	.2	.3	1.0	.2	.5	.3	4.0	3.0
Photographic apparatus.....	(⁴)	1.0	(⁴)	.5	(⁴)	(⁵)	(⁴)	.2	(⁴)	.3	(⁴)	2.0
Watches and clocks.....	6.2	2.3	2.6	1.2	.1	.1	2.6	.6	.9	.4	3.7	1.5
Professional and scientific instruments.....	3.2	2.2	1.8	1.3	.3	.5	.6	.1	.5	.3	4.1	3.8
Miscellaneous manufacturing industries.....	5.7	4.1	3.1	1.9	.3	.3	1.5	1.6	.8	.3	5.6	2.9
Jewelry, silverware, and plated ware.....	3.8	3.2	2.4	1.7	.2	.2	.5	1.1	.7	.2	4.2	1.3
<i>Nonmanufacturing</i>												
Metal mining.....	3.7	4.4	2.5	2.7	.4	.7	.1	.5	.7	.5	4.7	5.0
Iron.....	1.8	2.4	.8	1.0	.1	.1	.1	.7	.8	.6	2.6	1.9
Copper.....	4.5	4.3	3.3	3.3	.3	.4	.1	(⁵)	.8	.6	5.4	5.8
Lead and zinc.....	3.9	3.3	2.3	2.3	.4	.3	.2	.5	.8	.2	4.2	4.2
Anthracite mining.....	1.8	1.8	1.2	1.2	.1	(⁵)	.2	.4	.3	.2	2.2	1.4
Bituminous-coal mining.....	2.3	1.9	1.5	1.2	.1	.1	.3	.4	.4	.2	2.4	1.5
Communication:												
Telephone.....	(⁴)	1.3	(⁴)	1.0	(⁴)	(⁵)	(⁴)	.1	(⁴)	.2	(⁴)	1.1
Telegraph.....	(⁴)	1.6	(⁴)	1.0	(⁴)	(⁵)	(⁴)	.3	(⁴)	.3	(⁴)	1.4

¹ See footnote 1, table B-1. Data for the current month are subject to revision without notation; revised figures for earlier months will be indicated by footnotes.

² See footnote 2, table A-2.

³ See footnote 3, table A-2. Printing, publishing, and allied industries are excluded.

⁴ Not available.

⁵ Less than 0.05.

C: Earnings and Hours

TABLE C-1: Hours and Gross Earnings of Production Workers or Nonsupervisory Employees ¹

Year and month	Mining																	
	Metal									Coal								
	Total: Metal			Iron			Copper			Lead and zinc			Anthracite			Bituminous		
	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings
1948: Average	\$60.80	42.4	\$1.434	\$58.32	41.3	\$1.412	\$65.81	45.2	\$1.456	\$61.37	41.3	\$1.486	\$66.57	36.8	\$1.809	\$72.12	38.0	\$1.898
1949: Average	61.55	40.9	1.505	59.06	39.8	1.484	63.96	42.3	1.512	64.79	41.4	1.565	56.78	30.2	1.880	63.28	32.6	1.941
1950: January	63.71	42.0	1.517	58.68	39.7	1.478	71.96	45.4	1.585	65.18	42.3	1.541	44.60	23.9	1.866	47.36	24.5	1.933
February	62.81	41.9	1.499	59.62	40.5	1.472	68.49	44.3	1.546	63.38	41.7	1.520	40.23	20.6	1.953	49.83	25.4	1.962
March	61.81	41.1	1.504	57.57	38.9	1.480	68.58	44.3	1.548	63.45	41.8	1.518	80.01	41.5	1.928	78.75	39.2	2.009
April	62.90	41.6	1.512	59.62	40.2	1.483	68.13	43.9	1.552	63.55	41.4	1.535	57.25	29.0	1.974	72.79	36.0	2.022
May	63.11	41.6	1.517	59.33	39.9	1.487	69.42	44.5	1.560	63.71	41.4	1.539	68.81	34.7	1.983	68.37	34.1	2.005
June	63.40	41.6	1.524	60.75	40.8	1.489	69.55	44.3	1.570	63.38	40.5	1.565	64.94	32.6	1.992	69.92	34.7	2.015
July	63.17	41.1	1.537	61.51	40.9	1.504	67.95	42.9	1.584	62.96	39.7	1.586	68.59	34.8	1.971	69.68	34.6	2.014
August	64.48	41.9	1.539	60.97	40.7	1.498	71.53	44.9	1.593	64.73	41.1	1.575	65.77	33.2	1.981	71.04	35.5	2.001
September	66.38	42.2	1.573	62.80	41.1	1.528	72.46	45.2	1.603	68.06	41.2	1.652	68.45	34.5	1.984	71.92	35.5	2.026
October	69.84	43.9	1.591	66.53	43.4	1.533	75.68	46.4	1.631	71.95	42.8	1.681	75.59	37.2	2.032	72.99	36.1	2.022
November	69.92	43.0	1.626	63.77	41.6	1.533	78.78	46.1	1.709	73.01	42.3	1.726	60.85	31.0	1.963	73.27	36.4	2.013
December	73.41	43.8	1.676	70.94	42.3	1.677	79.48	47.2	1.684	74.99	42.9	1.748	64.68	32.5	1.990	77.30	38.4	2.013
1951: January	73.92	43.2	1.711	68.72	40.4	1.701	82.68	47.3	1.748	75.42	43.0	1.754	71.28	35.8	1.991	76.96	37.8	2.036
	Mining—Continued									Contract construction								
	Crude petroleum and natural gas production			Nonmetallic mining and quarrying			Total: Contract construction			Nonbuilding construction								
	Petroleum and natural gas production (except contract services)									Total: Nonbuilding construction			Highway and street			Other nonbuilding construction		
1948: Average	\$66.68	40.0	\$1.667	\$55.31	44.5	\$1.243	\$68.25	38.1	\$1.790	\$66.61	40.6	\$1.639	\$62.41	41.6	\$1.500	\$68.67	40.0	\$1.716
1949: Average	71.48	40.2	1.778	56.38	43.3	1.302	70.81	37.8	1.874	70.44	40.9	1.723	65.65	41.5	1.583	73.66	40.5	1.820
1950: January	76.24	41.8	1.824	53.36	41.4	1.289	68.01	35.2	1.932	65.56	37.4	1.753	58.43	35.5	1.646	69.57	38.5	1.807
February	71.88	40.0	1.797	54.36	41.4	1.313	66.89	34.3	1.950	66.94	37.8	1.771	61.96	37.3	1.661	69.50	38.0	1.892
March	70.88	39.8	1.781	55.37	41.6	1.331	68.59	35.1	1.954	68.34	38.7	1.766	63.68	38.2	1.667	70.76	38.9	1.819
April	74.41	41.2	1.806	58.03	43.6	1.331	70.93	36.6	1.938	71.41	40.9	1.746	66.54	40.7	1.635	74.33	41.0	1.813
May	70.88	40.0	1.772	59.45	44.4	1.339	72.74	37.3	1.950	71.71	40.7	1.762	68.06	41.0	1.660	74.20	40.5	1.832
June	71.08	40.0	1.777	60.39	44.9	1.345	73.76	38.0	1.941	73.75	42.0	1.756	69.86	42.6	1.640	76.84	41.6	1.847
July	75.59	41.6	1.817	60.92	44.6	1.366	74.06	37.9	1.954	73.70	41.5	1.776	69.31	41.5	1.670	77.19	41.5	1.860
August	71.01	40.3	1.762	61.74	45.2	1.366	75.96	38.6	1.968	76.48	42.7	1.791	73.88	44.0	1.679	78.33	41.6	1.883
September	73.47	40.5	1.814	62.51	45.1	1.386	75.89	37.7	2.013	75.86	41.5	1.828	70.84	41.5	1.707	79.72	41.5	1.921
October	77.67	41.4	1.876	64.03	45.8	1.398	77.92	38.5	2.024	77.65	42.5	1.827	73.32	42.8	1.713	80.92	42.3	1.913
November	76.21	40.6	1.877	63.31	44.9	1.410	77.52	38.0	2.040	75.42	40.9	1.844	70.91	41.2	1.721	78.59	40.7	1.931
December	75.42	40.2	1.876	62.19	43.7	1.423	76.86	37.2	2.066	74.73	40.2	1.859	68.49	39.5	1.734	78.56	40.6	1.935
1951: January	77.29	40.7	1.899	62.30	43.6	1.429	77.71	37.2	2.089	74.73	39.6	1.887	65.68	38.1	1.724	79.79	40.4	1.975
	Contract construction—Continued																	
	Building construction																	
	Total: Building construction			General contractors			Total: Special-trade contractors			Plumbing and heating			Painting and decorating			Electrical work		
1948: Average	\$68.85	37.3	\$1.848	\$64.64	36.6	\$1.766	\$73.87	38.0	\$1.946	\$76.83	39.2	\$1.960	\$69.77	36.3	\$1.925	\$83.01	39.8	\$2.084
1949: Average	70.95	36.7	1.935	67.16	36.2	1.855	75.70	37.2	2.034	78.60	38.6	2.037	70.75	35.7	1.982	86.57	39.2	2.211
1950: January	68.76	34.8	1.976	63.58	34.0	1.870	73.49	35.5	2.070	78.32	38.0	2.061	67.49	33.9	1.991	86.88	38.7	2.245
February	67.00	33.7	1.988	61.60	32.8	1.878	71.00	34.3	2.070	75.65	36.9	2.050	67.16	33.8	1.987	87.58	38.7	2.263
March	68.83	34.5	1.995	63.80	33.9	1.882	72.59	34.9	2.080	78.02	37.6	2.075	66.30	33.5	1.979	83.62	37.0	2.260
April	70.70	35.6	1.986	65.98	35.3	1.869	74.49	35.9	2.075	78.78	37.8	2.084	66.61	34.3	1.942	84.85	37.1	2.287
May	72.93	36.5	1.998	67.87	36.1	1.880	76.95	36.8	2.091	81.14	38.4	2.113	69.06	35.0	1.973	86.18	37.8	2.280
June	73.82	37.0	1.995	68.33	36.6	1.867	77.92	37.3	2.089	82.64	39.0	2.119	69.15	35.3	1.959	87.55	38.4	2.280
July	74.02	36.9	2.006	68.77	36.6	1.879	78.16	37.2	2.101	80.45	38.0	2.117	71.62	36.1	1.984	86.60	37.9	2.285
August	75.99	37.6	2.021	70.87	37.2	1.905	79.72	37.8	2.109	81.56	38.6	2.113	73.33	36.3	2.020	89.16	38.7	2.304
September	75.86	36.7	2.067	70.73	36.2	1.954	79.62	37.0	2.152	83.67	38.4	2.179	72.89	35.8	2.036	92.38	38.7	2.387
October	77.87	37.4	2.082	72.71	37.0	1.965	81.95	37.8	2.168	84.65	38.9	2.176	76.62	36.8	2.082	94.04	39.2	2.399
November	78.07	37.3	2.093	72.94	36.8	1.982	82.00	37.7	2.175	85.08	39.1	2.176	74.93	36.2	2.070	95.01	39.1	2.430
December	77.45	36.6	2.116	71.71	35.8	2.003	81.51	37.1	2.197	85.80	38.7	2.217	73.60	35.4	2.079	96.15	39.6	2.428
1951: January	78.32	36.7	2.134	72.27	36.1	2.002	82.66	37.1	2.228	86.01	38.5	2.234	73.92	35.0	2.112	99.56	40.0	2.489

See footnotes at end of table.

TABLE C-1: Hours and Gross Earnings of Production Workers or Nonsupervisory Employees ¹—Con.

Year and month	Contract construction—Continued																	
	Building construction—Continued																	
	Special-trade contractors—Continued																	
	Other special-trade contractors			Masonry			Plastering and lathing			Carpentry			Roofing and sheet-metal work			Excavation and foundation work		
Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	
1948: Average	\$69.65	36.9	\$1.888	\$69.61	35.4	\$1.969	\$78.52	36.1	\$2.175	\$67.98	37.9	\$1.792	\$62.47	36.5	\$1.710	\$66.44	38.9	\$1.709
1949: Average	71.39	36.1	1.979	68.72	33.8	2.033	80.39	34.9	2.301	67.14	36.6	1.837	62.86	35.7	1.759	69.66	37.8	1.844
1950: January	67.87	33.4	2.032	61.68	30.0	2.056	75.57	32.6	2.318	66.51	35.7	1.863	58.50	32.3	1.811	65.57	34.4	1.906
February	64.12	31.6	2.029	54.29	26.1	2.080	75.44	32.2	2.343	58.66	32.0	1.833	53.64	30.0	1.788	62.62	33.2	1.886
March	67.76	33.1	2.047	58.00	28.1	2.064	81.09	33.9	2.392	63.49	34.3	1.851	57.99	31.9	1.818	67.69	35.7	1.896
April	71.44	35.0	2.041	67.39	32.2	2.093	83.66	34.7	2.411	64.79	36.5	1.775	61.64	34.3	1.797	73.59	39.1	1.882
May	74.46	36.2	2.057	70.98	33.8	2.100	88.86	35.7	2.489	65.58	36.7	1.787	65.05	35.9	1.812	74.10	39.0	1.900
June	75.81	36.8	2.060	74.27	35.1	2.116	90.65	36.1	2.511	67.40	37.3	1.807	65.70	36.6	1.795	74.74	39.4	1.897
July	76.75	36.9	2.080	73.91	34.7	2.130	91.73	36.2	2.534	67.90	37.7	1.801	65.77	36.4	1.807	73.57	38.7	1.901
August	78.57	37.7	2.084	76.50	36.0	2.125	93.11	36.4	2.558	70.50	38.4	1.836	68.50	37.7	1.817	77.26	40.6	1.903
September	76.59	36.3	2.131	71.88	33.2	2.165	92.89	36.6	2.538	71.17	38.2	1.863	65.99	36.2	1.823	75.01	38.0	1.974
October	79.06	37.1	2.137	77.36	35.6	2.173	93.07	36.2	2.571	71.17	37.4	1.903	68.19	36.8	1.853	78.40	38.6	2.031
November	79.07	37.0	2.131	80.53	37.3	2.159	87.49	34.9	2.507	72.80	37.8	1.926	67.64	36.6	1.848	79.97	38.3	2.088
December	77.65	36.1	2.151	70.11	32.7	2.144	90.85	35.6	2.552	72.45	36.7	1.974	66.11	35.6	1.857	81.27	39.3	2.068
1951: January	78.81	36.2	2.177	74.75	34.4	2.173	89.45	35.3	2.534	75.94	37.1	2.047	66.56	35.2	1.891	80.66	39.1	2.063
Manufacturing																		
Total: Manufacturing	Durable goods ²			Nondurable goods ³			Total: Ordnance and accessories			Food and kindred products								
										Total: Food and kindred products			Meat products					
1948: Average	\$54.14	40.1	\$1.350	\$57.11	40.5	\$1.410	\$50.61	39.6	\$1.278	\$57.20	41.6	\$1.375	\$51.87	42.0	\$1.235	\$58.37	43.3	\$1.348
1949: Average	54.92	39.2	1.401	58.03	39.5	1.469	51.41	38.8	1.325	58.76	40.0	1.469	53.58	41.5	1.291	57.44	41.5	1.384
1950: January	56.29	39.7	1.418	59.40	40.0	1.485	52.91	39.4	1.343	60.70	40.2	1.510	54.94	41.4	1.327	60.19	42.9	1.403
February	56.37	39.7	1.420	59.47	40.1	1.483	53.06	39.3	1.350	60.88	40.4	1.507	54.05	40.7	1.328	55.99	40.4	1.386
March	56.53	39.7	1.424	59.74	40.2	1.486	53.04	39.2	1.353	61.31	40.6	1.510	54.42	40.7	1.337	56.14	40.3	1.393
April	56.93	39.7	1.434	61.01	40.7	1.499	52.17	38.5	1.355	61.43	40.6	1.513	54.14	40.4	1.340	55.64	39.8	1.398
May	57.54	39.9	1.442	61.57	40.8	1.509	52.83	38.9	1.358	61.66	40.7	1.515	54.90	41.0	1.339	57.10	40.7	1.403
June	58.85	40.5	1.453	62.86	41.3	1.522	53.92	39.5	1.365	61.90	40.7	1.521	56.01	41.8	1.340	58.11	41.3	1.407
July	59.21	40.5	1.462	63.01	41.1	1.533	54.73	39.8	1.375	64.92	42.6	1.524	56.94	42.3	1.346	59.31	41.8	1.419
August	60.32	41.2	1.464	64.33	41.8	1.539	55.65	40.5	1.374	66.12	42.6	1.552	56.19	41.9	1.341	57.92	40.7	1.423
September	60.64	41.0	1.479	65.14	41.7	1.562	55.30	40.1	1.379	67.41	43.1	1.564	56.36	42.0	1.342	62.59	41.7	1.501
October	61.99	41.3	1.501	66.39	42.1	1.577	56.58	40.3	1.404	68.64	43.2	1.589	56.83	41.6	1.366	61.24	40.8	1.501
November	62.23	41.1	1.514	66.34	41.8	1.587	57.19	40.3	1.419	70.53	43.4	1.625	58.07	41.9	1.386	65.49	43.4	1.509
December	63.84	41.4	1.542	68.24	42.2	1.617	58.44	40.5	1.443	68.43	42.5	1.610	59.81	42.3	1.414	69.96	45.4	1.541
1951: January	63.67	41.0	1.553	67.52	41.5	1.627	58.76	40.3	1.458	68.93	41.7	1.653	60.21	41.9	1.437	65.99	43.1	1.531
Manufacturing—Continued																		
Food and kindred products—Continued																		
Meat packing			Sausages and casings			Dairy products			Condensed and evaporated milk			Ice cream and ices			Canning and preserving			
1948: Average	\$59.15	43.4	\$1.363	\$55.51	42.5	\$1.306	\$52.26	45.4	\$1.151	\$54.17	46.3	\$1.170	\$52.33	44.8	\$1.168	\$42.63	38.2	\$1.116
1949: Average	58.02	41.5	1.398	57.44	41.9	1.371	54.61	44.8	1.219	56.13	45.3	1.239	55.00	44.9	1.225	43.77	38.8	1.128
1950: January	61.16	43.1	1.419	57.24	41.6	1.376	55.67	44.5	1.251	56.09	44.8	1.252	55.93	43.9	1.274	45.15	38.2	1.182
February	56.50	40.3	1.402	56.91	41.3	1.378	54.88	43.8	1.253	55.37	44.4	1.247	56.50	44.0	1.284	44.94	37.7	1.192
March	56.92	40.4	1.409	57.31	41.2	1.391	54.63	43.7	1.250	55.57	44.6	1.246	56.44	44.2	1.277	44.79	36.8	1.217
April	56.22	39.7	1.416	57.04	40.6	1.405	54.79	43.9	1.248	56.51	45.5	1.242	56.10	44.0	1.275	44.32	36.3	1.221
May	57.55	40.5	1.421	60.67	43.0	1.411	55.02	44.3	1.242	56.61	45.8	1.236	56.20	44.5	1.263	45.01	37.2	1.210
June	58.65	41.1	1.427	61.39	43.6	1.408	55.85	45.0	1.241	58.02	46.9	1.237	54.99	43.3	1.270	45.94	38.9	1.181
July	60.01	41.7	1.439	62.60	43.9	1.426	57.21	45.3	1.263	58.86	46.2	1.274	57.49	44.6	1.289	47.73	41.4	1.153
August	58.48	40.5	1.444	60.69	42.8	1.418	56.57	45.0	1.257	58.16	46.6	1.248	57.50	44.2	1.301	47.91	40.6	1.180
September	63.77	41.6	1.533	62.45	42.8	1.459	56.81	44.7	1.271	58.59	46.1	1.271	58.43	44.2	1.322	47.18	41.1	1.148
October	62.23	40.7	1.529	60.78	41.4	1.468	56.74	44.5	1.275	57.58	45.7	1.260	58.74	44.1	1.332	49.05	40.5	1.211
November	66.55	43.3	1.537	65.58	43.2	1.518	56.62	44.1	1.284	57.91	45.1	1.284	58.76	43.4	1.354	48.06	38.6	1.245
December	71.57	45.7	1.566	67.15	43.8	1.533	57.64	44.2	1.304	59.20	45.4	1.304	59.92	43.8	1.368	46.71	37.4	1.249
1951: January	67.27	43.4	1.550	66.22	43.0	1.540	59.23	44.1	1.343	61.29	45.3	1.353	60.80	43.9	1.385	49.74	38.5	1.292

See footnotes at end of table.

TABLE C-1: Hours and Gross Earnings of Production Workers or Nonsupervisory Employees ¹-Con.

Year and month	Manufacturing-Continued																	
	Food and kindred products-Continued																	
	Grain-mill products			Flour and other grain-mill products			Prepared feeds			Bakery products			Sugar			Cane-sugar refining		
	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings
1948: Average	\$54.53	44.3	\$1.231	\$57.23	46.3	\$1.236	\$51.01	45.3	\$1.126	\$49.35	42.4	\$1.164	\$52.04	41.8	\$1.245	\$51.74	42.0	\$1.232
1949: Average	56.94	43.8	1.300	58.91	44.7	1.318	54.98	46.2	1.190	51.67	41.7	1.239	56.01	42.4	1.321	56.62	42.1	1.345
1950: January	56.46	42.9	1.316	60.03	44.3	1.355	53.22	44.5	1.196	52.07	41.1	1.267	55.78	39.9	1.398	56.42	40.1	1.407
February	55.48	42.0	1.321	58.02	43.2	1.343	51.37	42.7	1.203	52.96	41.6	1.273	55.44	39.8	1.393	55.36	39.8	1.391
March	56.83	42.6	1.334	58.28	43.3	1.346	54.86	44.6	1.230	52.75	41.5	1.271	55.92	40.2	1.391	56.84	40.6	1.400
April	55.82	42.1	1.321	56.16	42.1	1.334	56.06	45.5	1.232	52.37	41.2	1.271	55.32	39.4	1.404	55.00	39.4	1.396
May	56.35	42.4	1.329	57.36	42.9	1.337	55.72	44.9	1.241	53.12	41.6	1.277	57.59	41.4	1.391	61.11	43.4	1.408
June	58.47	43.9	1.332	58.51	43.5	1.345	57.63	46.7	1.234	53.21	41.9	1.270	59.23	42.4	1.397	62.12	43.9	1.415
July	60.60	44.3	1.368	61.86	44.6	1.387	60.96	47.7	1.278	53.88	41.7	1.292	66.36	45.7	1.452	73.01	49.4	1.478
August	63.65	45.4	1.402	67.35	46.8	1.439	57.62	45.3	1.272	54.34	41.8	1.300	64.64	45.3	1.427	71.43	48.2	1.482
September	61.34	44.0	1.394	64.66	45.5	1.421	59.14	45.7	1.294	53.85	41.2	1.307	63.54	43.7	1.454	69.01	45.7	1.510
October	59.97	43.3	1.385	60.85	43.4	1.402	59.89	46.0	1.302	54.19	41.4	1.309	56.90	41.9	1.358	56.83	39.6	1.435
November	59.78	42.7	1.400	61.42	43.5	1.412	59.00	44.7	1.320	54.47	41.3	1.319	61.10	45.7	1.337	57.29	40.4	1.418
December	62.72	43.8	1.432	65.78	45.4	1.449	60.47	45.4	1.332	55.37	41.6	1.331	64.03	45.9	1.395	68.57	45.5	1.507
1951: January	64.30	44.5	1.445	67.05	45.8	1.464	61.42	45.8	1.341	55.05	41.3	1.333	59.51	40.1	1.484	62.54	42.0	1.489
	Manufacturing-Continued																	
	Food and kindred products-Continued																	
	Beet sugar			Confectionery and related products			Confectionery			Beverages			Bottled soft drinks			Malt liquors		
	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings
1948: Average	\$53.48	41.3	\$1.295	\$44.00	40.0	\$1.100	\$41.46	39.6	\$1.047	\$61.43	41.9	\$1.466	\$46.26	44.1	\$1.049	\$66.40	42.0	\$1.581
1949: Average	56.09	42.3	1.326	45.12	40.0	1.128	42.63	39.8	1.071	64.21	41.0	1.566	48.40	43.8	1.105	69.46	41.1	1.690
1950: January	56.97	38.7	1.472	45.59	40.2	1.134	42.75	39.8	1.074	63.52	39.7	1.600	46.67	42.5	1.098	68.52	39.7	1.726
February	56.42	39.4	1.432	45.26	39.7	1.140	42.60	39.3	1.084	64.52	40.0	1.613	46.98	42.4	1.108	69.32	40.0	1.733
March	54.68	38.7	1.413	45.19	39.4	1.147	42.92	39.2	1.095	65.16	40.1	1.625	46.72	41.9	1.115	70.42	40.1	1.756
April	57.74	39.6	1.458	43.77	37.9	1.155	41.59	37.6	1.106	66.38	40.7	1.631	47.90	42.5	1.127	72.19	40.9	1.765
May	52.25	37.7	1.386	45.36	39.1	1.160	43.56	39.0	1.117	66.71	41.1	1.623	48.64	43.2	1.126	72.82	41.4	1.759
June	54.29	39.2	1.385	46.37	39.6	1.171	44.26	39.4	1.126	68.96	42.0	1.642	51.29	44.1	1.163	74.95	42.2	1.776
July	56.37	38.9	1.449	45.98	38.8	1.185	44.16	38.6	1.144	71.11	42.3	1.681	50.34	43.1	1.168	77.86	42.9	1.815
August	56.01	40.5	1.383	47.99	40.5	1.185	45.82	40.3	1.137	68.39	41.3	1.656	49.78	43.1	1.155	73.25	40.9	1.791
September	58.04	40.9	1.419	49.35	41.3	1.195	47.13	41.2	1.144	67.85	41.2	1.647	49.53	42.7	1.160	72.71	40.8	1.782
October	57.35	42.8	1.340	49.00	41.0	1.195	47.10	41.0	1.151	68.14	41.0	1.662	49.92	43.0	1.161	72.48	40.2	1.803
November	64.07	47.6	1.346	48.15	40.5	1.189	47.10	41.1	1.146	67.81	40.9	1.658	50.30	43.1	1.167	73.02	40.5	1.803
December	61.42	44.7	1.374	47.55	40.3	1.180	47.37	41.7	1.136	68.23	40.3	1.693	50.54	42.9	1.178	73.15	39.5	1.852
1951: January	56.43	38.1	1.481	49.69	40.6	1.224	48.52	41.4	1.172	71.39	41.1	1.737	50.38	42.8	1.177	76.30	40.5	1.884
	Manufacturing-Continued																	
	Food and kindred products-Continued									Tobacco manufactures								
	Distilled, rectified, and blended liquors			Miscellaneous food products			Total: Tobacco manufactures			Cigarettes			Cigars			Tobacco and snuff		
	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings
1948: Average	\$54.92	40.5	\$1.356	\$49.74	42.3	\$1.176	\$36.50	38.1	\$0.958	\$44.51	38.6	\$1.153	\$32.71	37.6	\$0.870	\$37.21	37.7	\$0.987
1949: Average	57.00	39.2	1.454	52.17	41.9	1.245	37.25	37.1	1.004	46.33	37.7	1.229	32.41	36.7	.884	39.10	37.2	1.051
1950: January	59.70	39.8	1.500	53.21	41.8	1.273	39.25	38.0	1.033	49.15	39.1	1.257	33.25	36.5	.911	40.69	37.4	1.088
February	58.67	38.5	1.524	52.65	41.1	1.281	38.48	36.2	1.063	46.96	37.3	1.259	33.87	35.8	.946	40.04	36.3	1.103
March	58.45	39.2	1.491	53.71	41.6	1.291	39.49	36.7	1.076	48.65	38.7	1.257	33.71	35.3	.955	40.92	36.8	1.112
April	57.66	38.8	1.486	53.15	41.2	1.290	38.59	35.5	1.087	48.41	38.0	1.274	31.38	33.0	.951	41.96	37.4	1.122
May	57.47	38.7	1.485	53.16	41.6	1.278	39.67	36.7	1.081	47.99	37.7	1.273	34.49	36.3	.950	40.88	35.7	1.145
June	59.35	39.7	1.495	54.82	42.2	1.299	41.59	38.3	1.086	51.21	40.1	1.277	35.49	37.2	.954	43.31	38.5	1.125
July	59.51	39.2	1.518	56.15	42.8	1.312	42.12	38.4	1.097	52.50	40.6	1.293	35.11	36.8	.954	44.54	38.9	1.145
August	66.00	41.8	1.579	56.50	43.0	1.314	43.37	39.5	1.098	57.94	43.6	1.329	36.11	37.5	.963	45.77	39.7	1.153
September	65.18	42.0	1.552	56.16	43.0	1.306	42.02	39.2	1.072	50.36	39.5	1.275	37.57	38.1	.986	44.23	39.0	1.134
October	64.95	40.8	1.592	56.06	42.6	1.316	41.21	38.3	1.076	45.10	35.4	1.274	39.35	39.0	1.009	44.24	38.5	1.149
November	65.31	41.6	1.570	56.44	42.5	1.328	42.45	37.8	1.123	50.07	37.9	1.321	39.50	38.5	1.026	42.97	36.6	1.174
December	66.75	41.9	1.593	57.08	42.5	1.343	43.57	38.8	1.123	54.03	40.2	1.344	38.17	37.9	1.067	44.81	38.1	1.176
1951: January	73.72	43.7	1.687	58.88	42.7	1.379	43.85	38.5	1.139	55.12	40.5	1.361	37.80	37.2	1.016	44.66	37.5	1.191

See footnotes at end of table.

TABLE C-1: Hours and Gross Earnings of Production Workers or Nonsupervisory Employees ¹—Con.

Year and month	Manufacturing—Continued																	
	Tobacco manufac- tures—Con.			Textile-mill products														
	Tobacco stemming and redrying			Total: Textile-mill products			Yarn and thread mills			Yarn mills			Broad-woven fabric mills			Cotton, silk, syn- thetic fiber		
	Avg. wkly. earn- ings	Avg. wkly. hours	Avg. hrly. earn- ings	Avg. wkly. earn- ings	Avg. wkly. hours	Avg. hrly. earn- ings	Avg. wkly. earn- ings	Avg. wkly. hours	Avg. hrly. earn- ings	Avg. wkly. earn- ings	Avg. wkly. hours	Avg. hrly. earn- ings	Avg. wkly. earn- ings	Avg. wkly. hours	Avg. hrly. earn- ings	Avg. wkly. earn- ings	Avg. wkly. hours	Avg. hrly. earn- ings
1948: Average	\$34.24	40.0	\$0.856	\$45.59	39.2	\$1.163	\$41.49	38.1	\$1.089	\$41.42	37.9	\$1.093	\$46.13	39.6	\$1.165	\$44.36	39.4	\$1.126
1949: Average	34.20	38.3	.893	44.83	37.7	1.189	40.51	36.4	1.113	40.55	36.3	1.117	44.48	37.5	1.186	42.89	37.2	1.153
1950: January	37.58	41.8	.899	47.36	39.4	1.202	43.67	39.2	1.114	43.60	39.0	1.118	48.16	40.0	1.204	47.04	40.1	1.173
February	35.34	35.3	1.001	47.88	39.6	1.209	43.84	39.0	1.124	43.88	38.9	1.128	48.16	40.1	1.201	47.07	40.2	1.171
March	39.58	38.5	1.028	47.39	39.2	1.209	42.67	38.0	1.123	42.60	37.8	1.127	47.72	39.8	1.199	46.88	40.0	1.172
April	39.14	38.0	1.050	45.51	37.8	1.204	40.80	36.4	1.121	40.65	36.1	1.126	45.81	38.4	1.193	44.66	38.4	1.163
May	37.19	36.5	1.019	45.63	37.9	1.204	41.62	36.9	1.121	41.77	36.8	1.135	45.82	38.5	1.190	44.35	38.3	1.168
June	40.11	38.6	1.039	46.75	38.7	1.208	42.68	37.8	1.129	42.70	37.7	1.135	46.92	39.2	1.197	45.24	38.9	1.163
July	40.16	39.1	1.027	47.27	39.0	1.212	43.24	38.2	1.132	43.36	38.1	1.138	47.52	39.5	1.203	45.90	39.3	1.168
August	40.16	39.1	.925	49.33	40.5	1.218	44.96	39.4	1.141	45.34	39.6	1.145	49.29	40.8	1.208	47.86	40.7	1.176
September	35.24	38.1	1.019	45.63	37.9	1.204	41.62	36.9	1.121	41.77	36.8	1.135	45.82	38.5	1.190	44.35	38.3	1.168
October	37.37	41.2	.907	52.58	40.6	1.295	49.33	40.2	1.227	49.16	40.0	1.229	53.17	40.9	1.300	52.29	41.3	1.266
November	34.53	35.6	.970	53.19	40.7	1.307	49.57	40.3	1.230	49.61	40.2	1.234	53.68	41.1	1.306	52.62	41.4	1.271
December	38.52	40.0	.963	53.49	40.8	1.311	49.73	40.5	1.228	49.69	40.4	1.230	54.28	41.4	1.311	53.38	41.7	1.280
1951: January	39.22	40.1	.978	54.14	40.8	1.327	49.61	40.5	1.225	49.29	40.2	1.226	54.57	41.5	1.315	53.50	41.8	1.280
Manufacturing—Continued																		
Textile-mill products—Continued																		
Cotton, silk, synthetic fiber—Continued						Woolen and worsted			Knitting mills			Full-fashioned hosiery						
North			South									United States			North			
1948: Average						\$52.45	40.1	\$1.308	\$41.14	37.5	\$1.097	\$52.85	38.8	\$1.362				
1949: Average	\$46.36	38.0	\$1.220	\$41.92	37.0	\$1.133	51.19	38.9	1.316	41.47	36.8	1.127	52.09	37.5	1.389	\$53.98	36.9	\$1.463
1950: January	49.94	40.5	1.233	46.04	39.9	1.154	52.92	39.7	1.333	41.73	36.8	1.134	51.53	36.6	1.408	53.10	36.0	1.475
February	50.06	40.6	1.233	46.20	40.1	1.152	52.51	39.6	1.326	43.38	37.2	1.166	53.16	37.2	1.429	55.65	37.2	1.496
March	49.57	40.2	1.233	46.00	39.9	1.153	51.00	38.9	1.311	43.55	37.0	1.177	54.25	38.1	1.424	55.80	37.5	1.488
April	47.98	39.1	1.227	43.70	38.2	1.144	50.94	38.8	1.313	40.60	35.0	1.160	49.02	35.6	1.377	48.82	35.4	1.379
May	47.74	39.0	1.224	43.40	38.1	1.139	51.94	39.5	1.315	40.67	35.0	1.162	49.76	36.4	1.367	49.90	36.4	1.371
June	48.27	39.4	1.225	44.31	38.7	1.145	53.36	40.3	1.324	41.85	36.2	1.156	50.62	37.3	1.357	50.42	37.4	1.348
July	49.03	39.8	1.232	45.08	39.2	1.150	53.51	40.2	1.331	42.77	37.0	1.156	52.06	38.0	1.370	50.73	37.3	1.360
August	50.80	41.0	1.239	46.97	40.6	1.157	54.21	40.7	1.332	45.67	39.2	1.165	54.94	39.7	1.384	55.06	39.7	1.387
September	51.58	41.1	1.255	47.83	41.2	1.161	54.81	40.9	1.340	45.63	38.9	1.173	54.35	39.1	1.390	54.12	39.3	1.377
October	55.94	41.5	1.348	51.25	41.3	1.241	56.30	39.1	1.440	47.67	39.2	1.216	57.87	39.5	1.465	58.52	39.3	1.489
November	56.16	41.6	1.350	51.50	41.3	1.247	58.08	40.0	1.452	47.91	38.7	1.238	58.73	39.1	1.502	60.29	39.1	1.542
December	56.23	41.5	1.355	52.38	41.7	1.256	58.32	40.0	1.458	47.29	38.2	1.238	57.41	38.4	1.495	58.14	37.9	1.534
1951: January	(?)	(?)	(?)	(?)	(?)	(?)	58.40	40.0	1.460	48.20	38.1	1.265	59.60	38.4	1.552	(?)	(?)	(?)
Manufacturing—Continued																		
Textile-mill products—Continued																		
Full-fashioned hosiery—Continued			Seamless hosiery						Knit outerwear			Knit underwear						
South			United States			North			South									
1948: Average			\$30.27	35.2	\$0.860						\$39.75	38.0	\$1.046	\$37.40	37.7	\$0.992		
1949: Average	\$50.31	38.2	\$1.317	31.45	35.5	.886	\$35.06	37.7	\$0.930	\$30.78	35.1	\$0.877	40.96	38.1	1.075	36.34	36.2	1.004
1950: January	50.18	37.2	1.349	32.92	36.3	.907	35.78	37.9	.944	32.40	36.0	.900	41.47	37.8	1.097	37.29	36.7	1.016
February	51.14	37.3	1.371	34.50	36.2	.953	36.88	38.1	.968	34.11	35.9	.950	42.74	38.3	1.116	38.42	37.3	1.030
March	53.02	38.7	1.370	33.29	34.5	.965	36.47	37.4	.975	32.65	33.9	.963	43.80	38.9	1.126	38.40	37.1	1.035
April	49.09	35.7	1.375	31.78	32.8	.969	35.90	36.6	.981	31.01	32.1	.966	43.05	38.2	1.127	35.71	34.5	1.035
May	49.61	36.4	1.363	31.17	32.2	.968	36.47	37.1	.983	30.11	31.2	.965	42.75	37.9	1.128	35.26	34.0	1.037
June	50.82	37.2	1.366	33.13	34.3	.966	36.83	37.5	.982	32.42	33.7	.962	43.42	38.7	1.122	36.30	35.0	1.037
July	53.19	38.6	1.378	33.36	35.0	.953	35.88	36.8	.975	32.93	34.7	.949	42.14	37.9	1.112	38.31	36.8	1.041
August	54.83	39.7	1.381	37.11	38.1	.974	39.42	39.5	.998	36.63	37.8	.969	43.90	39.3	1.117	41.17	39.4	1.045
September	54.68	39.0	1.402	36.98	37.5	.986	39.62	39.0	1.016	36.46	37.2	.980	42.75	38.0	1.125	42.63	40.1	1.063
October	57.18	39.6	1.444	38.08	37.7	1.010	40.35	39.1	1.032	37.59	37.4	1.005	46.43	40.2	1.155	43.43	39.7	1.094
November	57.47	39.2	1.466	38.31	37.6	1.019	41.59	39.5	1.053	37.65	37.2	1.012	46.10	39.4	1.170	43.06	39.0	1.104
December	56.87	38.9	1.462	37.92	37.1	1.022	41.21	39.1	1.054	37.25	36.7	1.015	45.57	38.2	1.193	43.10	38.9	1.108
1951: January	(?)	(?)	(?)	38.15	37.0	1.031	(?)	(?)	(?)	(?)	(?)	(?)	47.50	39.0	1.218	43.27	38.5	1.124

See footnotes at end of table.

TABLE C-1: Hours and Gross Earnings of Production Workers or Nonsupervisory Employees ¹-Con.

Year and month	Manufacturing—Continued																	
	Textile-mill products—Continued															Apparel and other finished textile products		
	Dyeing and finishing textiles			Carpets, rugs, other floor coverings			Wool carpets, rugs, and carpet yarn			Other textile-mill products			Fur-felt hats and hat bodies			Total: Apparel and other finished textile products		
	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings
1948: Average	\$51.00	41.0	\$1.244	\$58.13	42.0	\$1.384	\$58.09	41.7	\$1.393	\$47.96	39.7	\$1.208	\$49.17	36.5	\$1.347	\$42.79	36.2	\$1.182
1949: Average	51.50	40.3	1.278	56.80	39.5	1.438	56.23	38.7	1.453	47.89	38.9	1.231	49.21	35.3	1.394	41.89	35.8	1.170
1950: January	52.03	40.3	1.291	60.44	41.4	1.460	61.41	41.3	1.487	49.80	40.0	1.245	53.44	37.5	1.425	42.70	36.0	1.186
February	53.37	41.5	1.286	60.80	41.5	1.465	61.62	41.3	1.492	50.91	40.6	1.254	53.03	37.4	1.418	44.48	36.7	1.212
March	52.42	40.7	1.288	60.99	41.6	1.466	61.81	41.4	1.493	49.75	39.8	1.250	44.84	32.9	1.363	43.50	36.4	1.195
April	50.89	39.6	1.285	59.15	40.4	1.464	60.48	40.4	1.497	49.29	39.4	1.251	40.02	29.0	1.380	40.80	35.2	1.159
May	49.25	38.3	1.286	60.61	41.2	1.471	61.68	41.2	1.497	49.95	39.8	1.255	48.72	34.6	1.400	41.27	35.7	1.156
June	51.18	39.8	1.286	61.17	41.5	1.474	61.99	41.3	1.501	51.44	40.5	1.270	52.69	37.0	1.424	41.89	35.8	1.170
July	50.84	39.5	1.287	59.86	40.5	1.478	60.07	40.1	1.498	51.92	40.5	1.282	52.19	36.7	1.422	43.22	36.2	1.194
August	56.03	42.9	1.306	61.44	41.4	1.484	61.46	40.7	1.510	53.16	41.4	1.284	54.44	38.1	1.429	46.06	37.6	1.225
September	55.76	42.6	1.309	62.94	41.6	1.513	62.19	40.7	1.528	53.37	40.9	1.305	50.87	35.8	1.421	43.09	35.7	1.207
October	56.26	41.4	1.359	66.46	42.6	1.560	66.36	42.0	1.580	54.77	40.9	1.339	50.48	35.5	1.422	45.51	37.3	1.220
November	58.19	41.8	1.392	66.82	42.4	1.576	66.63	41.8	1.594	55.88	41.3	1.353	51.98	36.1	1.440	44.50	36.9	1.206
December	58.66	41.9	1.400	67.07	42.1	1.593	66.46	41.2	1.613	56.64	41.8	1.355	59.13	39.5	1.497	45.93	36.6	1.255
1951: January	59.05	41.7	1.416	66.63	41.8	1.594	66.86	41.3	1.619	56.78	41.6	1.365	60.56	40.0	1.514	47.45	36.9	1.286

Year and month	Manufacturing—Continued																	
	Apparel and other finished textile products—Continued																	
	Men's and boys' suits and coats		Men's and boys' furnishings and work clothing			Shirts, collars, and nightwear		Separate trousers		Work shirts			Women's outerwear					
	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings
1948: Average	\$50.11	36.6	\$1.369	\$33.20	36.2	\$0.917	\$33.50	26.1	\$0.928	\$35.31	35.7	\$0.989	\$26.49	35.7	\$0.742	\$51.49	35.1	\$1.467
1949: Average	46.67	34.7	1.345	33.30	36.2	.920	33.37	26.0	.927	34.91	35.7	.978	27.44	35.5	.773	49.69	34.7	1.432
1950: January	47.72	35.4	1.348	33.63	36.2	.929	33.43	26.6	.939	36.47	36.8	.991	27.80	35.6	.781	50.86	35.0	1.453
February	49.88	37.0	1.348	35.64	36.4	.979	35.19	26.2	.972	39.26	37.9	1.036	30.55	35.4	.863	52.63	35.9	1.466
March	50.81	37.5	1.355	35.62	36.2	.984	35.40	26.2	.978	39.77	38.2	1.041	30.43	35.3	.862	49.67	35.4	1.403
April	47.46	35.5	1.337	35.00	35.5	.986	35.02	26.7	.981	39.33	38.0	1.035	29.75	34.0	.875	46.06	34.5	1.335
May	48.92	36.7	1.333	35.29	35.9	.983	34.81	26.7	.975	39.81	38.1	1.045	31.18	35.8	.871	45.57	34.6	1.317
June	48.99	36.7	1.335	35.55	36.2	.982	34.82	26.6	.978	39.34	37.9	1.038	30.66	35.4	.866	45.87	33.8	1.357
July	49.22	36.9	1.334	35.34	36.1	.979	34.55	26.4	.976	38.52	37.4	1.030	31.52	36.1	.873	49.62	34.7	1.430
August	51.08	37.7	1.355	37.43	38.0	.985	36.71	27.5	.979	40.08	38.5	1.041	33.00	37.8	.873	54.01	36.2	1.492
September	47.75	35.4	1.349	37.18	37.4	.994	37.20	27.5	.992	38.45	36.9	1.042	33.03	37.2	.888	46.43	32.2	1.442
October	51.77	37.9	1.366	38.38	38.3	1.002	38.02	28.4	.990	40.91	38.7	1.057	32.95	36.9	.893	50.94	34.7	1.468
November	52.57	37.9	1.387	38.53	37.7	1.022	39.35	28.2	1.030	40.32	38.0	1.061	32.18	35.6	.904	48.37	34.6	1.398
December	55.28	37.5	1.474	38.58	37.1	1.040	39.38	27.4	1.053	40.59	37.1	1.094	33.12	36.0	.920	51.96	35.2	1.476
1951: January	55.09	37.1	1.485	38.99	37.1	1.051	38.90	26.7	1.060	42.22	37.7	1.120	33.52	36.4	.921	55.27	36.1	1.531

Year and month	Manufacturing—Continued																	
	Apparel and other finished textile products—Continued																	
	Women's dresses			Household apparel			Women's suits, coats, and skirts			Women's and children's undergarments			Underwear and nightwear, except corsets			Millinery		
	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings
1948: Average	\$48.72	34.8	\$1.400	\$31.59	36.1	\$0.875	\$70.60	35.0	\$2.017	\$35.32	36.6	\$0.965	\$34.12	36.3	\$0.940	\$50.22	34.8	\$1.443
1949: Average	47.20	34.4	1.372	32.23	36.5	.883	66.38	33.8	1.964	35.79	36.6	.978	34.08	36.1	.944	53.55	35.3	1.517
1950: January	48.30	34.9	1.384	31.38	35.1	.894	66.97	34.7	1.930	36.58	36.8	.994	34.78	36.5	.953	55.11	36.4	1.514
February	48.89	35.4	1.381	34.95	37.1	.942	69.83	35.5	1.967	37.52	37.0	1.014	36.03	36.5	.987	64.36	40.2	1.601
March	49.37	35.8	1.379	35.53	37.4	.950	60.70	32.6	1.862	37.87	36.8	1.029	35.68	36.0	.991	62.56	39.2	1.596
April	49.44	35.7	1.385	34.99	36.6	.956	51.19	29.1	1.759	36.22	35.2	1.029	34.09	34.3	.994	44.91	30.7	1.463
May	48.71	35.3	1.380	35.31	36.4	.970	50.13	29.7	1.688	36.15	35.2	1.027	33.69	34.1	.988	46.06	31.7	1.453
June	45.69	34.1	1.340	32.92	33.7	.977	58.41	33.9	1.723	36.43	35.4	1.029	34.25	34.6	.990	49.72	33.1	1.502
July	45.53	34.7	1.312	32.27	33.2	.972	66.46	35.5	1.872	37.13	36.3	1.023	35.60	36.0	.989	50.62	33.7	1.502
August	50.23	35.7	1.407	34.64	36.2	.957	73.26	37.0	1.980	40.04	38.5	1.040	38.24	38.2	1.001	62.03	38.8	1.600
September	44.37	31.9	1.391	35.28	36.6	.964	57.91	30.1	1.924	39.95	37.8	1.057	38.35	37.6	1.020	53.56	33.9	1.580
October	47.66	33.8	1.410	36.43	37.4	.974	66.25	33.8	1.960	41.76	39.1	1.068	40.16	38.8	1.035	53.27	35.0	1.522
November	47.37	34.2	1.385	36.64	37.5	.977	60.12	32.1	1.873	40.96	38.1	1.075	39.25	37.6	1.044	47.53	31.6	1.504
December	49.81	35.2	1.415	35.41	35.8	.989	67.11	34.1	1.968	39.24	36.4	1.078	36.96	35.4	1.044	51.93	34.6	1.501
1951: January	52.49	36.2	1.450	36.70	36.3	1.011	72.42	35.5	2.040	40.44	36.6	1.105	37.10	35.1	1.057	60.48	38.4	1.575

See footnotes at end of table.

TABLE C-1: Hours and Gross Earnings of Production Workers or Nonsupervisory Employees¹—Con.

Year and month	Manufacturing—Continued																		
	Apparel and other finished textile products—Continued															Lumber and wood products (except furniture)			
	Children's outerwear			Fur goods and miscellaneous apparel			Other fabricated textile products			Curtains and draperies			Textile bags			Total: Lumber and wood products (except furniture)			
	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	
1948: Average	\$36.72	36.5	\$1.006	\$42.21	36.7	\$1.150	\$38.49	38.0	\$1.013								\$51.38	41.5	\$1.238
1949: Average	37.06	36.3	1.021	42.05	36.0	1.168	39.74	38.1	1.043								51.72	40.6	1.274
1950: January	38.25	36.5	1.048	40.23	35.6	1.130	40.99	38.2	1.073								48.02	39.2	1.225
February	40.28	37.3	1.080	40.50	36.1	1.122	40.84	38.1	1.072								50.55	39.8	1.270
March	38.76	36.5	1.062	40.76	36.1	1.129	40.32	37.4	1.078								52.24	40.4	1.293
April	35.97	35.3	1.019	39.33	34.9	1.127	39.81	37.1	1.073								53.36	40.7	1.311
May	37.46	36.4	1.029	41.70	35.7	1.168	40.77	37.4	1.090								54.38	40.7	1.336
June	38.08	36.3	1.049	42.59	35.7	1.193	42.21	38.3	1.102								56.28	41.6	1.353
July	39.13	36.6	1.069	43.86	36.4	1.205	42.61	38.7	1.101								56.27	41.1	1.359
August	40.92	37.2	1.100	45.84	38.2	1.200	43.43	39.3	1.105								58.30	42.0	1.388
September	38.12	35.3	1.080	44.59	37.1	1.202	43.88	38.8	1.131	\$37.33	36.6	\$1.020	\$43.93	39.4	\$1.115		57.84	41.2	1.404
October	40.48	37.0	1.094	47.91	38.7	1.238	43.45	39.0	1.114	39.82	38.4	1.037	44.19	39.6	1.116		58.83	41.9	1.404
November	39.29	37.0	1.062	46.05	37.5	1.228	42.86	38.1	1.125	38.31	36.8	1.041	43.30	38.9	1.113		57.03	41.0	1.391
December	39.78	36.1	1.102	45.25	37.0	1.223	43.62	38.2	1.142	39.20	37.4	1.048	44.09	39.3	1.122		56.11	40.9	1.372
1951: January	41.76	36.7	1.138	45.35	36.4	1.246	44.35	38.7	1.146	39.60	37.5	1.056	44.83	39.5	1.135		54.94	40.4	1.360

Year and month	Manufacturing—Continued																		
	Lumber and wood products (except furniture)—Continued																		
	Logging camps and contractors			Sawmills and planing mills			Sawmills and planing mills, general									Millwork, plywood, and prefabricated structural wood products			
							United States			South			West						
1948: Average	\$60.26	38.7	\$1.557	\$51.83	41.5	\$1.249	\$51.87	41.4	\$1.253								\$54.95	43.3	\$1.269
1949: Average	61.31	39.1	1.568	52.37	40.6	1.290	53.06	40.6	1.307	\$35.66	42.1	\$0.847	\$67.12	38.8	\$1.730		55.06	41.9	1.314
1950: January	50.23	37.4	1.343	47.38	38.3	1.237	47.77	38.0	1.257	35.34	40.9	.864	58.34	34.4	1.696		56.14	42.4	1.324
February	54.86	37.6	1.459	50.59	39.4	1.284	51.17	39.3	1.302	36.90	40.8	.911	64.14	37.4	1.715		57.04	42.5	1.342
March	62.94	38.4	1.639	51.85	40.1	1.293	52.31	39.9	1.311	37.13	40.5	.910	66.43	38.8	1.712		57.74	42.9	1.346
April	65.31	39.2	1.666	53.10	40.5	1.311	53.73	40.4	1.330	37.97	41.5	.915	67.82	39.0	1.739		59.00	43.0	1.372
May	67.37	39.7	1.697	54.19	-0.5	1.338	54.86	40.4	1.358	38.11	41.6	.916	69.07	39.0	1.771		59.25	43.0	1.378
June	67.85	39.7	1.709	56.08	41.6	1.348	56.95	41.6	1.369	39.19	42.5	.922	73.93	40.4	1.830		61.27	43.7	1.402
July	68.04	39.4	1.727	55.95	40.9	1.368	56.67	40.8	1.389	38.98	42.1	.926	72.74	39.3	1.851		59.85	+2.9	1.395
August	73.98	41.1	1.800	57.95	41.9	1.383	58.49	41.6	1.406	40.13	43.2	.929	74.28	40.0	1.857		61.55	43.5	1.415
September	70.07	38.8	1.806	57.69	41.0	1.407	58.49	40.9	1.430	39.63	42.2	.939	74.33	39.1	1.901		62.06	43.4	1.430
October	70.31	38.8	1.812	58.56	41.8	1.401	59.34	41.7	1.423	41.25	43.6	.946	74.82	39.4	1.899		63.71	44.0	1.448
November	65.40	37.2	1.758	56.53	40.7	1.389	57.15	40.5	1.411	40.34	42.6	.947	72.96	38.5	1.895		63.12	43.5	1.451
December	61.60	37.4	1.647	55.27	40.4	1.368	55.74	40.1	1.390	40.05	42.2	.949	71.67	38.0	1.886		64.15	43.7	1.468
1951: January	57.84	36.4	1.589	54.32	40.0	1.358	54.67	39.7	1.377	(?)	(?)	(?)	(?)	(?)	(?)		62.73	42.7	1.469

Year and month	Manufacturing—Continued																	
	Lumber and wood products (except furniture)—Continued																	
	Lumber and wood products (except furniture)—Continued															Furniture and fixtures		
	Millwork			Wooden containers			Wooden boxes, other than cigar			Miscellaneous wood products			Total: Furniture and fixtures			Household furniture		
1948: Average	\$53.40	43.2	\$1.236	\$41.57	41.4	\$1.004	\$42.39	42.1	\$1.007	\$44.06	42.0	\$1.049	\$48.99	41.1	\$1.192	\$46.76	40.8	\$1.146
1949: Average	54.23	42.2	1.285	41.90	40.6	1.032	42.48	41.0	1.036	44.16	40.7	1.085	49.48	40.1	1.234	47.04	39.8	1.182
1950: January	56.07	42.9	1.307	41.27	39.8	1.037	41.94	40.4	1.038	43.85	40.3	1.088	51.13	41.1	1.244	49.36	41.2	1.198
February	55.76	42.4	1.315	42.82	39.5	1.084	43.05	39.9	1.079	44.69	40.3	1.109	52.29	41.7	1.254	50.87	41.9	1.214
March	56.49	42.7	1.323	42.85	39.6	1.082	43.30	40.2	1.077	44.91	40.5	1.109	52.17	41.7	1.251	50.70	41.9	1.210
April	57.56	42.7	1.348	43.81	39.9	1.098	44.87	41.2	1.089	45.33	40.8	1.111	51.67	41.3	1.251	49.85	41.2	1.210
May	57.83	42.9	1.348	44.47	40.1	1.109	44.79	40.9	1.095	44.89	40.3	1.114	51.67	41.2	1.250	50.14	41.4	1.211
June	59.69	43.7	1.366	46.48	40.7	1.142	47.13	41.6	1.133	46.16	41.1	1.123	52.03	41.8	1.259	50.71	41.7	1.216
July	58.57	43.1	1.359	47.68	41.0	1.163	48.40	41.8	1.158	46.88	41.3	1.135	52.03	41.0	1.269	49.53	40.6	1.239
August	59.39	43.1	1.378	48.10	41.5	1.159	48.57	42.2	1.151	48.35	42.3	1.143	54.87	42.8	1.282	52.91	42.7	1.281
September	60.63	43.4	1.397	47.50	40.7	1.167	47.64	41.5	1.148	49.10	42.4	1.158	55.42	42.6	1.301	53.84	42.7	1.281
October	61.81	43.9	1.408	48.74	41.8	1.166	49.31	42.8	1.152	49.80	42.6	1.169	56.27	42.6	1.321	54.57	42.7	1.278
November	61.52	43.6	1.411	48.50	41.7	1.163	49.16	42.6	1.154	50.07	42.5	1.178	56.87	42.6	1.335	55.30	42.7	1.295
December	61.93	43.4	1.427	48.47	41.5	1.168	49.59	42.9	1.166	50.08	42.8	1.184	56.59	42.2	1.341	54.65	42.1	1.298
1951: January	60.42	42.4	1.425	48.25	41.2	1.171	49.23	42.4	1.161	50.56	42.2	1.198	56.63	41.7	1.358	54.24	41.5	1.307

See footnotes at end of table.

TABLE C-1: Hours and Gross Earnings of Production Workers or Nonsupervisory Employees ¹—Con.

Year and month	Manufacturing—Continued																	
	Furniture and fixtures—Continued												Paper and allied products					
	Wood household furniture, except upholstered			Wood household furniture, upholstered			Mattresses and bedsprings			Other furniture and fixtures			Total: Paper and allied products			Pulp, paper, and paperboard mills		
	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings
1948: Average	\$43.84	41.2	\$1.064	\$50.33	40.1	\$1.255	\$50.85	40.1	\$1.268	\$54.59	41.7	\$1.309	\$55.25	42.8	\$1.291	\$59.88	44.0	\$1.361
1949: Average	43.68	40.0	1.092	50.18	38.9	1.290	51.69	39.7	1.302	55.47	40.7	1.363	55.96	41.7	1.342	59.83	42.4	1.411
1950: January	46.08	41.7	1.105	52.78	40.2	1.313	54.54	40.7	1.340	56.13	41.0	1.369	57.56	42.2	1.364	61.62	43.0	1.433
February	46.70	42.0	1.112	54.95	41.5	1.324	57.43	41.8	1.374	56.28	41.2	1.366	57.80	42.5	1.360	61.71	43.4	1.422
March	47.21	42.3	1.116	54.60	40.9	1.335	57.03	41.6	1.371	56.14	41.1	1.366	58.06	42.6	1.363	61.89	43.4	1.426
April	46.40	41.5	1.118	54.42	40.7	1.337	54.28	40.0	1.357	56.52	41.5	1.362	58.20	42.3	1.376	62.42	43.2	1.445
May	47.17	42.0	1.123	54.42	40.7	1.337	53.97	39.8	1.356	55.41	40.8	1.358	58.08	42.3	1.373	61.82	43.2	1.431
June	47.52	42.2	1.126	54.54	40.7	1.340	55.57	40.8	1.362	57.60	42.2	1.365	60.03	43.0	1.396	64.21	43.8	1.466
July	46.44	41.1	1.130	52.87	39.9	1.325	54.31	39.7	1.368	58.86	42.1	1.398	61.36	43.3	1.417	65.74	44.0	1.494
August	49.19	43.0	1.144	56.66	42.0	1.349	58.42	42.3	1.381	60.24	43.0	1.401	62.74	44.0	1.426	66.99	44.6	1.502
September	49.97	43.0	1.162	58.61	42.5	1.379	59.59	42.2	1.412	59.71	42.2	1.415	63.10	44.0	1.438	66.89	44.3	1.510
October	51.39	43.4	1.184	60.49	42.9	1.410	57.69	40.8	1.414	61.24	42.5	1.441	63.27	44.0	1.438	67.20	44.5	1.510
November	51.58	43.2	1.194	60.65	42.5	1.427	61.70	42.0	1.469	61.25	42.3	1.448	64.92	44.1	1.472	69.00	44.4	1.554
December	51.12	42.6	1.200	60.51	42.2	1.434	60.61	41.4	1.464	61.97	42.5	1.458	66.29	44.4	1.493	70.67	44.9	1.574
1951: January	51.15	42.2	1.212	56.99	39.8	1.432	61.46	41.5	1.481	62.94	42.1	1.495	65.88	43.8	1.504	70.56	44.6	1.582

Year and month	Manufacturing—Continued																	
	Paper and allied products—Continued									Printing, publishing, and allied industries								
	Paperboard containers and boxes			Other paper and allied products			Total: Printing, publishing, and allied industries			Newspapers			Periodicals			Books		
	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings
1948: Average	\$50.96	41.7	\$1.222	\$49.48	41.3	\$1.198	\$66.73	39.3	\$1.698	\$74.00	37.6	\$1.968	\$69.55	40.6	\$1.713	\$57.43	38.7	\$1.484
1949: Average	52.45	41.2	1.273	51.07	40.6	1.258	70.28	38.7	1.816	78.37	37.3	2.101	70.21	38.9	1.805	61.07	38.6	1.582
1950: January	53.57	41.4	1.294	52.69	41.2	1.279	70.49	38.5	1.831	76.43	36.5	2.094	69.94	38.6	1.812	61.76	38.1	1.621
February	54.17	41.7	1.299	53.03	41.4	1.281	70.75	38.2	1.852	76.38	36.3	2.104	72.15	39.3	1.836	60.50	37.3	1.622
March	54.77	42.0	1.304	53.20	41.5	1.282	72.14	38.6	1.869	78.42	36.8	2.131	74.12	39.7	1.867	62.79	38.5	1.631
April	54.03	41.4	1.305	53.27	41.2	1.293	72.18	38.6	1.870	79.88	37.1	2.153	72.41	39.1	1.852	64.05	39.2	1.634
May	54.74	41.5	1.319	53.35	41.2	1.295	72.64	38.7	1.877	81.05	37.3	2.173	71.60	38.6	1.855	64.33	39.3	1.637
June	56.62	42.6	1.329	54.59	41.7	1.309	72.72	38.7	1.879	80.76	37.2	2.171	71.92	39.0	1.844	64.11	39.5	1.623
July	57.70	42.9	1.345	55.36	42.0	1.318	72.30	38.5	1.878	79.20	36.6	2.164	72.83	39.2	1.858	63.34	39.0	1.624
August	59.75	44.0	1.358	56.79	42.7	1.330	73.17	38.9	1.881	78.84	36.5	2.160	75.08	39.6	1.896	67.31	40.5	1.662
September	60.96	44.3	1.376	57.06	42.9	1.330	74.48	39.2	1.900	81.01	36.9	2.198	79.98	41.1	1.946	64.70	39.5	1.638
October	61.18	44.4	1.378	57.11	42.4	1.347	74.22	39.0	1.903	81.07	36.8	2.203	77.33	40.4	1.914	64.16	39.1	1.641
November	62.16	44.4	1.400	59.07	42.9	1.377	74.52	39.2	1.901	82.29	37.2	2.212	76.07	39.7	1.916	64.52	39.1	1.650
December	63.79	44.7	1.427	60.04	43.1	1.393	76.38	39.8	1.919	85.27	38.1	2.238	76.38	39.7	1.924	66.50	39.7	1.675
1951: January	62.64	43.5	1.440	59.98	42.6	1.408	73.92	38.7	1.910	78.75	35.7	2.206	78.03	40.2	1.941	66.31	39.4	1.683

Year and month	Manufacturing—Continued																	
	Printing, publishing, and allied industries—Continued									Chemicals and allied products								
	Commercial printing			Lithographing			Other printing and publishing			Total: Chemicals and allied products			Industrial inorganic chemicals			Industrial organic chemicals		
	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings
1948: Average	\$66.33	40.3	\$1.646	\$64.15	39.5	\$1.624	\$59.93	39.3	\$1.525	\$56.23	41.5	\$1.355	\$62.13	40.9	\$1.519	\$57.69	40.4	\$1.428
1949: Average	69.44	39.7	1.749	69.17	39.3	1.760	62.66	38.7	1.619	58.63	41.0	1.430	63.90	40.6	1.574	60.83	39.5	1.540
1950: January	70.80	40.0	1.770	69.03	38.5	1.793	64.48	39.2	1.645	60.05	41.3	1.454	64.64	40.2	1.608	63.63	40.3	1.579
February	70.70	39.3	1.799	70.07	38.8	1.806	64.77	38.9	1.665	59.96	41.1	1.459	65.12	40.7	1.600	62.64	40.0	1.566
March	71.56	39.6	1.807	71.34	39.2	1.820	65.16	38.9	1.675	60.09	41.1	1.462	65.48	40.8	1.605	62.56	40.0	1.564
April	70.88	39.4	1.799	71.58	39.2	1.826	64.54	38.9	1.659	60.56	41.2	1.470	65.77	40.9	1.608	63.12	40.1	1.574
May	71.68	39.8	1.801	71.74	39.7	1.807	63.39	38.3	1.655	61.18	41.2	1.485	65.85	40.7	1.618	63.91	40.5	1.578
June	71.79	39.6	1.813	72.23	39.6	1.824	64.00	38.6	1.658	62.39	41.4	1.507	65.32	39.9	1.637	65.16	40.8	1.597
July	71.95	39.6	1.817	73.11	39.8	1.837	64.58	39.0	1.656	62.99	41.2	1.529	68.85	41.2	1.671	66.02	40.7	1.622
August	72.38	40.1	1.805	76.22	41.2	1.850	65.82	39.2	1.679	63.48	41.6	1.526	68.97	41.6	1.658	65.85	40.7	1.618
September	73.61	40.6	1.813	75.67	40.9	1.850	65.90	38.9	1.694	64.16	41.8	1.535	68.24	40.4	1.689	67.52	40.8	1.655
October	73.78	39.9	1.849	76.09	41.4	1.838	65.69	39.5	1.663	64.55	42.0	1.537	71.13	41.4	1.718	67.98	40.9	1.662
November	73.42	40.1	1.831	74.89	40.9	1.836	66.59	39.9	1.669	65.52	42.0	1.560	71.91	41.4	1.737	69.34	41.2	1.683
December	75.65	41.0	1.845	75.30	41.1	1.832	67.16	40.0	1.679	66.43	42.1	1.578	72.63	41.6	1.746	69.50	41.1	1.691
1951: January	74.02	40.1	1.846	73.75	39.8	1.853	67.44	40.0	1.686	66.87	41.9	1.596	73.21	41.2	1.777	70.06	40.9	1.713

See footnotes at end of table.

TABLE C-1: Hours and Gross Earnings of Production Workers or Nonsupervisory Employees ¹—Con.

Year and month	Manufacturing—Continued																	
	Chemicals and allied products—Continued																	
	Plastics, except synthetic rubber			Synthetic rubber			Synthetic fibers			Drugs and medicines			Paints, pigments, and fillers			Fertilizers		
	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings
1948: Average	\$58.75	41.4	\$1.419	\$62.88	39.9	\$1.576	\$53.05	39.5	\$1.343	\$53.71	40.6	\$1.323	\$58.40	42.2	\$1.384	\$42.33	41.5	\$1.020
1949: Average	60.36	40.4	1.494	66.74	39.8	1.677	55.20	38.6	1.430	56.60	40.4	1.401	59.78	41.0	1.458	44.72	41.6	1.075
1950: January	63.84	42.0	1.520	68.48	39.7	1.725	56.45	39.2	1.440	57.37	40.6	1.413	61.21	41.0	1.493	44.80	40.8	1.098
February	61.96	40.9	1.515	68.22	40.2	1.697	55.99	39.1	1.432	58.04	40.7	1.426	61.98	41.4	1.497	44.40	40.7	1.091
March	62.36	41.0	1.521	68.93	40.5	1.702	55.97	39.0	1.435	58.53	40.9	1.431	62.38	41.7	1.496	44.84	41.1	1.091
April	62.53	41.0	1.525	70.96	41.4	1.714	56.52	38.9	1.453	58.67	40.8	1.438	62.89	41.9	1.501	46.44	41.8	1.111
May	63.37	41.2	1.538	70.48	41.0	1.719	57.35	39.5	1.452	58.75	40.8	1.440	63.53	42.3	1.502	47.92	41.6	1.152
June	65.23	42.0	1.553	70.78	40.7	1.739	57.76	39.4	1.466	59.27	41.1	1.442	64.91	42.9	1.513	49.52	42.0	1.179
July	66.41	42.6	1.559	72.52	40.4	1.795	57.81	38.9	1.486	58.47	40.1	1.458	64.86	42.5	1.526	49.20	41.8	1.177
August	65.07	41.5	1.568	71.52	41.2	1.736	58.99	39.3	1.501	59.68	40.6	1.470	66.99	43.5	1.540	47.83	41.2	1.161
September	67.48	42.6	1.584	72.58	40.3	1.801	59.94	39.2	1.529	60.19	41.2	1.461	67.35	43.2	1.559	48.18	41.5	1.161
October	67.83	42.0	1.615	72.16	41.0	1.760	60.45	39.2	1.542	61.12	41.3	1.480	67.45	42.8	1.576	46.80	40.8	1.147
November	69.20	42.4	1.632	76.63	41.2	1.860	61.10	39.6	1.543	62.00	41.5	1.494	66.79	42.3	1.579	47.31	41.0	1.154
December	70.01	42.1	1.663	77.60	41.7	1.861	61.45	39.8	1.544	62.91	41.5	1.516	66.78	42.0	1.590	48.76	41.5	1.175
1951: January	71.82	42.7	1.682	76.92	41.0	1.876	61.66	39.6	1.557	63.58	41.5	1.532	68.34	42.5	1.608	49.80	42.2	1.180

Year and month	Manufacturing—Continued																	
	Chemicals and allied products—Continued									Products of petroleum and coal								
	Vegetable and animal oils and fats			Other chemicals and allied products			Soap and glycerin			Total: Products of petroleum and coal			Petroleum refining			Coke and byproducts		
	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings
1948: Average	\$50.39	47.4	\$1.063	\$57.90	41.3	\$1.402	\$65.90	42.0	\$1.569	\$69.23	40.7	\$1.701	\$72.06	40.3	\$1.788	\$58.56	39.7	\$1.475
1949: Average	51.12	47.2	1.083	60.67	40.8	1.487	66.54	40.9	1.627	72.36	40.4	1.791	75.33	40.2	1.874	61.07	39.3	1.554
1950: January	49.89	47.2	1.057	62.79	41.2	1.524	68.14	40.9	1.666	73.79	40.7	1.813	77.41	40.7	1.902	61.93	39.8	1.556
February	50.71	45.2	1.122	62.62	41.2	1.520	68.51	41.1	1.667	71.64	39.8	1.800	74.84	39.6	1.890	61.17	39.8	1.537
March	50.82	44.5	1.142	62.87	41.2	1.526	69.50	41.2	1.687	71.54	39.7	1.802	74.88	39.6	1.891	58.90	38.1	1.546
April	51.57	44.3	1.164	62.82	41.3	1.521	68.88	40.9	1.684	73.85	40.8	1.810	77.11	40.5	1.904	62.60	40.0	1.565
May	52.82	44.2	1.195	62.28	41.0	1.519	68.74	40.7	1.689	73.28	40.6	1.805	75.73	39.9	1.898	61.85	39.8	1.554
June	53.87	43.9	1.227	63.38	41.4	1.531	69.96	41.2	1.698	74.37	41.0	1.814	76.82	40.2	1.911	62.73	39.7	1.580
July	55.46	43.6	1.272	63.29	41.1	1.540	69.99	41.0	1.707	76.09	41.6	1.829	78.93	41.0	1.925	63.36	39.6	1.600
August	55.11	44.3	1.244	64.62	41.8	1.546	74.08	42.7	1.735	73.73	40.6	1.816	75.29	39.4	1.911	63.12	39.8	1.586
September	55.03	45.9	1.199	66.13	42.2	1.567	74.99	43.0	1.744	76.77	41.7	1.841	79.72	41.2	1.935	63.91	39.6	1.614
October	54.41	47.6	1.143	66.24	41.9	1.581	74.59	42.5	1.755	77.71	41.6	1.868	80.93	41.1	1.969	63.68	40.2	1.584
November	55.58	46.9	1.185	66.89	41.7	1.604	75.85	42.4	1.789	78.32	41.2	1.901	81.64	40.7	2.006	63.60	40.0	1.590
December	56.75	46.9	1.210	68.62	42.1	1.630	77.96	43.0	1.813	79.10	41.2	1.920	82.05	40.7	2.016	67.54	40.2	1.680
1951: January	56.69	45.9	1.235	69.05	42.0	1.644	77.53	42.6	1.820	79.66	41.0	1.943	82.95	40.7	2.038	68.69	40.1	1.713

Year and month	Manufacturing—Continued																	
	Products of petroleum and coal—Con.			Rubber products												Leather and leather products		
	Other petroleum and coal products			Total: Rubber products			Tires and inner tubes			Rubber footwear			Other rubber products			Total: Leather and leather products		
	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings
1948: Average	\$60.59	44.1	\$1.374	\$56.78	39.0	\$1.456	\$62.16	37.2	\$1.671	\$51.75	41.8	\$1.238	\$52.47	40.3	\$1.302	\$41.66	37.2	\$1.120
1949: Average	61.18	42.9	1.426	57.79	38.3	1.509	63.26	36.4	1.738	48.94	38.6	1.268	54.38	40.1	1.356	41.61	36.6	1.137
1950: January	58.56	41.3	1.418	60.52	39.4	1.536	67.70	38.4	1.763	45.87	35.7	1.285	57.04	41.3	1.381	42.90	37.7	1.138
February	58.94	41.3	1.427	59.90	39.2	1.528	67.22	38.3	1.755	43.06	34.2	1.259	56.43	41.1	1.373	44.08	38.1	1.157
March	60.00	41.9	1.432	59.70	39.3	1.519	65.26	37.4	1.745	51.04	40.0	1.276	56.16	40.9	1.373	44.15	37.9	1.165
April	63.00	43.3	1.455	61.76	40.0	1.544	69.23	39.0	1.775	50.36	39.5	1.275	57.13	41.1	1.390	41.96	35.8	1.172
May	67.44	45.2	1.492	64.52	41.2	1.566	74.60	41.1	1.815	50.20	39.4	1.274	57.92	41.7	1.389	41.56	35.4	1.174
June	69.13	46.3	1.493	65.08	41.4	1.572	74.05	40.6	1.824	52.07	40.3	1.292	59.23	42.4	1.397	43.60	37.2	1.172
July	70.38	46.7	1.507	65.59	41.2	1.592	75.22	40.4	1.862	52.13	39.7	1.313	59.08	42.2	1.400	44.73	38.1	1.174
August	71.82	47.5	1.612	66.25	41.8	1.585	76.01	40.8	1.863	53.93	41.9	1.287	60.13	42.8	1.405	46.49	39.2	1.186
September	69.76	46.2	1.510	66.58	41.9	1.589	75.46	40.9	1.845	53.95	41.5	1.300	61.30	42.9	1.429	45.72	38.1	1.200
October	69.94	45.8	1.527	66.29	41.9	1.582	73.12	40.2	1.819	56.00	42.2	1.327	62.48	43.3	1.443	46.04	37.8	1.218
November	69.15	44.9	1.540	66.52	41.5	1.603	73.70	40.1	1.838	54.52	42.0	1.298	62.71	42.6	1.472	45.94	37.5	1.225
December	69.67	44.6	1.562	68.81	41.6	1.654	76.63	40.1	1.911	59.34	42.6	1.393	64.20	42.8	1.500	47.22	38.3	1.233
1951: January	67.65	43.2	1.566	67.07	40.6	1.652	74.38	38.6	1.927	57.67	41.7	1.383	62.83	42.0	1.496	48.42	38.8	1.248

See footnotes at end of table.

TABLE C-1: Hours and Gross Earnings of Production Workers or Nonsupervisory Employees¹—Con.

Year and month	Manufacturing—Continued																	
	Leather and leather products—Continued									Stone, clay, and glass products								
	Leather			Footwear (except rubber)			Other leather products			Total: Stone, clay, and glass products			Glass and glass products			Glass containers		
	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings
1948: Average	\$53.26	39.6	\$1.345	\$39.71	36.6	\$1.085	\$40.49	37.7	\$1.074	\$53.46	40.9	\$1.307	\$54.06	39.2	\$1.379	\$52.05	39.7	\$1.311
1949: Average	54.11	38.9	1.391	39.35	35.9	1.096	41.10	37.5	1.096	54.45	39.8	1.368	56.71	39.0	1.454	53.80	39.3	1.369
1950: January	55.34	39.0	1.419	40.77	37.4	1.090	42.21	38.1	1.108	55.32	39.8	1.390	59.31	39.7	1.494	55.28	39.6	1.396
February	55.29	39.1	1.414	42.22	37.8	1.117	42.90	38.2	1.123	55.56	40.0	1.389	59.36	40.0	1.484	54.93	39.6	1.387
March	54.89	38.9	1.411	42.15	37.4	1.127	43.73	38.7	1.130	55.70	40.1	1.389	59.35	40.1	1.480	54.79	39.7	1.380
April	54.44	38.5	1.414	39.18	34.7	1.129	42.75	37.5	1.140	56.56	40.4	1.400	59.58	40.2	1.482	55.42	40.1	1.382
May	55.00	38.9	1.414	38.48	34.2	1.125	42.58	36.9	1.154	57.28	40.8	1.404	59.78	40.5	1.476	54.98	40.4	1.361
June	56.57	39.7	1.425	40.84	36.4	1.122	44.39	38.3	1.159	58.12	41.1	1.414	59.74	40.2	1.486	55.23	40.4	1.367
July	56.73	39.7	1.429	42.53	37.7	1.128	44.16	38.2	1.156	58.57	40.9	1.432	60.24	39.5	1.525	55.40	39.6	1.399
August	58.40	40.5	1.442	44.39	38.8	1.144	45.70	39.5	1.157	59.40	41.6	1.428	59.10	39.8	1.485	53.31	38.8	1.374
September	58.64	40.3	1.455	43.32	37.6	1.152	45.00	38.1	1.181	60.88	41.5	1.467	61.31	39.0	1.572	54.69	37.1	1.474
October	59.44	40.3	1.475	42.76	36.7	1.165	47.64	39.5	1.206	63.11	42.5	1.485	65.66	41.4	1.586	61.19	40.9	1.496
November	59.79	40.4	1.480	42.23	36.0	1.173	47.96	39.7	1.208	63.66	42.3	1.505	67.03	41.3	1.623	59.94	40.5	1.480
December	61.13	40.7	1.502	43.87	37.4	1.173	48.59	39.5	1.230	63.49	42.1	1.508	65.57	40.8	1.607	59.98	40.5	1.481
1951: January	61.50	40.7	1.511	45.96	38.4	1.197	47.92	38.9	1.232	63.33	41.5	1.526	66.14	40.7	1.625	61.16	40.5	1.510

Year and month	Manufacturing—Continued																	
	Stone, clay, and glass products—Continued																	
	Pressed and blown glass			Cement, hydraulic			Structural clay products			Brick and hollow tile			Sewer pipe			Pottery and related products		
	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings
1948: Average	\$47.61	38.8	\$1.227	\$54.76	41.9	\$1.307	\$49.57	40.4	\$1.227	\$49.05	42.5	\$1.154	\$47.96	40.0	\$1.199	\$49.46	38.7	\$1.278
1949: Average	50.30	38.6	1.303	57.49	41.6	1.382	49.73	39.0	1.275	49.57	41.8	1.186	48.61	39.2	1.240	48.85	36.4	1.342
1950: January	51.39	38.9	1.321	57.55	40.9	1.407	49.52	38.6	1.283	47.81	41.0	1.166	47.50	38.4	1.237	48.99	36.1	1.357
February	50.90	39.0	1.305	57.73	41.5	1.391	49.37	38.6	1.279	47.14	40.5	1.164	46.78	38.0	1.231	50.00	36.9	1.355
March	51.29	39.3	1.305	57.47	41.2	1.395	49.90	38.8	1.286	48.26	41.0	1.177	48.30	38.0	1.271	50.37	37.2	1.354
April	49.87	38.6	1.292	58.98	41.7	1.412	52.37	40.1	1.306	51.27	42.3	1.212	50.63	40.8	1.241	50.26	36.9	1.362
May	50.96	39.2	1.300	59.13	41.7	1.418	53.27	40.2	1.325	54.16	43.4	1.248	49.96	38.4	1.301	50.46	37.1	1.360
June	50.27	38.4	1.309	60.27	42.0	1.435	54.09	40.7	1.329	54.63	43.6	1.253	54.85	41.3	1.328	48.71	35.3	1.380
July	49.93	38.0	1.314	61.30	41.7	1.470	54.40	40.9	1.330	54.89	43.6	1.259	54.60	41.3	1.322	49.13	35.5	1.384
August	51.61	39.7	1.300	61.13	42.1	1.452	55.27	41.4	1.335	55.71	43.9	1.269	53.85	40.4	1.333	52.59	38.0	1.384
September	56.70	40.5	1.400	61.66	41.8	1.475	56.00	41.3	1.356	55.73	43.2	1.290	54.88	40.5	1.355	53.70	38.3	1.402
October	58.24	41.1	1.417	61.59	41.9	1.470	57.73	41.8	1.381	57.77	44.2	1.307	55.05	40.3	1.366	55.91	39.4	1.419
November	61.15	41.4	1.477	62.10	42.1	1.475	57.86	41.3	1.401	57.61	43.7	1.316	54.14	39.2	1.381	57.47	39.8	1.444
December	58.61	40.9	1.433	62.41	41.8	1.493	57.83	41.1	1.407	57.07	43.5	1.312	52.86	38.5	1.373	56.92	38.8	1.467
1951: January	57.32	40.0	1.433	62.29	41.2	1.512	58.18	40.6	1.433	55.49	42.2	1.315	54.32	38.8	1.400	56.53	38.3	1.476

Year and month	Manufacturing—Continued																	
	Stone, clay, and glass products—Continued									Primary metal industries								
	Concrete, gypsum, and plaster products			Concrete products			Other stone, clay, and glass products			Total: Primary metal industries			Blast furnaces, steel works, and rolling mills			Iron and steel foundries		
	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings
1948: Average	\$56.49	44.8	\$1.261	\$56.92	44.4	\$1.282	\$55.10	41.0	\$1.344	\$61.03	40.1	\$1.522	\$62.41	39.5	\$1.580	\$58.45	40.7	\$1.436
1949: Average	57.77	43.8	1.319	59.31	43.8	1.354	54.72	39.2	1.396	60.78	38.3	1.587	63.04	38.3	1.646	55.09	37.2	1.481
1950: January	58.16	43.6	1.334	56.80	42.2	1.346	55.33	39.3	1.408	63.79	39.5	1.615	65.83	39.3	1.675	58.17	38.7	1.503
February	58.55	43.6	1.343	55.71	41.3	1.349	55.69	39.3	1.417	63.48	39.6	1.603	64.81	39.3	1.649	59.11	39.2	1.508
March	59.13	43.9	1.347	57.48	42.2	1.362	55.75	39.4	1.415	62.40	38.9	1.604	61.84	37.5	1.649	60.33	39.9	1.512
April	59.76	44.1	1.355	59.25	43.5	1.362	56.22	39.4	1.427	65.00	40.4	1.609	66.08	40.0	1.652	62.37	40.9	1.525
May	60.75	44.7	1.359	60.20	44.3	1.359	58.07	40.3	1.441	65.57	40.5	1.619	65.86	39.7	1.659	63.19	41.3	1.530
June	62.06	45.2	1.373	61.07	45.1	1.354	60.09	41.7	1.441	66.50	40.8	1.630	66.63	39.8	1.674	64.72	42.0	1.541
July	63.06	45.4	1.389	60.78	44.2	1.375	60.17	41.3	1.457	66.95	40.7	1.645	67.83	39.9	1.704	64.37	41.8	1.540
August	64.44	45.7	1.410	62.62	44.6	1.404	62.20	42.4	1.467	67.36	41.1	1.639	67.37	40.1	1.680	66.07	42.6	1.551
September	65.35	45.7	1.430	63.59	44.5	1.429	64.52	42.9	1.504	69.10	41.4	1.669	69.30	40.2	1.724	67.57	42.9	1.575
October	66.38	46.0	1.443	64.09	44.6	1.437	65.79	43.2	1.523	69.81	41.9	1.666	68.87	40.8	1.688	70.04	43.8	1.599
November	65.57	45.6	1.438	63.64	44.1	1.443	66.55	43.1	1.544	70.14	41.8	1.678	69.03	40.8	1.692	69.23	43.0	1.610
December	65.95	45.7	1.443	65.14	44.8	1.454	67.43	43.5	1.550	74.54	42.4	1.758	75.03	41.0	1.830	72.49	44.2	1.640
1951: January	64.40	44.2	1.457	63.14	43.1	1.465	66.98	42.8	1.565	74.96	41.9	1.789	77.27	41.1	1.880	71.95	43.5	1.654

See footnotes at end of table.

TABLE C-1: Hours and Gross Earnings of Production Workers or Nonsupervisory Employees ¹-Con.

Year and month	Manufacturing-Continued																	
	Primary metal industries-Continued																	
	Gray-iron foundries			Malleable-iron foundries			Steel foundries			Primary smelting and refining of nonferrous metals			Primary smelting and refining of copper, lead, and zinc			Primary refining of aluminum		
	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings
1948: Average	\$57.46	40.9	\$1.405	\$59.19	40.4	\$1.465	\$59.93	40.6	\$1.476	\$58.22	41.0	\$1.420	\$57.14	40.9	\$1.397	\$58.95	41.4	\$1.424
1949: Average	54.38	37.5	1.450	54.30	35.7	1.521	56.73	37.3	1.521	60.36	40.4	1.494	58.99	40.1	1.471	61.95	41.3	1.500
1950: January	57.74	39.2	1.473	59.25	38.3	1.547	57.75	37.6	1.536	62.07	41.3	1.503	61.35	41.4	1.482	61.16	40.8	1.499
February	58.91	39.7	1.484	59.25	38.6	1.535	59.83	38.7	1.546	60.24	40.4	1.491	59.00	40.3	1.464	61.66	41.0	1.504
March	59.81	40.3	1.484	61.70	39.6	1.558	60.61	39.1	1.550	61.13	40.7	1.502	59.79	40.7	1.469	62.25	40.9	1.522
April	62.03	41.3	1.502	63.25	40.6	1.558	62.79	40.3	1.558	61.61	40.8	1.510	60.38	40.8	1.480	62.03	40.7	1.524
May	63.24	41.8	1.513	63.28	40.8	1.551	63.30	40.6	1.559	61.98	40.8	1.519	60.29	40.6	1.485	62.73	41.0	1.530
June	64.08	42.3	1.515	65.87	41.9	1.572	65.65	41.5	1.582	62.54	40.9	1.529	61.44	40.8	1.506	62.44	41.0	1.523
July	63.88	42.0	1.521	64.80	41.3	1.569	65.31	41.6	1.570	62.83	40.3	1.559	61.37	39.9	1.538	63.06	41.0	1.538
August	66.36	43.2	1.536	66.32	42.0	1.579	65.73	41.6	1.580	63.15	40.9	1.544	61.89	40.8	1.517	62.87	40.8	1.541
September	67.97	43.6	1.559	67.69	42.2	1.604	66.08	41.3	1.600	64.44	41.2	1.564	63.18	41.0	1.541	63.47	41.0	1.548
October	70.26	44.3	1.586	69.18	42.6	1.624	69.38	42.8	1.621	66.40	41.5	1.600	65.01	41.7	1.559	67.23	40.4	1.664
November	69.18	43.4	1.594	69.28	42.5	1.630	69.17	42.2	1.639	67.73	41.0	1.652	66.30	40.9	1.621	68.84	41.0	1.679
December	72.05	44.5	1.619	72.06	43.7	1.649	72.52	43.4	1.671	69.60	41.8	1.665	68.10	41.6	1.637	70.01	41.7	1.679
1951: January	70.68	43.6	1.621	71.30	42.8	1.666	73.44	43.0	1.708	71.35	41.7	1.711	70.21	41.4	1.696	69.75	41.1	1.697
Year and month	Manufacturing-Continued																	
	Primary metal industries-Continued																	
	Rolling, drawing, and alloying of nonferrous metals			Rolling, drawing, and alloying of copper			Rolling, drawing, and alloying of aluminum			Nonferrous foundries			Other primary metal industries			Iron and steel forgings		
	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings
1948: Average	\$57.81	40.2	\$1.438	\$60.42	40.8	\$1.481	\$53.88	39.1	\$1.378	\$59.96	40.0	\$1.499	\$63.08	40.8	\$1.546	\$65.16	40.8	\$1.597
1949: Average	58.05	38.7	1.500	59.29	38.5	1.640	56.21	38.9	1.445	60.92	39.0	1.662	63.34	39.1	1.620	63.18	38.2	1.654
1950: January	61.97	40.5	1.530	64.53	41.1	1.570	57.37	39.4	1.456	62.73	39.6	1.584	65.44	40.0	1.636	64.89	38.6	1.681
February	63.29	41.1	1.540	66.30	41.7	1.590	57.91	39.8	1.455	62.29	39.5	1.577	67.28	40.8	1.649	66.94	39.4	1.699
March	64.29	41.4	1.553	66.96	41.9	1.598	59.54	40.5	1.470	63.04	40.1	1.572	67.23	40.4	1.664	68.75	39.9	1.723
April	64.29	41.4	1.553	67.61	42.1	1.606	58.53	40.2	1.456	64.03	40.5	1.581	67.61	40.8	1.657	68.80	40.0	1.720
May	66.63	42.2	1.579	70.72	43.2	1.637	58.73	40.2	1.461	65.36	40.9	1.598	69.68	41.6	1.675	72.94	41.8	1.745
June	67.75	42.8	1.583	72.26	43.9	1.646	58.26	40.4	1.442	66.52	41.6	1.599	70.39	41.8	1.684	72.21	41.5	1.740
July	67.76	42.4	1.598	73.46	44.2	1.662	57.02	39.0	1.462	64.27	40.5	1.587	70.47	41.6	1.694	73.08	41.5	1.761
August	68.48	42.8	1.600	73.67	44.3	1.663	58.51	39.8	1.470	66.36	41.4	1.603	71.95	42.2	1.705	74.63	41.6	1.794
September	65.21	41.4	1.575	68.09	41.8	1.629	57.56	39.4	1.461	70.61	42.9	1.646	74.13	42.8	1.732	77.83	42.6	1.827
October	68.05	41.8	1.628	70.22	42.1	1.668	63.59	40.4	1.574	72.29	42.8	1.689	75.17	43.3	1.736	80.29	43.4	1.850
November	69.18	41.7	1.659	71.48	41.8	1.710	64.43	40.6	1.587	72.80	42.8	1.701	76.65	43.8	1.750	82.86	44.1	1.879
December	72.97	43.1	1.693	77.04	44.2	1.743	66.01	40.9	1.614	76.21	43.9	1.736	77.56	43.5	1.783	80.75	43.3	1.865
1951: January	68.92	41.1	1.677	70.29	41.2	1.706	65.61	40.4	1.624	72.67	42.3	1.718	77.90	42.8	1.820	82.36	43.3	1.902
Year and month	Manufacturing-Continued																	
	Primary metal industries-Con.			Fabricated metal products (except ordnance, machinery, and transportation equipment)														
	Wire drawing			Total: Fabricated metal products (except ordnance, machinery, and transportation equipment)			Tin cans and other tinware			Cutlery, hand tools, and hardware			Cutlery and edge tools			Hand tools		
	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings
1948: Average	\$62.17	40.5	\$1.535	\$56.68	40.6	\$1.396	\$54.07	40.9	\$1.322	\$54.22	40.8	\$1.329	\$51.13	41.3	\$1.238	\$56.07	40.9	\$1.371
1949: Average	63.66	39.2	1.624	57.82	39.6	1.460	56.24	40.4	1.392	54.82	39.3	1.395	50.84	40.0	1.271	54.54	38.6	1.413
1950: January	68.05	40.6	1.676	59.93	40.3	1.487	56.76	40.4	1.405	57.55	40.5	1.421	50.79	39.9	1.273	55.92	39.3	1.423
February	71.06	42.2	1.684	59.68	40.3	1.481	56.80	40.2	1.413	58.20	40.7	1.430	51.22	40.3	1.271	55.87	39.1	1.429
March	68.82	40.7	1.691	59.64	40.3	1.480	56.98	40.3	1.414	58.83	41.2	1.428	53.07	41.2	1.288	56.77	39.7	1.430
April	69.89	41.6	1.680	60.56	40.7	1.488	58.77	40.7	1.444	58.79	41.2	1.427	53.49	41.4	1.292	57.32	40.0	1.433
May	70.39	41.6	1.692	60.89	40.7	1.496	59.20	41.0	1.444	57.57	40.6	1.418	52.16	40.5	1.288	58.20	40.5	1.437
June	72.93	42.4	1.720	62.87	41.5	1.515	60.94	41.8	1.458	60.61	41.6	1.457	54.41	41.6	1.308	59.16	40.8	1.450
July	72.89	42.6	1.711	62.55	41.1	1.522	64.14	42.9	1.458	59.57	41.6	1.467	51.34	39.4	1.303	59.38	40.7	1.459
August	74.25	43.5	1.707	64.79	42.1	1.539	67.46	44.5	1.516	61.03	41.6	1.467	56.08	42.2	1.329	63.11	42.1	1.499
September	77.86	44.8	1.738	65.72	42.1	1.561	63.90	43.0	1.486	62.96	42.0	1.499	57.14	42.2	1.354	64.63	42.3	1.528
October	77.00	44.2	1.742	66.66	42.3	1.576	60.56	41.0	1.477	64.99	42.9	1.519	60.71	43.9	1.383	66.13	42.8	1.545
November	78.80	45.0	1.751	66.20	41.9	1.580	58.85	40.2	1.464	64.09	42.0	1.526	60.56	43.1	1.405	67.31	42.9	1.569
December	80.77	44.6	1.811	68.31	42.4	1.611	62.41	41.8	1.493	66.87	43.0	1.555	62.91	43.9	1.433	68.56	43.2	1.587
1951: January	82.43	44.2	1.865	67.56	41.6	1.624	63.14	41.0	1.540	65.24	41.9	1.557	60.76	42.7	1.423	68.64	42.9	1.600

See footnotes at end of table.

TABLE C-1: Hours and Gross Earnings of Production Workers or Nonsupervisory Employees ¹—Con.

Manufacturing—Continued																		
Fabricated metal products (except ordnance, machinery, and transportation equipment)—Continued																		
Year and month	Hardware			Heating apparatus (except electric) and plumbers' supplies			Sanitary ware and plumbers' supplies			Oil burners, non-electric heating and cooking apparatus, not elsewhere classified			Fabricated structural metal products			Structural steel and ornamental metalwork		
	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings
1948: Average	\$54.26	40.4	\$1.343	\$57.53	40.2	\$1.431	\$60.40	40.4	\$1.495	\$55.80	40.0	\$1.395	\$58.17	41.2	\$1.412	\$57.68	41.2	\$1.400
1949: Average	56.28	39.3	1.432	57.04	38.7	1.474	59.79	38.5	1.553	55.45	38.8	1.429	59.90	40.5	1.479	60.91	41.1	1.482
1950: January	60.19	41.0	1.468	59.23	39.7	1.492	62.24	40.0	1.556	57.14	39.6	1.443	60.30	40.2	1.500	61.51	41.2	1.493
February	61.04	41.3	1.478	59.59	39.7	1.501	63.54	40.5	1.569	56.76	39.2	1.448	59.81	39.9	1.499	61.01	40.7	1.499
March	61.15	41.6	1.470	60.20	40.0	1.505	63.86	40.6	1.573	57.62	39.6	1.455	60.38	40.2	1.502	61.43	40.9	1.502
April	60.71	41.5	1.463	60.76	40.0	1.519	63.91	40.4	1.582	58.63	39.8	1.473	61.31	40.6	1.510	62.09	41.2	1.507
May	58.87	40.6	1.450	61.30	40.3	1.521	63.91	40.4	1.582	59.30	40.2	1.475	61.66	40.7	1.518	62.25	41.2	1.511
June	62.93	41.9	1.502	62.11	40.7	1.526	65.27	41.1	1.588	59.90	40.5	1.479	62.65	41.0	1.525	63.40	41.6	1.524
July	61.88	41.2	1.502	63.28	41.2	1.536	67.43	41.7	1.617	60.20	40.9	1.472	61.39	40.1	1.531	60.39	39.6	1.525
August	61.91	41.3	1.499	65.53	41.9	1.564	67.51	41.8	1.615	64.20	42.1	1.525	64.22	41.7	1.540	63.63	41.7	1.526
September	64.23	41.9	1.533	66.83	42.3	1.580	71.18	42.8	1.663	64.13	42.0	1.527	65.02	41.6	1.563	63.44	41.3	1.536
October	65.82	42.6	1.545	68.09	42.4	1.606	72.41	43.1	1.680	65.20	41.9	1.556	65.93	42.1	1.566	64.85	42.0	1.544
November	63.97	41.3	1.549	67.27	41.6	1.617	72.85	42.6	1.710	63.67	41.0	1.553	66.25	42.2	1.570	65.80	42.1	1.563
December	67.55	42.7	1.582	68.71	42.1	1.632	74.39	43.3	1.718	64.96	41.3	1.573	68.16	42.2	1.619	67.30	41.7	1.614
1951: January	65.81	41.6	1.582	68.35	41.1	1.663	73.90	42.3	1.747	65.04	40.5	1.606	68.64	41.8	1.642	68.10	41.5	1.641

Manufacturing—Continued																		
Fabricated metal products (except ordnance, machinery, and transportation equipment)—Continued																		
Year and month	Boiler-shop products			Sheet-metal work			Metal stamping, coating, and engraving			Stamped and pressed metal products			Other fabricated metal products			Total: Machinery (except electrical)		
	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings
1948: Average	\$58.79	41.2	\$1.427	\$56.64	40.6	\$1.395	\$56.66	40.1	\$1.413	\$58.39	40.3	\$1.449	\$56.88	40.4	\$1.408	\$60.52	41.2	\$1.469
1949: Average	59.78	40.2	1.487	57.60	39.7	1.451	58.54	39.5	1.482	60.30	39.7	1.519	58.38	39.5	1.478	60.44	39.5	1.530
1950: January	58.62	38.9	1.507	58.93	39.9	1.477	61.02	40.2	1.518	63.37	40.7	1.557	61.51	40.6	1.515	61.57	39.8	1.547
February	58.45	39.1	1.495	58.89	40.2	1.465	60.67	40.5	1.498	62.35	40.7	1.532	60.47	40.5	1.493	62.55	40.3	1.552
March	58.79	39.3	1.498	58.39	39.8	1.467	60.63	40.5	1.497	62.59	40.8	1.534	59.14	39.8	1.486	63.34	40.6	1.560
April	59.77	39.0	1.498	58.76	40.0	1.469	61.19	40.9	1.496	62.92	41.1	1.531	61.16	40.8	1.499	64.33	41.0	1.569
May	59.60	40.0	1.490	60.40	40.7	1.484	61.55	40.6	1.516	63.55	41.0	1.550	62.43	41.1	1.519	65.09	41.3	1.576
June	61.22	40.6	1.508	60.28	40.4	1.492	64.16	41.8	1.535	66.31	42.1	1.575	64.82	42.2	1.536	65.69	41.5	1.593
July	61.52	40.5	1.519	61.04	40.8	1.496	63.58	41.1	1.547	65.46	41.3	1.585	63.94	41.6	1.537	65.35	41.6	1.595
August	62.35	41.1	1.517	63.52	41.9	1.516	65.69	42.0	1.564	67.86	42.2	1.608	66.17	42.5	1.557	67.98	42.3	1.607
September	64.38	41.4	1.555	63.90	41.6	1.536	66.34	41.7	1.591	68.46	41.9	1.634	67.32	42.5	1.584	68.94	42.4	1.626
October	65.00	41.4	1.570	65.77	42.6	1.544	67.05	41.8	1.604	68.60	41.7	1.645	68.66	42.7	1.608	71.00	42.9	1.655
November	65.92	42.2	1.562	64.96	41.8	1.554	66.77	41.5	1.609	68.64	41.6	1.650	67.85	42.3	1.604	72.03	43.0	1.675
December	68.24	42.2	1.617	67.38	42.3	1.593	68.91	42.2	1.633	70.73	42.2	1.676	70.27	42.9	1.638	74.25	43.7	1.699
1951: January	68.23	41.5	1.644	66.58	41.3	1.612	68.06	41.6	1.636	69.35	41.4	1.675	68.27	41.6	1.641	74.34	43.4	1.713

Manufacturing—Continued																		
Machinery (except electrical)—Continued																		
Year and month	Engines and turbines			Agricultural machinery and tractors			Tractors			Agricultural machinery (except tractors)			Construction and mining machinery			Metalworking machinery		
	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings
1948: Average	\$63.50	40.5	\$1.568	\$60.59	40.5	\$1.496	\$62.05	40.5	\$1.532	\$58.62	40.4	\$1.451	\$60.33	42.1	\$1.433	\$62.94	42.1	\$1.495
1949: Average	63.13	38.9	1.623	61.11	39.3	1.555	61.86	39.2	1.578	59.93	39.3	1.525	58.74	39.8	1.476	61.11	39.5	1.547
1950: January	63.88	39.0	1.638	61.58	39.1	1.575	61.92	38.8	1.596	60.91	39.4	1.546	60.28	40.4	1.492	61.42	39.4	1.559
February	63.69	39.0	1.633	63.24	40.0	1.581	64.28	40.2	1.599	61.93	39.8	1.556	61.36	40.8	1.504	63.86	40.6	1.573
March	63.96	39.0	1.640	62.92	39.6	1.589	63.92	39.7	1.610	61.66	39.5	1.561	62.36	41.3	1.510	65.10	41.1	1.584
April	68.72	41.0	1.676	62.96	39.7	1.586	64.68	40.1	1.613	60.68	39.1	1.552	63.11	41.6	1.517	67.21	41.8	1.608
May	68.79	40.8	1.686	63.88	40.1	1.593	65.49	40.4	1.621	61.77	39.7	1.556	63.70	41.8	1.524	68.57	42.3	1.621
June	68.70	40.7	1.688	63.84	40.2	1.588	65.16	40.5	1.609	62.16	39.9	1.558	65.20	42.7	1.527	69.81	42.8	1.631
July	68.91	40.3	1.710	63.88	40.1	1.593	65.08	40.3	1.615	62.25	39.8	1.564	65.06	42.3	1.538	71.16	43.1	1.651
August	70.83	41.3	1.715	65.29	40.3	1.620	67.39	40.5	1.664	62.36	40.0	1.559	66.60	42.8	1.556	73.42	44.2	1.661
September	70.81	41.0	1.727	64.35	40.5	1.589	65.97	40.5	1.629	62.37	40.5	1.540	67.62	42.8	1.580	73.24	43.7	1.676
October	69.48	40.0	1.737	64.82	39.5	1.641	65.27	38.9	1.678	64.00	40.2	1.592	69.96	43.7	1.601	77.83	45.2	1.722
November	74.57	42.2	1.767	67.51	40.4	1.671	69.50	41.1	1.691	64.69	39.4	1.642	70.31	43.4	1.620	78.23	45.3	1.727
December	78.95	43.5	1.815	70.66	41.3	1.711	73.72	42.1	1.751	66.45	40.2	1.653	72.22	44.2	1.634	80.59	46.0	1.752
1951: January	78.16	42.9	1.822	71.76	41.1	1.746	74.71	41.9	1.783	67.89	40.1	1.693	72.86	44.0	1.656	80.75	45.8	1.763

See footnotes at end of table.

TABLE C-1: Hours and Gross Earnings of Production Workers or Nonsupervisory Employees ¹—Con.

Manufacturing—Continued																			
Machinery (except electrical)—Continued																			
Year and month	Machine tools			Metalworking machinery (except machine tools)			Machine-tool accessories			Special-industry machinery (except metalworking machinery)			General industrial machinery			Office and store machines and devices			
	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	
1948: Average	\$61.57	42.2	\$1.459	\$62.98	42.1	\$1.496	\$65.21	41.8	\$1.560	\$60.62	42.3	\$1.433	\$59.78	41.2	\$1.451	\$61.49	41.1	\$1.496	
1949: Average	59.15	39.3	1.505	61.85	39.8	1.554	64.16	39.7	1.616	60.57	40.3	1.503	59.53	39.5	1.507	62.53	39.5	1.583	
1950: January	59.66	39.2	1.522	61.94	39.3	1.576	63.64	39.6	1.607	61.45	40.4	1.521	60.04	39.5	1.520	63.84	39.8	1.604	
February	61.86	40.3	1.535	66.17	41.2	1.606	65.37	40.6	1.610	61.80	40.5	1.526	59.93	39.4	1.521	63.64	39.9	1.595	
March	63.00	40.8	1.544	67.10	41.6	1.613	66.95	41.1	1.629	62.26	40.8	1.526	60.93	39.9	1.527	63.16	39.8	1.587	
April	64.69	41.6	1.555	68.95	42.2	1.634	69.56	41.8	1.664	62.65	41.0	1.528	62.01	40.4	1.535	63.60	40.1	1.586	
May	65.46	41.8	1.566	69.69	42.6	1.636	72.25	42.8	1.688	63.55	41.4	1.535	63.89	41.3	1.547	63.96	40.1	1.595	
June	66.58	42.3	1.574	70.10	42.9	1.634	74.34	43.6	1.705	53.91	41.5	1.540	64.43	41.3	1.560	64.52	40.5	1.593	
July	66.88	42.3	1.581	71.87	43.4	1.656	76.69	44.2	1.735	63.92	41.4	1.544	65.99	41.9	1.575	65.85	40.9	1.610	
August	71.16	44.2	1.610	73.01	44.3	1.648	76.16	44.0	1.731	65.75	42.2	1.558	66.65	42.4	1.572	67.63	41.8	1.618	
September	72.24	44.1	1.638	73.64	42.9	1.670	75.64	43.9	1.723	67.44	42.6	1.583	68.91	42.8	1.610	69.55	42.0	1.656	
October	76.78	45.7	1.680	73.12	43.6	1.677	82.72	45.6	1.814	69.49	43.0	1.616	71.39	43.8	1.630	70.89	42.3	1.676	
November	77.51	45.7	1.696	73.69	43.4	1.698	81.26	45.6	1.782	70.86	43.1	1.644	72.23	43.8	1.649	71.11	42.2	1.685	
December	81.09	46.9	1.729	76.47	44.1	1.734	82.07	45.9	1.788	73.21	44.1	1.660	74.33	44.4	1.674	73.62	43.0	1.712	
1951: January	81.50	47.0	1.734	76.82	43.6	1.762	82.34	45.9	1.794	73.68	44.2	1.667	74.34	44.2	1.682	71.48	41.9	1.706	
Manufacturing—Continued																			
Machinery (except electrical)—Continued																			
Year and month	Computing machines and cash registers			Typewriters			Service-industry and household machines			Refrigerators and air-conditioning units			Miscellaneous machinery parts			Machine shops (job and repair)			
	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	
1948: Average	\$66.54	41.2	\$1.615	\$55.65	41.1	\$1.354	\$58.98	40.4	\$1.460	\$58.29	39.9	\$1.461	\$57.62	40.1	\$1.437	\$58.77	40.2	\$1.462	
1949: Average	67.87	39.9	1.701	56.04	39.0	1.437	60.66	39.7	1.528	59.98	39.0	1.538	57.59	38.6	1.492	58.70	39.0	1.505	
1950: January	69.60	40.3	1.727	55.77	38.7	1.441	63.24	40.8	1.550	62.16	40.1	1.550	59.64	39.6	1.506	59.86	39.8	1.504	
February	68.84	40.0	1.721	56.41	39.2	1.439	63.87	41.1	1.554	63.65	40.7	1.564	61.18	40.3	1.518	60.79	40.1	1.516	
March	68.05	39.7	1.714	56.47	39.3	1.437	66.14	42.1	1.571	66.12	41.9	1.578	62.01	40.5	1.531	60.42	39.8	1.518	
April	68.56	40.0	1.714	57.41	39.7	1.446	65.88	41.8	1.576	66.29	41.8	1.586	63.05	41.1	1.534	61.92	40.6	1.525	
May	69.20	40.3	1.717	58.19	40.1	1.451	67.20	42.4	1.585	68.50	43.0	1.593	62.42	40.8	1.530	62.72	41.1	1.526	
June	69.58	40.5	1.718	58.33	40.2	1.451	67.55	42.3	1.597	68.02	42.3	1.608	63.22	41.0	1.542	63.86	41.6	1.535	
July	71.07	40.8	1.742	60.63	41.3	1.468	67.17	41.9	1.603	67.67	41.8	1.619	65.21	41.8	1.560	64.89	41.7	1.556	
August	72.19	41.3	1.748	63.90	42.8	1.493	66.93	41.6	1.609	66.22	40.8	1.623	67.54	42.8	1.578	66.06	42.4	1.558	
September	74.56	41.7	1.788	66.60	43.5	1.531	67.90	41.4	1.640	64.95	39.7	1.636	68.68	42.9	1.601	65.79	41.8	1.574	
October	76.00	42.2	1.801	67.14	43.4	1.547	70.60	42.3	1.669	67.73	40.8	1.660	70.46	43.6	1.616	68.79	43.1	1.596	
November	73.89	41.3	1.789	69.61	44.0	1.582	70.26	41.6	1.689	68.45	40.5	1.690	71.30	43.5	1.639	69.54	42.9	1.621	
December	77.38	42.4	1.825	69.07	43.8	1.577	69.30	41.2	1.682	66.04	39.5	1.672	73.86	44.2	1.671	72.96	44.3	1.647	
1951: January	74.90	41.2	1.818	67.47	42.7	1.580	69.16	40.8	1.695	65.49	39.1	1.675	74.83	44.2	1.693	74.01	44.0	1.682	
Manufacturing—Continued																			
Electrical machinery																			
Year and month	Total: Electrical machinery			Electrical generating, transmission, distribution, and industrial apparatus			Motors, generators, transformers, and industrial controls			Electrical equipment for vehicles			Communication equipment			Radios, phonographs, television sets, and equipment			
	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	
1948: Average	\$55.66	40.1	\$1.388	\$58.34	40.4	\$1.444	\$59.55	40.4	\$1.474	\$56.77	39.7	\$1.430	\$52.10	39.8	\$1.309	\$48.53	39.2	\$1.238	
1949: Average	56.96	39.5	1.442	59.61	39.5	1.509	61.30	39.7	1.544	59.16	39.1	1.513	53.56	39.5	1.356	50.68	39.5	1.283	
1950: January	58.44	40.5	1.443	60.46	40.2	1.504	62.02	40.3	1.539	60.19	39.7	1.516	55.56	41.0	1.355	53.05	41.0	1.294	
February	58.26	40.4	1.442	60.04	40.0	1.501	61.16	40.0	1.529	61.38	40.3	1.523	55.32	40.8	1.356	52.62	40.6	1.296	
March	58.44	40.5	1.443	60.51	40.1	1.509	61.79	40.1	1.541	63.73	41.3	1.543	54.82	40.7	1.347	52.54	40.6	1.294	
April	58.71	40.6	1.446	60.97	40.3	1.513	62.65	40.6	1.543	64.78	41.9	1.546	54.23	40.5	1.339	52.21	40.6	1.286	
May	59.28	40.8	1.453	61.85	40.8	1.516	63.19	40.9	1.545	69.12	43.8	1.578	53.77	40.1	1.341	51.82	40.2	1.289	
June	58.62	40.4	1.451	61.95	40.7	1.522	63.05	40.6	1.553	66.40	42.0	1.581	54.11	40.2	1.346	51.93	40.1	1.295	
July	59.44	40.6	1.464	62.52	40.6	1.540	63.94	40.7	1.571	65.78	41.4	1.589	54.43	40.5	1.344	52.37	40.5	1.293	
August	60.15	41.0	1.467	64.25	41.4	1.552	65.30	41.3	1.581	66.41	41.9	1.585	55.11	40.7	1.354	52.89	40.5	1.306	
September	61.48	41.4	1.485	64.85	41.6	1.559	65.45	41.4	1.581	67.33	41.9	1.607	56.69	41.2	1.376	54.44	40.9	1.331	
October	64.12	42.1	1.523	67.35	42.2	1.596	68.36	42.2	1.620	70.44	42.9	1.642	59.02	41.8	1.412	57.03	41.6	1.371	
November	64.33	41.8	1.539	68.48	42.3	1.619	69.13	42.1	1.642	67.89	41.5	1.636	58.83	41.2	1.428	56.32	40.9	1.377	
December	65.35	42.0	1.556	69.28	42.4	1.634	69.51	42.0	1.655	69.97	42.0	1.666	59.86	41.6	1.439	56.98	41.2	1.383	
1951: January	64.38	41.4	1.555	68.33	42.0	1.627	69.47	41.9	1.658	65.85	40.2	1.638	60.07	41.2	1.458	57.55	40.9	1.407	

See footnotes at end of table.

TABLE C-1: Hours and Gross Earnings of Production Workers or Nonsupervisory Employees ¹—Con.

Year and month	Manufacturing—Continued														
	Electrical machinery—Continued						Transportation equipment								
	Telephone and telegraph equipment			Electrical appliances, lamps, and miscellaneous products			Total: Transportation equipment			Automobiles			Aircraft and parts		
	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings
1948: Average	\$59.54	40.7	\$1.463	\$56.08	40.2	\$1.395	\$61.58	39.0	\$1.579	\$61.86	38.4	\$1.611	\$61.21	41.0	\$1.493
1949: Average	61.43	39.3	1.563	56.52	39.5	1.431	64.95	39.2	1.657	65.97	38.9	1.696	63.62	40.6	1.567
1950: January	63.68	39.7	1.604	59.09	40.5	1.459	68.12	40.5	1.682	70.14	40.9	1.715	65.20	40.7	1.602
February	63.63	39.5	1.611	58.78	40.4	1.455	66.58	39.7	1.677	67.64	39.6	1.708	65.69	40.7	1.614
March	62.92	39.2	1.605	58.68	40.3	1.456	67.46	40.2	1.678	69.08	40.4	1.710	65.29	40.5	1.612
April	63.75	39.4	1.618	60.34	40.8	1.479	70.46	41.3	1.706	73.77	42.2	1.748	64.96	40.3	1.612
May	64.23	39.6	1.622	60.60	41.0	1.478	69.62	41.0	1.698	71.66	41.4	1.731	65.61	40.8	1.608
June	64.64	39.8	1.624	57.62	39.6	1.455	72.53	42.0	1.727	75.76	42.8	1.770	65.32	40.7	1.605
July	64.03	39.6	1.617	60.70	40.5	1.489	71.71	41.5	1.728	74.35	42.1	1.766	66.54	41.2	1.615
August	65.44	40.0	1.636	59.34	40.5	1.475	72.87	42.0	1.735	75.21	42.3	1.778	68.94	42.4	1.626
September	67.11	40.7	1.649	62.43	41.4	1.508	72.39	40.9	1.770	73.81	40.6	1.818	71.18	42.7	1.667
October	67.61	40.8	1.657	65.71	42.2	1.557	73.02	41.0	1.781	75.21	41.1	1.830	70.18	41.9	1.675
November	70.39	40.9	1.721	66.18	42.1	1.572	71.78	40.1	1.790	72.76	39.5	1.842	71.78	42.4	1.693
December	71.93	41.6	1.729	67.55	42.3	1.597	75.02	41.4	1.812	76.11	40.9	1.861	74.69	43.2	1.729
1951: January	71.15	41.2	1.727	64.53	41.1	1.570	71.58	39.9	1.794	71.02	38.6	1.840	75.34	43.6	1.728
Manufacturing—Continued															
Transportation equipment—Continued															
Year and month	Aircraft			Aircraft engines and parts			Aircraft propellers and parts			Other aircraft parts and equipment			Ship and boat building and repairing		
	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings
1948: Average	\$60.21	41.1	\$1.465	\$63.40	40.9	\$1.550	\$62.13	39.7	\$1.565	\$63.59	41.0	\$1.551	\$60.68	38.7	\$1.568
1949: Average	62.69	40.5	1.548	65.24	40.7	1.603	66.83	41.0	1.630	65.08	40.4	1.611	61.67	38.0	1.623
1950: January	64.63	40.7	1.588	65.00	40.1	1.621	68.88	42.0	1.640	67.40	40.9	1.648	61.46	37.8	1.626
February	65.00	40.6	1.601	66.34	40.7	1.630	70.18	41.6	1.687	67.81	41.0	1.654	61.16	37.5	1.631
March	64.36	40.3	1.597	66.99	41.1	1.630	66.65	40.2	1.658	67.97	40.8	1.666	62.53	38.2	1.637
April	64.24	40.2	1.598	66.10	40.7	1.624	67.06	40.3	1.664	67.06	40.4	1.660	62.08	37.9	1.638
May	64.68	40.6	1.593	68.35	41.6	1.643	63.85	39.1	1.633	67.73	40.9	1.656	63.21	38.4	1.646
June	64.48	40.5	1.592	67.85	41.5	1.635	67.25	40.2	1.673	67.98	40.9	1.662	62.39	38.3	1.629
July	64.99	40.8	1.593	70.92	42.7	1.661	71.87	42.2	1.703	69.04	41.0	1.684	64.20	38.1	1.685
August	68.29	42.6	1.603	70.94	42.1	1.685	78.68	44.4	1.772	68.22	40.8	1.762	64.84	39.2	1.654
September	70.50	42.7	1.651	74.59	43.8	1.703	77.62	43.9	1.768	67.53	39.7	1.701	62.89	38.3	1.642
October	69.17	42.1	1.643	69.48	39.7	1.750	81.17	44.6	1.820	77.08	43.6	1.768	62.89	38.3	1.642
November	68.72	41.5	1.656	80.82	45.0	1.796	80.67	43.3	1.863	75.91	43.6	1.741	64.47	38.7	1.666
December	71.53	42.3	1.691	83.63	45.4	1.842	88.54	45.9	1.929	79.61	45.0	1.769	66.31	39.8	1.666
1951: January	72.93	43.1	1.692	82.71	45.1	1.834	87.07	45.3	1.922	79.61	44.5	1.789	63.95	38.5	1.661
Manufacturing—Continued															
Transportation equipment—Continued															
Year and month	Shipbuilding and repairing			Boat building and repairing			Railroad equipment			Locomotives and parts			Railroad and street-cars		
	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings
1948: Average	\$61.22	38.7	\$1.582	\$51.59	39.5	\$1.306	\$62.24	40.0	\$1.556	\$63.80	39.6	\$1.611	\$60.82	40.2	\$1.513
1949: Average	61.88	37.8	1.637	54.84	40.5	1.354	63.54	39.2	1.621	65.47	39.3	1.666	61.70	38.9	1.586
1950: January	61.74	37.6	1.642	56.00	40.7	1.376	61.60	38.0	1.621	63.29	38.9	1.627	59.77	37.1	1.611
February	61.55	37.3	1.650	54.79	40.2	1.363	64.89	39.4	1.647	67.48	40.0	1.687	62.07	38.7	1.604
March	63.30	38.2	1.657	52.83	38.7	1.365	64.21	39.2	1.638	67.42	40.2	1.677	60.93	38.2	1.595
April	62.57	37.6	1.664	55.08	40.5	1.360	64.52	39.2	1.646	67.46	40.2	1.678	61.19	38.1	1.606
May	64.02	38.2	1.676	55.34	40.9	1.353	64.99	39.8	1.633	68.59	40.9	1.677	61.02	38.5	1.585
June	62.91	37.9	1.660	56.62	42.0	1.348	64.56	39.2	1.647	67.86	39.5	1.718	61.58	39.0	1.579
July	65.04	37.9	1.716	56.24	40.9	1.375	64.40	39.1	1.647	68.64	40.4	1.699	60.14	37.8	1.591
August	65.62	39.2	1.674	55.70	39.9	1.396	65.29	39.5	1.653	68.68	40.0	1.717	61.85	39.0	1.586
September	63.36	38.1	1.663	55.50	40.1	1.384	68.72	40.4	1.701	73.05	40.9	1.786	64.12	39.8	1.611
October	63.23	38.0	1.664	57.12	41.3	1.383	69.04	40.0	1.726	74.74	41.0	1.823	62.86	38.9	1.616
November	65.08	38.6	1.686	56.54	40.1	1.410	69.51	40.2	1.729	73.53	40.4	1.820	65.36	40.1	1.630
December	66.97	39.7	1.687	57.73	40.6	1.422	72.42	40.8	1.775	76.33	40.6	1.880	67.98	41.0	1.658
1951: January	64.47	38.4	1.679	58.89	40.7	1.447	72.98	41.3	1.767	77.88	41.6	1.872	67.86	41.2	1.647

See footnotes at end of table.

TABLE C-1: Hours and Gross Earnings of Production Workers or Nonsupervisory Employees ¹—Con.

Year and month	Manufacturing—Continued														
	Transportation equipment—Con.			Instruments and related products											
	Other transportation equipment			Total: Instruments and related products			Ophthalmic goods			Photographic apparatus			Watches and clocks		
	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings
1948: Average	\$58.14	40.8	\$1.425	\$53.45	40.1	\$1.333	\$45.54	39.7	\$1.147	\$58.64	40.5	\$1.448	\$48.84	40.1	\$1.218
1949: Average	57.60	39.7	1.451	55.28	39.6	1.296	47.04	39.6	1.188	59.91	39.7	1.509	49.53	39.0	1.270
1950: January	58.67	41.0	1.431	56.49	39.7	1.423	46.88	39.2	1.196	61.60	40.0	1.540	49.86	38.8	1.285
February	60.03	40.4	1.486	56.89	39.9	1.425	47.60	39.6	1.202	61.95	40.1	1.545	50.18	38.9	1.290
March	58.13	39.2	1.483	57.40	40.0	1.435	47.15	39.0	1.209	62.23	40.2	1.548	50.57	38.9	1.300
April	58.58	39.5	1.483	57.52	40.0	1.438	47.63	39.2	1.215	63.05	40.6	1.553	50.01	38.5	1.299
May	60.22	40.2	1.498	58.34	40.4	1.444	49.74	40.6	1.225	63.21	40.7	1.553	49.97	38.2	1.308
June	61.06	40.9	1.493	58.93	40.7	1.448	51.21	41.2	1.243	63.53	40.7	1.561	49.72	38.1	1.305
July	60.09	40.3	1.491	58.98	40.9	1.442	51.13	40.9	1.250	63.32	40.8	1.552	51.25	39.0	1.314
August	60.30	39.8	1.515	61.13	41.7	1.466	52.17	41.6	1.254	65.72	41.7	1.576	51.98	39.8	1.306
September	73.88	46.0	1.606	63.58	42.5	1.496	52.17	41.6	1.254	69.15	42.4	1.631	55.15	40.7	1.355
October	69.86	43.5	1.606	64.77	42.5	1.524	54.13	41.7	1.298	69.22	42.0	1.648	58.06	41.8	1.389
November	70.73	44.4	1.593	65.47	42.4	1.544	54.50	41.6	1.310	69.60	41.8	1.665	59.47	42.0	1.416
December	72.25	44.6	1.620	66.16	42.3	1.564	55.74	42.1	1.324	70.73	42.1	1.680	58.95	41.4	1.424
1951: January	67.01	41.8	1.603	64.82	41.5	1.562	55.64	41.9	1.328	69.97	41.8	1.674	55.06	38.5	1.430
	Manufacturing—Continued														
	Instruments and related products—Continued			Miscellaneous manufacturing industries											
	Professional and scientific instruments			Total: Miscellaneous manufacturing industries			Jewelry, silverware, and plated ware			Jewelry and findings			Silverware and plated ware		
	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings
1948: Average	\$54.78	40.1	\$1.366	\$50.06	40.9	\$1.224	\$57.25	43.6	\$1.313	\$50.47	41.2	\$1.225	\$62.38	45.4	\$1.374
1949: Average	57.01	39.7	1.436	50.23	39.9	1.259	55.06	41.4	1.330	51.33	40.8	1.258	58.30	42.0	1.388
1950: January	58.64	40.0	1.466	51.78	40.2	1.288	55.52	41.9	1.325	51.91	41.0	1.266	58.40	42.6	1.371
February	58.71	40.1	1.464	51.62	40.2	1.284	55.93	41.4	1.351	51.31	40.1	1.270	60.21	42.4	1.420
March	59.55	40.4	1.474	51.82	40.2	1.289	57.25	42.0	1.363	52.09	40.6	1.283	61.42	43.1	1.425
April	59.59	40.4	1.475	51.94	40.2	1.292	56.16	41.2	1.363	51.89	40.1	1.294	59.74	42.1	1.419
May	60.42	40.8	1.481	52.47	40.3	1.302	56.40	41.5	1.359	52.50	40.7	1.290	59.57	42.1	1.415
June	61.08	41.3	1.479	52.69	40.5	1.301	56.00	41.3	1.356	51.55	40.4	1.276	59.74	42.1	1.419
July	60.82	41.4	1.469	52.47	40.3	1.302	56.25	41.3	1.362	50.12	39.4	1.272	61.10	42.7	1.431
August	63.11	42.1	1.499	54.87	41.6	1.319	59.98	43.4	1.382	53.68	42.0	1.278	65.42	44.5	1.470
September	65.73	43.1	1.525	56.04	42.1	1.331	63.48	44.8	1.417	57.06	43.0	1.327	69.56	46.5	1.496
October	66.78	43.0	1.553	56.98	42.3	1.347	65.06	44.9	1.449	59.03	43.5	1.357	70.93	46.3	1.532
November	67.57	42.9	1.575	57.01	42.2	1.351	65.19	44.9	1.452	58.37	43.4	1.345	71.56	46.2	1.549
December	68.16	42.6	1.600	57.38	41.7	1.376	63.03	43.8	1.439	57.35	42.8	1.340	68.19	44.6	1.529
1951: January	67.15	42.1	1.595	57.45	41.3	1.391	62.14	43.3	1.435	57.61	42.9	1.343	65.97	43.2	1.527
	Manufacturing—Continued														
	Miscellaneous manufacturing industries—Continued												Transportation and public utilities		
	Toys and sporting goods			Costume jewelry, buttons, notions			Other miscellaneous manufacturing industries			Class I railroads ⁴			Local railroads and bus lines ⁵		
	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings
1948: Average	\$47.24	40.1	\$1.178	\$45.36	40.0	\$1.134	\$50.39	40.7	\$1.238	\$60.34	46.1	\$1.309	\$61.73	46.1	\$1.339
1949: Average	47.00	39.1	1.202	46.06	39.3	1.172	51.20	40.0	1.280	61.73	43.5	1.419	64.61	44.9	1.439
1950: January	48.06	39.3	1.223	47.24	39.4	1.199	52.83	40.3	1.311	61.69	39.8	1.550	65.11	44.2	1.473
February	48.47	39.6	1.224	47.24	39.3	1.202	52.59	40.3	1.305	62.37	39.8	1.567	65.22	44.4	1.469
March	49.24	39.9	1.234	47.63	39.2	1.215	52.46	40.2	1.305	63.73	41.6	1.572	65.53	44.4	1.476
April	49.88	39.9	1.250	47.54	38.9	1.222	52.55	40.3	1.304	61.09	39.9	1.546	65.90	44.5	1.481
May	49.84	40.0	1.246	47.58	39.0	1.220	53.45	40.4	1.323	61.75	40.2	1.536	66.56	44.8	1.486
June	49.56	39.9	1.242	47.34	38.8	1.220	53.98	40.8	1.323	64.19	41.9	1.532	67.41	45.3	1.488
July	49.27	39.7	1.241	48.09	39.1	1.230	53.67	40.6	1.322	61.19	39.4	1.553	67.47	45.1	1.496
August	51.90	40.9	1.269	50.55	40.7	1.242	55.62	41.6	1.337	65.46	42.7	1.533	66.84	44.8	1.492
September	52.11	41.1	1.268	51.42	41.2	1.248	56.66	42.0	1.349	63.18	40.5	1.560	67.42	45.1	1.495
October	53.42	41.7	1.281	51.40	40.6	1.266	57.75	42.4	1.362	64.54	41.8	1.544	67.77	45.3	1.496
November	53.90	41.4	1.302	52.66	41.3	1.275	57.30	42.1	1.361	64.63	41.4	1.561	68.26	45.6	1.497
December	53.24	40.8	1.305	53.22	41.1	1.295	58.38	41.7	1.400	63.00	40.0	1.575	70.16	46.4	1.512
1951: January	52.75	40.3	1.309	53.63	40.6	1.321	58.56	41.3	1.418	-----	-----	-----	70.50	45.9	1.536

See footnotes at end of table.

TABLE C-1: Hours and Gross Earnings of Production Workers or Nonsupervisory Employees ¹—Con.

Year and month	Transportation and public utilities—Continued														
	Communication												Other public utilities		
	Telephone ⁶			Switchboard operating employees ⁷			Line construction, installation, and maintenance employees ⁸			Telegraph ⁹			Gas and electric utilities		
	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings
1948: Average	\$48.92	39.2	\$1.248							\$60.26	44.7	\$1.348	\$60.74	41.8	\$1.453
1949: Average	51.78	38.5	1.345							62.85	44.7	1.406	63.99	41.5	1.542
1950: January	53.13	38.5	1.380	\$44.58	36.3	\$1.228	\$72.46	42.3	\$1.713	62.84	44.1	1.425	66.09	41.7	1.585
February	53.69	38.6	1.391	45.82	36.8	1.245	72.33	42.2	1.714	62.97	44.1	1.428	65.08	41.4	1.572
March	52.98	38.5	1.376	45.03	36.7	1.227	70.55	41.6	1.696	62.93	44.1	1.427	64.81	41.2	1.573
April	53.44	38.7	1.381	46.19	37.4	1.235	70.76	41.6	1.701	64.13	44.6	1.438	65.17	41.3	1.578
May	53.72	38.9	1.381	46.20	37.5	1.232	71.48	41.8	1.710	65.38	45.4	1.440	65.17	41.3	1.578
June	54.19	39.1	1.386	46.61	37.8	1.233	72.28	42.0	1.721	64.21	44.9	1.430	65.99	41.5	1.590
July	54.96	39.4	1.395	47.73	38.4	1.243	72.96	42.1	1.733	64.13	45.0	1.425	66.52	41.6	1.599
August	54.71	39.3	1.392	47.90	38.6	1.241	72.64	41.7	1.742	63.99	45.0	1.425	65.65	41.5	1.582
September	55.80	39.6	1.409	48.00	38.4	1.250	76.02	42.9	1.772	64.49	44.6	1.446	67.35	41.6	1.619
October	56.18	39.4	1.426	49.00	38.4	1.276	75.91	42.5	1.786	64.74	44.8	1.445	67.93	41.8	1.625
November	54.04	38.0	1.422	44.93	36.0	1.248	74.37	41.5	1.792	64.25	44.4	1.447	68.68	41.8	1.643
December	56.42	39.1	1.443	47.41	37.3	1.271	77.95	42.9	1.817	65.05	44.8	1.452	70.39	42.2	1.668
1951: January	56.34	38.8	1.452	47.78	37.3	1.281	77.53	42.6	1.820	64.57	44.5	1.451	70.31	42.1	1.670
	Transportation and public utilities—Continued														
	Trade														
	Other public utilities—Continued			Wholesale trade			Retail trade (except eating and drinking places)			Retail trade			Department stores and general mail-order houses		
	Electric light and power utilities									General merchandise stores					
1948: Average	\$61.70	42.0	\$1.469	\$55.58	40.9	\$1.359	\$43.85	40.3	\$1.088	\$33.31	36.6	\$0.910	\$37.36	37.7	\$0.991
1949: Average	64.91	41.5	1.564	57.55	40.7	1.414	45.93	40.4	1.137	34.87	36.7	.950	39.31	37.8	1.040
1950: January	66.01	41.7	1.583	58.14	40.6	1.432	46.58	40.4	1.153	35.68	36.9	.967	40.21	37.9	1.061
February	65.28	41.5	1.573	58.27	40.3	1.446	46.26	40.4	1.145	35.44	36.8	.963	39.85	37.7	1.057
March	64.85	41.2	1.574	58.56	40.3	1.453	46.26	40.3	1.148	35.04	36.5	.960	39.57	37.4	1.058
April	64.97	41.2	1.577	58.79	40.1	1.466	46.47	40.2	1.156	34.66	36.1	.960	39.83	37.4	1.065
May	65.09	41.3	1.576	59.11	40.4	1.463	46.94	40.4	1.162	35.49	36.4	.975	40.82	37.8	1.080
June	65.74	41.4	1.588	59.93	40.6	1.476	48.06	40.9	1.175	36.60	37.2	.984	41.86	38.3	1.093
July	68.13	41.8	1.630	61.10	40.9	1.494	48.99	41.2	1.189	37.32	37.7	.990	42.58	38.6	1.103
August	66.39	41.6	1.603	60.90	40.9	1.489	48.99	41.1	1.192	37.06	37.4	.991	42.33	38.2	1.108
September	68.60	41.6	1.649	60.93	40.7	1.497	48.48	40.4	1.200	36.11	36.4	.992	42.03	37.8	1.112
October	69.18	41.8	1.655	61.68	40.9	1.508	48.32	40.3	1.199	36.01	36.3	.992	42.03	37.9	1.109
November	69.97	41.6	1.682	61.98	40.8	1.519	47.92	40.0	1.198	35.24	36.0	.979	41.24	37.8	1.091
December	71.57	41.9	1.708	63.60	41.3	1.540	47.86	40.7	1.176	35.81	38.1	.940	43.20	40.6	1.064
1951: January	71.49	42.1	1.698	63.44	40.8	1.555	49.82	40.5	1.230	37.46	36.8	1.018	43.55	38.3	1.137
	Trade—Continued														
	Retail trade—Continued									Other retail trade					
	Food and liquor stores			Automotive and accessories dealers			Apparel and accessories stores			Furniture and appliance stores			Lumber and hardware-supply stores		
1948: Average	\$47.15	40.3	\$1.170	\$56.07	45.4	\$1.235	\$39.60	36.5	\$1.085	\$51.15	42.7	\$1.198	\$49.37	43.5	\$1.135
1949: Average	49.93	40.2	1.242	58.92	45.6	1.292	40.66	36.7	1.108	53.30	43.4	1.228	51.84	43.6	1.189
1950: January	50.68	40.0	1.267	58.72	45.8	1.282	41.07	36.7	1.119	54.81	43.6	1.257	51.58	43.2	1.194
February	50.85	40.1	1.268	57.76	45.3	1.275	40.07	36.9	1.086	53.25	43.4	1.227	51.72	43.1	1.200
March	50.76	40.0	1.269	59.22	45.8	1.293	39.64	36.5	1.088	53.30	43.3	1.231	51.89	43.1	1.204
April	50.93	40.1	1.270	60.36	45.8	1.318	40.17	35.9	1.109	54.21	43.4	1.249	52.84	43.6	1.212
May	50.81	40.1	1.267	60.50	45.9	1.318	40.37	36.5	1.106	54.89	43.6	1.259	54.08	43.9	1.232
June	51.82	40.8	1.270	62.29	45.9	1.357	40.92	36.8	1.112	55.67	43.7	1.274	55.06	44.4	1.240
July	53.37	41.5	1.286	63.71	45.7	1.394	40.77	36.9	1.105	56.16	43.5	1.291	55.55	44.3	1.254
August	53.04	41.5	1.278	63.66	45.6	1.396	40.70	37.0	1.100	57.03	43.5	1.311	55.91	44.2	1.265
September	52.12	40.4	1.290	63.52	45.6	1.393	40.98	36.2	1.132	58.07	43.4	1.338	56.36	44.1	1.278
October	51.80	40.0	1.295	63.94	45.9	1.393	40.95	36.3	1.128	57.68	43.5	1.326	56.93	44.1	1.291
November	52.40	40.0	1.310	63.07	45.8	1.377	40.65	36.1	1.126	57.90	43.5	1.331	55.98	43.6	1.284
December	52.91	40.3	1.313	63.52	45.8	1.387	42.00	37.0	1.135	59.80	44.2	1.353	56.16	43.6	1.288
1951: January	53.24	40.0	1.331	64.62	45.7	1.414	43.25	37.0	1.169	58.16	43.6	1.334	57.25	43.7	1.310

See footnotes at end of table.

TABLE C-1: Hours and Gross Earnings of Production Workers or Nonsupervisory Employees ¹—Con.

Year and month	Finance ¹⁰			Service									
	Banks and trust companies	Security dealers and exchanges	Insurance carriers	Hotels, year-round ¹¹			Laundries			Cleaning and dyeing plants			Motion-picture production and distribution ¹⁰
				Avg. wkly. earnings	Avg. wkly. earnings	Avg. wkly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	Avg. wkly. earnings	Avg. wkly. hours	Avg. hrly. earnings	
1948: Average	\$41.51	\$66.83	\$54.93	\$31.41	44.3	\$0.709	\$34.23	41.9	\$0.817	\$39.50	41.1	\$0.961	\$92.27
1949: Average	43.64	68.32	56.47	32.84	44.2	.743	34.98	41.5	.843	40.71	41.2	.988	92.17
1950: January	45.29	75.78	57.78	33.06	43.9	.753	35.15	41.5	.847	40.75	41.2	.989	87.82
February	45.52	77.61	57.68	33.51	43.8	.765	34.39	40.8	.843	33.26	39.9	.984	88.94
March	45.37	80.08	57.19	33.07	43.8	.755	34.56	41.0	.843	40.40	40.6	.995	91.01
April	45.83	83.53	58.16	33.26	44.0	.756	34.85	41.0	.850	4 0.48	40.4	1.002	91.23
May	45.54	82.70	58.02	33.34	44.1	.756	35.74	41.7	.857	4 3.69	43.0	1.016	94.09
June	45.42	81.31	58.06	33.33	43.8	.761	36.33	42.0	.865	44.03	43.0	1.024	94.73
July	46.34	79.88	59.09	33.51	43.8	.765	35.61	41.5	.858	4 2.02	41.4	1.015	91.64
August	46.36	79.09	58.81	33.92	44.0	.771	34.83	40.6	.858	40.16	40.0	1.004	90.70
September	46.75	79.29	58.20	34.30	43.8	.783	35.93	41.3	.870	42.56	41.6	1.023	93.44
October	47.78	84.94	58.91	34.67	44.0	.788	35.79	41.0	.873	42.15	41.0	1.028	95.08
November	48.18	85.62	59.27	34.74	43.7	.795	35.86	40.8	.879	42.23	41.2	1.025	95.68
December	48.95	88.84	60.69	35.29	44.0	.802	36.33	41.1	.884	42.37	41.3	1.026	97.70
1951: January	49.55	91.43	61.53	34.94	43.3	.807	36.61	40.9	.895	43.12	41.3	1.044	97.09

¹ These figures are based on reports from cooperating establishments covering both full- and part-time employees who worked during, or received pay for, the pay period ending nearest the 15th of the month. For the mining, manufacturing, laundries, and cleaning and dyeing plants industries, data relate to production and related workers only. For the remaining industries, unless otherwise noted, data relate to nonsupervisory employees and working supervisors. All series are available upon request to the Bureau of Labor Statistics. Such requests should specify which industry series are desired. Data for the three current months are subject to revision without notation; revised figures for earlier months will be identified by asterisks the first month they are published.

² Includes: ordnance and accessories; lumber and wood products (except furniture); furniture and fixtures; stone, clay, and glass products; primary metal industries; fabricated metal products (except ordnance, machinery, and transportation equipment); machinery (except electrical); electrical machinery; transportation equipment; instruments and related products; miscellaneous manufacturing industries.

³ Includes: food and kindred products; tobacco manufactures; textile-mill products; apparel and other finished textile products; paper and allied products; printing, publishing, and allied industries; chemicals and allied products; products of petroleum and coal; rubber products; leather and leather products.

⁴ Data relate to hourly rated employees reported by individual railroads (exclusive of switching and terminal companies) to the Interstate Commerce Commission. Annual averages include any retroactive payments made, which are excluded from monthly averages.

⁵ Data include privately and municipally operated local railways and bus lines.

⁶ Through May 1949 the averages relate mainly to the hours and earnings of employees subject to the Fair Labor Standards Act. Beginning with June 1949 the averages relate to the hours and earnings of nonsupervisory employees. Data for June comparable with the earlier series are \$51.47, 38.5 hours, and \$1.337.

⁷ Data include employees such as switchboard operators, service assistants, operating-room instructors, and pay-station attendants.

⁸ Data include employees such as central office craftsmen; installation and exchange repair craftsmen; line, cable, and conduit craftsmen; and laborers.

⁹ Data relate mainly to land-line employees, excluding employees compensated on a commission basis, general and divisional headquarters personnel, trainees in school, and messengers.

¹⁰ Data on average weekly hours and average hourly earnings are not available.

¹¹ Money payments only; additional value of board, room, uniforms, and tips, not included.

TABLE C-2: Gross Average Weekly Earnings of Production Workers in Selected Industries, in Current and 1939 Dollars ¹

Year and month	Manufacturing		Bituminous-coal mining		Laundries		Year and month	Manufacturing		Bituminous-coal mining		Laundries	
	Current dollars	1939 dollars	Current dollars	1939 dollars	Current dollars	1939 dollars		Current dollars	1939 dollars	Current dollars	1939 dollars	Current dollars	1939 dollars
1939: Average	\$23.86	\$23.86	\$23.88	\$23.88	\$17.69	\$17.69	1950: May	\$57.54	\$33.78	\$68.37	\$40.14	\$35.74	\$20.98
1941: Average	29.58	27.95	30.86	29.16	19.00	17.95	June	58.85	34.37	69.92	40.83	36.33	21.22
1946: Average	43.82	31.27	58.03	41.41	30.30	21.62	July	59.21	34.22	69.68	40.27	35.61	20.58
1948: Average	54.14	31.43	72.12	41.87	34.23	19.87	August	60.32	34.58	71.04	40.72	34.83	19.97
1949: Average	54.92	32.28	63.28	37.20	34.98	20.56	September	60.64	34.52	71.92	40.94	35.93	20.45
1950: January	56.29	33.27	47.36	27.99	35.15	20.77	October	61.99	35.09	72.99	41.32	35.79	20.26
February	56.37	33.37	49.83	29.50	34.39	20.36	November	62.23	35.07	73.27	41.29	35.86	20.21
March	56.53	33.37	78.75	46.48	34.56	20.40	December	63.84	35.49	77.30	42.97	36.33	20.20
April	56.93	33.58	72.79	42.94	34.85	20.56	1951: January ²	63.67	34.87	76.96	42.15	36.61	20.05

¹ These series indicate changes in the level of weekly earnings prior to and after adjustment for changes in purchasing power as determined from the Bureau's Consumers' Price Index, the year 1939 having been selected for the base period. Estimates of World War II and postwar understatement by

the Consumers' Price Index were not included. See the Monthly Labor Review, March 1947, p. 493. Data from January 1939 are available upon request to the Bureau of Labor Statistics.

² Preliminary. See note, table C-3.

TABLE C-3: Gross and Net Spendable Average Weekly Earnings of Production Workers in Manufacturing Industries, in Current and 1939 Dollars ¹

Period	Gross average weekly earnings		Net spendable average weekly earnings				Period	Gross average weekly earnings		Net spendable average weekly earnings			
	Amount	Index (1939=100)	Worker with no dependents		Worker with 3 dependents			Amount	Index (1939=100)	Worker with no dependents		Worker with 3 dependents	
			Current dollars	1939 dollars	Current dollars	1939 dollars				Current dollars	1939 dollars	Current dollars	1939 dollars
1941: January	\$26.64	111.7	\$25.41	\$25.06	\$26.37	\$26.00	1950: January	\$56.29	235.9	\$48.94	\$28.92	\$54.70	\$32.33
1945: January	47.50	199.1	39.40	30.81	45.17	35.33	February	56.37	236.3	49.00	29.01	54.76	32.42
July	45.45	190.5	37.80	29.04	43.57	33.47	March	56.53	236.9	49.13	29.00	54.90	32.41
1946: June	43.31	181.5	37.30	27.81	42.78	31.90	April	56.93	238.6	49.46	29.18	55.23	32.58
1939: Average	23.86	100.0	23.58	23.58	23.62	23.62	May	57.54	241.2	49.95	29.33	55.74	32.73
1940: Average	25.20	105.6	24.69	24.49	24.95	24.75	June	58.85	246.6	51.03	29.80	56.86	33.21
1941: Average	29.58	124.0	28.05	26.51	29.28	27.67	July	59.21	248.2	51.32	29.66	57.16	33.03
1942: Average	36.65	153.6	31.77	27.11	36.28	30.96	August	60.32	252.8	52.24	29.95	58.11	33.31
1943: Average	43.14	180.8	36.01	28.97	41.39	33.30	September	60.64	254.1	52.50	29.89	58.38	33.24
1944: Average	46.08	193.1	38.29	30.32	44.06	34.89	October	61.99	259.8	52.16	29.53	59.20	33.51
1945: Average	44.39	186.0	36.97	28.61	42.74	33.08	November	62.23	260.8	52.35	29.50	59.40	33.47
1946: Average	43.82	183.7	37.72	26.92	43.20	30.83	December	63.84	267.6	53.64	29.82	60.72	33.76
1947: Average	49.97	209.4	42.76	26.70	48.24	30.12	1951: January ²	63.67	266.8	53.42	29.26	60.48	33.12
1948: Average	54.14	226.9	47.43	27.54	53.17	30.87							
1949: Average	54.92	230.2	48.09	28.27	53.83	31.64							

¹ Net spendable average weekly earnings are obtained by deducting from gross average weekly earnings, social security and income taxes for which the specified type of worker is liable. The amount of income tax liability depends, of course, on the number of dependents supported by the worker as well as on the level of his gross income. Net spendable earnings have therefore, been computed for 2 types of income-receivers: (1) A worker with no dependents; (2) A worker with 3 dependents.

The computation of net spendable earnings for both factory worker with no dependents and the factory worker with 3 dependents are based upon the gross average weekly earnings for all production workers in manufacturing industries without direct regard to marital status and family composition.

The primary value of the spendable series is that of measuring relative changes in disposable earnings for 2 types of income-receivers. That series does not, therefore, reflect actual differences in levels of earnings for workers of varying age, occupation, skill, family composition, etc. Comparable data from January 1939 are available upon request to the Bureau of Labor Statistics.

² Preliminary.

NOTE: Data for series based on 1939 dollars revised beginning January 1950 to conform to the Adjusted Series Consumers' Price Index.

Monthly data for 1950, based on Old Series Consumers' Price Index, are available upon request.

TABLE C-4: Average Hourly Earnings, Gross and Exclusive of Overtime, of Production Workers in Manufacturing Industries ¹

Period	Manufacturing			Durable goods		Nondurable goods		Period	Manufacturing			Durable goods		Nondurable goods	
	Gross amount	Excluding overtime		Gross	Excluding overtime	Gross	Excluding overtime		Gross amount	Excluding overtime		Gross	Excluding overtime	Gross	Excluding overtime
		Amount	Index (1939=100)							Amount	Index (1939=100)				
1941: Average	\$0.729	\$0.702	110.9	\$0.808	\$0.770	\$0.640	\$0.625	1950: March	\$1.424	\$1.385	218.8	\$1.486	\$1.443	\$1.353	\$1.319
1942: Average	.853	.805	127.2	.947	.881	.723	.698	April	1.434	1.392	219.9	1.499	1.449	1.355	1.323
1943: Average	.961	.894	141.2	1.059	.976	.803	.763	May	1.442	1.399	221.0	1.509	1.459	1.358	1.324
1944: Average	1.019	.947	149.6	1.117	1.029	.861	.814	June	1.453	1.404	221.8	1.522	1.465	1.365	1.326
1945: Average	1.023	² .963	152.1	1.111	² 1.042	.904	² .858	July	1.462	1.413	223.2	1.533	1.478	1.375	1.333
1946: Average	1.086	1.051	166.0	1.156	1.122	1.015	.981	August	1.464	1.408	222.4	1.539	1.475	1.274	1.328
1947: Average	1.237	1.198	189.3	1.292	1.250	1.171	1.133	September	1.479	1.424	225.0	1.562	1.499	1.379	1.334
1948: Average	1.350	1.310	207.0	1.410	1.366	1.278	1.241	October	1.501	1.442	227.8	1.577	1.508	1.404	1.358
1949: Average	1.401	1.367	216.0	1.469	1.434	1.325	1.292	November	1.514	1.456	230.0	1.587	1.521	1.419	1.372
1950: January	1.418	1.380	218.0	1.485	1.445	1.343	1.307	December ²	1.542	1.478	233.5	1.617	1.544	1.443	1.393
February	1.420	1.382	218.3	1.483	1.442	1.350	1.316	1951: January ³	1.553	1.496	236.3	1.627	1.562	1.458	1.410

¹ Overtime is defined as work in excess of 40 hours per week and paid for at time and one-half. The computation of average hourly earnings exclusive of overtime makes no allowance for special rates of pay for work done on holidays. Comparable data from January 1941 are available upon request to the Bureau of Labor Statistics.

² Eleven-month average. August 1945 excluded because of VJ-holiday period.

³ Preliminary.

D: Prices and Cost of Living

TABLE D-1: Consumers' Price Index¹ for Moderate-Income Families in Large Cities, by Group of Commodities

[1935-39=100]

Year and month	All items ²	Food	Apparel	Rent ²	Fuel, electricity, and refrigeration ³				Housefurnishings	Miscellaneous ⁴
					Total	Gas and electricity	Other fuels	Ice		
1913: Average	70.7	79.9	69.3	92.2	61.9	(⁵)	(⁵)	(⁵)	59.1	50.9
1914: July	71.7	81.7	69.8	92.2	62.3	(⁵)	(⁵)	(⁵)	60.8	52.0
1918: December	118.0	149.6	147.9	97.1	90.4	(⁵)	(⁵)	(⁵)	121.2	83.1
1920: June	149.4	185.0	209.7	119.1	104.8	(⁵)	(⁵)	(⁵)	169.7	100.7
1929: Average	122.5	132.5	115.3	141.4	112.5	(⁵)	(⁵)	(⁵)	111.7	104.6
1932: Average	97.6	86.5	90.8	116.9	103.4	(⁵)	(⁵)	(⁵)	85.4	101.7
1939: Average	99.4	95.2	100.5	104.3	99.0	98.9	99.1	100.2	101.3	100.7
August 15	98.6	93.5	100.3	104.3	97.5	99.0	95.2	100.0	100.6	100.4
1940: Average	100.2	96.6	101.7	104.6	99.7	98.0	101.9	100.4	100.5	101.1
1941: Average	105.2	105.5	106.3	106.2	102.2	97.1	108.3	104.1	107.3	104.0
January 1	100.8	97.6	101.2	105.0	100.8	97.5	105.4	100.3	100.2	101.8
December 15	110.5	113.1	114.8	108.2	104.1	96.7	113.1	105.1	116.8	107.7
1942: Average	116.5	123.9	124.2	108.5	105.4	96.7	115.1	110.0	122.2	110.9
1943: Average	123.6	138.0	129.7	108.0	107.7	96.1	120.7	114.2	125.6	115.8
1944: Average	125.5	136.1	138.8	108.2	109.8	95.8	126.0	115.8	136.4	121.3
1945: Average	128.4	139.1	145.9	108.3	110.3	95.0	128.3	115.9	145.8	124.1
August 15	129.3	140.9	146.4	(⁵)	111.4	95.2	131.0	115.8	146.0	124.5
1946: Average	139.3	159.6	160.2	108.6	112.4	92.4	136.9	115.9	159.2	128.8
June 15	133.3	145.6	157.2	108.5	110.5	92.1	133.0	115.1	156.1	127.9
November 15	152.2	187.7	171.0	(⁵)	114.8	91.8	142.6	117.9	171.0	132.5
1947: Average	159.2	193.8	185.8	111.2	121.1	92.0	156.1	125.9	184.4	139.9
December 15	167.0	206.9	191.2	115.4	127.8	92.6	171.1	129.8	191.4	144.4
1948: Average	171.2	210.2	198.0	117.4	133.9	94.3	183.4	135.2	195.8	149.9
December 15	171.4	205.0	200.4	119.5	137.8	95.3	191.3	138.4	198.6	154.0
1949: Average	169.1	201.9	190.1	120.8	137.5	96.7	187.7	141.7	189.0	154.6
December 15	167.5	197.3	185.8	122.2	139.7	97.2	191.6	145.5	185.4	155.5
1950: Average	171.9	204.4	187.7	131.0	140.6	96.8	194.1	147.8	190.2	156.5
January 15	168.2	196.0	185.0	129.4	140.0	96.7	193.1	145.5	184.7	155.1
February 15	167.9	194.9	184.9	129.7	140.1	96.9	192.5	145.5	185.2	155.1
March 15	168.4	196.6	185.1	129.8	140.3	96.9	193.1	146.8	185.3	155.0
April 15	168.5	197.3	184.9	130.1	140.3	97.0	192.8	146.8	185.4	154.7
May 15	169.3	199.8	184.7	130.6	138.8	96.9	187.6	146.8	185.0	155.1
June 15	170.2	203.1	184.6	130.9	139.1	96.8	189.0	147.0	184.8	154.6
July 15	172.0	208.2	184.5	131.3	139.4	96.9	189.9	147.6	186.1	155.2
August 15	173.4	209.9	185.7	131.6	140.2	96.8	192.9	147.6	189.1	156.8
September 15	174.6	210.0	189.8	131.8	141.2	96.9	196.1	148.1	194.2	157.8
October 15	175.6	210.6	193.0	132.0	142.0	96.8	199.2	149.9	198.7	158.3
November 15	176.4	210.8	194.3	132.5	142.5	96.8	200.8	151.3	201.1	159.2
December 15	178.8	216.3	195.5	132.9	142.8	96.8	201.7	151.5	203.2	160.6
1951: January 15	181.5	221.9	198.5	133.2	143.3	97.2	202.3	152.0	207.4	162.1
January 15	<i>181.6</i>	<i>221.6</i>	<i>199.7</i>	<i>126.0</i>	<i>144.5</i>	<i>97.2</i>	<i>201.8</i>	<i>152.9</i>	<i>208.9</i>	<i>163.7</i>
February 15	183.8	226.0	202.0	134.0	143.9	97.2	204.5	152.8	209.7	163.2
February 15	<i>184.2</i>	<i>226.0</i>	<i>203.2</i>	<i>126.8</i>	<i>145.7</i>	<i>97.2</i>	<i>204.7</i>	<i>153.5</i>	<i>211.4</i>	<i>164.8</i>

¹ The "Consumers' price index for moderate-income families in large cities" formerly known as the "Cost-of-living index" measures average changes in retail prices of selected goods, rents, and services purchased by wage earners and lower-salaried workers in large cities. Until January 1950, time-to-time changes in retail prices were weighted by 1934-36 average expenditures of urban families. Weights used beginning January 1950 have been adjusted to current spending patterns.

Bureau of Labor Statistics Bulletin 699, Changes in Cost of Living in Large Cities in the United States, 1913-41, contains a detailed description of methods used in constructing this index. Additional information on the Consumers' Price Index is given in a compilation of reports published by the Office of Economic Stabilization, Report of the President's Committee on the Cost of Living. See also General Note, below.

Mimeographed tables are available upon request showing indexes for each of the cities regularly surveyed by the Bureau and for each of the major groups of living essentials. Indexes for all large cities combined are available since 1913. The beginning date for series of indexes for individual cities varies from city to city but indexes are available for most of the 34 cities since World War I.

² The rent component in the old series did not reflect the differences between the rents at which newly constructed or converted dwellings enter the rental market and the rents for comparable existing housing.

Until 1950, no accurate measure of the resulting "new unit bias" was possible; but on the basis of comprehensive housing surveys conducted in early 1950, the Bureau has calculated the effect of the understatement from 1940 to 1950. The improved "rent" and "all items" indexes have been corrected beginning with January 1950. The old indexes have not been corrected. A complete description of the procedures used for estimating this factor and the estimates for each city are included in an article in this issue of the Monthly Labor Review.

³ The group index formerly entitled "Fuel, electricity, and ice" is now designated "Fuel, electricity, and refrigeration." Indexes are comparable with those previously published for "Fuel, electricity, and ice." The subgroup "Other fuels and ice" has been discontinued; separate indexes are presented for "Other fuels" and "Ice."

⁴ The Miscellaneous group covers transportation (such as automobiles and their upkeep and public transportation fares); medical care (including professional care and medicines); household operation (covering supplies and different kinds of paid services); recreation (that is, newspapers, motion pictures, radio, television, and tobacco products); personal care (barber, and beauty-shop service and toilet articles); etc.

⁵ Data not available.

⁶ Rents not surveyed this month.

GENERAL NOTE:—In tables D-1 through D-6, the indexes beginning with January 1950 are the Consumers' Price Indexes adjusted to incorporate certain improvements, as announced by the Bureau on October 24, 1950. Technical notes describing the adjustments are published in this issue of the Monthly Labor Review (p. 421). The old series of indexes for 1951 are shown in italics for reference.

TABLE D-2: Consumers' Price Index for Moderate-Income Families, by City,¹ for Selected Periods

[1935-39=100]

City	Feb. 15, 1951	Jan. 15, 1951	Dec. 15, 1950	Nov. 15, 1950	Oct. 15, 1950	Sept. 15, 1950	Aug. 15, 1950	July 15, 1950	June 15, 1950	May 15, 1950	Apr. 15, 1950	Mar. 15, 1950	Feb. 15, 1950	Jan. 15, 1950	Feb. 15, 1950 ²
Average.....	183.8	181.5	178.8	176.4	175.6	174.6	173.4	172.0	170.2	169.3	168.5	168.4	167.9	168.2	184.2
Atlanta, Ga.....	187.5	(3)	(2)	4 180.7	(3)	(3)	4 177.9	(3)	(3)	171.7	(3)	(3)	170.8	(3)	186.7
Baltimore, Md.....	(3)	(3)	183.1	(3)	(3)	180.6	(3)	(3)	174.7	(3)	(3)	172.9	(3)	(3)	(3)
Birmingham, Ala.....	189.8	188.2	183.9	180.8	179.3	179.7	176.8	175.4	171.6	170.5	169.9	170.0	168.2	169.0	189.6
Boston, Mass.....	175.5	173.5	171.2	169.7	169.5	168.2	168.1	167.1	165.5	163.6	163.0	162.9	161.9	162.4	176.4
Buffalo, N. Y.....	(3)	180.8	(3)	(3)	174.1	(3)	(3)	171.5	(3)	(3)	167.4	(3)	(3)	166.6	(3)
Chicago, Ill.....	188.5	185.4	183.4	180.6	180.3	179.5	179.0	177.3	175.1	174.5	172.9	173.0	172.4	172.8	189.7
Cincinnati, Ohio.....	183.9	182.3	178.4	176.1	176.1	175.9	173.9	172.0	170.5	169.7	168.1	168.6	168.1	168.5	184.7
Cleveland, Ohio.....	186.2	(3)	(3)	179.6	(3)	(3)	176.5	(3)	(3)	171.1	(3)	(3)	170.3	(3)	186.4
Denver, Colo.....	(3)	184.9	(3)	(3)	178.1	(3)	(3)	172.6	(3)	(3)	169.7	(3)	(3)	168.8	(3)
Detroit, Mich.....	186.2	184.2	181.3	179.8	179.1	177.5	175.9	175.0	173.5	172.1	170.7	170.1	169.5	169.7	188.0
Houston, Tex.....	191.0	190.1	186.1	183.0	182.3	182.2	180.6	177.5	175.8	175.3	175.1	175.9	175.0	175.5	190.5
Indianapolis, Ind.....	(3)	184.4	(3)	(2)	178.9	(3)	(3)	174.4	(2)	(3)	171.4	(2)	(3)	171.2	(3)
Jacksonville, Fla.....	(3)	(3)	185.6	(3)	(3)	181.7	(3)	(3)	176.3	(3)	(3)	175.6	(3)	(3)	(3)
Kansas City, Mo.....	(3)	175.6	(3)	(3)	169.0	(3)	(3)	166.9	(3)	(3)	163.2	(3)	(3)	162.5	(3)
Los Angeles, Calif.....	184.1	181.3	178.5	176.2	174.8	173.2	172.1	170.1	169.3	169.5	169.5	169.1	168.9	169.4	182.0
Manchester, N. H.....	(3)	180.6	(3)	(3)	176.6	(3)	(3)	172.1	(3)	(3)	168.0	(3)	(3)	168.0	(3)
Memphis, Tenn.....	(3)	(3)	182.7	(3)	(3)	179.2	(3)	(3)	172.7	(3)	(3)	(3)	172.8	(3)	(3)
Milwaukee, Wis.....	187.5	(3)	(3)	180.3	(3)	(3)	176.6	(3)	(3)	172.0	(2)	(3)	168.6	(3)	188.1
Minneapolis, Minn.....	(3)	(3)	177.7	(3)	(3)	172.8	(3)	(3)	169.1	(3)	(4)	167.4	(3)	(3)	(3)
Mobile, Ala.....	(3)	(3)	177.1	(3)	(3)	173.9	(3)	(3)	168.2	(3)	(2)	167.4	(3)	(3)	(3)
New Orleans, La.....	187.9	(3)	(3)	180.1	(2)	(2)	179.6	(3)	(3)	174.4	(3)	(3)	173.5	(2)	188.6
New York, N. Y.....	180.8	177.8	175.4	173.2	172.4	171.7	169.7	169.8	167.0	166.1	165.9	165.5	165.1	164.8	180.8
Norfolk, Va.....	187.1	(3)	(3)	179.3	(3)	(3)	178.8	(3)	(3)	173.6	(3)	(3)	170.3	(3)	186.4
Philadelphia, Pa.....	185.4	181.0	178.1	174.1	173.8	173.1	171.8	170.4	169.1	167.4	166.7	166.8	165.9	166.4	185.5
Pittsburgh, Pa.....	185.6	183.4	180.2	178.7	178.8	177.4	176.0	172.9	171.8	171.0	169.9	169.5	169.4	170.0	186.7
Portland, Maine.....	(3)	(3)	171.3	(3)	(3)	168.1	(3)	(3)	164.4	(3)	(3)	163.7	(3)	(3)	(3)
Portland, Oreg.....	(3)	190.4	(3)	(3)	184.3	(3)	(3)	179.3	(3)	(3)	175.8	(3)	(3)	174.9	(3)
Richmond, Va.....	(3)	179.8	(3)	(3)	173.8	(3)	(3)	170.0	(3)	(3)	164.7	(3)	(3)	164.6	(3)
St. Louis, Mo.....	(3)	(3)	178.8	(3)	(3)	174.0	(2)	(3)	168.8	(3)	(3)	168.0	(3)	(3)	(3)
San Francisco, Calif.....	(3)	(3)	181.5	(3)	(3)	175.3	(3)	(3)	172.4	(3)	(3)	172.9	(3)	(3)	(3)
Savannah, Ga.....	(3)	189.2	(3)	(3)	183.6	(3)	(3)	177.7	(3)	(3)	173.4	(3)	(3)	172.3	(3)
Scranton, Pa.....	180.8	(3)	(3)	173.1	(2)	(2)	171.2	(2)	(3)	166.6	(3)	(3)	164.0	(3)	183.4
Seattle, Wash.....	188.3	(3)	(3)	183.1	(3)	(3)	177.3	(3)	(3)	174.4	(3)	(3)	174.3	(2)	186.8
Washington, D. C.....	179.2	(3)	(3)	173.5	(3)	(3)	170.8	(3)	(3)	166.8	(3)	(3)	166.0	(3)	179.3

¹ The indexes are based on time-to-time changes in the cost of goods and services purchased by moderate-income families in large cities. They do not indicate whether it costs more to live in one city than in another.

² See footnote 2, table D-1, p. 494.

³ Through June 1947, consumers' price indexes were computed monthly for 21 cities and in March, June, September, and December for 13 additional cities; beginning July 1947 indexes were computed monthly for 10 cities and once every 3 months for 24 additional cities according to a staggered schedule.

⁴ Corrected.

TABLE D-3: Consumers' Price Index for Moderate-Income Families, by City and Group of Commodities¹

[1935-39=100]

City	Food		Apparel		Rent		Fuel, electricity, and refrigeration				Housefurnishings		Miscellaneous	
	Feb. 15, 1951	Jan. 15, 1951	Feb. 15, 1951	Jan. 15, 1951	Feb. 15, 1951	Jan. 15, 1951	Total		Gas and electricity		Feb. 15, 1951	Jan. 15, 1951	Feb. 15, 1951	Jan. 15, 1951
							Feb. 15, 1951	Jan. 15, 1951	Feb. 15, 1951	Jan. 15, 1951				
Average.....	226.0	221.9	202.0	198.5	134.0	133.2	143.9	143.3	97.2	97.2	209.7	207.4	163.2	162.1
Atlanta, Ga.....	224.0	223.4	211.2	(1)	146.4	(2)	155.9	154.4	83.3	83.3	210.0	(1)	168.5	(1)
Baltimore, Md.....	237.1	231.8	(1)	(1)	(2)	(2)	147.6	146.8	115.3	115.5	(1)	(1)	(1)	(1)
Birmingham, Ala.....	220.8	219.8	213.3	210.7	192.8	(2)	138.6	137.6	79.6	79.6	198.4	196.6	158.7	157.8
Boston, Mass.....	213.8	209.1	187.1	184.4	(2)	(2)	160.0	159.7	117.2	117.1	199.5	197.7	158.3	157.7
Buffalo, N. Y.....	217.9	215.5	(1)	193.2	(2)	136.9	153.8	152.1	110.0	110.0	(1)	206.1	(1)	166.8
Chicago, Ill.....	232.9	225.1	204.6	202.3	(2)	(2)	138.2	137.5	83.5	83.5	195.7	194.0	164.1	163.6
Cincinnati, Ohio.....	226.9	223.7	203.6	200.9	(2)	(2)	150.8	150.8	101.2	101.2	198.4	194.1	162.9	162.8
Cleveland, Ohio.....	232.7	227.4	203.2	(1)	143.3	(2)	150.0	150.0	105.6	105.6	190.9	(1)	158.6	(1)
Denver, Colo.....	229.0	227.8	(1)	200.9	(2)	159.2	113.7	113.3	69.7	69.7	(1)	241.5	(1)	156.9
Detroit, Mich.....	228.3	223.7	195.5	192.6	(2)	137.8	154.1	154.1	90.4	90.4	225.9	223.4	173.3	172.6
Houston, Tex.....	235.6	236.0	218.6	216.8	167.4	(2)	98.6	98.6	82.1	82.1	202.9	200.1	166.5	165.6
Indianapolis, Ind.....	220.6	218.6	(1)	196.2	(2)	141.1	163.9	163.9	86.6	86.6	(1)	195.2	(1)	168.4
Jacksonville, Fla.....	231.5	229.0	(1)	(1)	(2)	(2)	153.4	153.0	102.7	102.7	(1)	(1)	(1)	(1)
Kansas City, Mo.....	210.5	208.5	(1)	194.0	(2)	142.5	128.9	129.4	68.3	68.6	(1)	191.1	(1)	163.9
Los Angeles, Calif.....	226.9	226.3	196.9	191.3	159.4	(2)	98.7	98.7	93.0	93.0	201.6	199.9	160.7	159.5
Manchester, N. H.....	218.9	215.1	(1)	188.9	(2)	126.7	162.2	162.2	103.3	103.3	(1)	210.6	(1)	155.3
Memphis, Tenn.....	230.8	227.6	(1)	(1)	(2)	(2)	141.5	141.4	77.0	77.0	(1)	(1)	(1)	(1)
Milwaukee, Wis.....	227.4	219.6	203.3	(1)	158.0	(2)	149.7	148.7	99.2	99.2	210.5	(1)	157.6	(1)
Minneapolis, Minn.....	217.9	213.8	(1)	(1)	(2)	(2)	142.3	142.3	78.1	78.1	(1)	(1)	(1)	(1)
Mobile, Ala.....	222.5	220.4	(1)	(1)	(2)	(2)	130.3	130.0	84.7	84.5	(1)	(1)	(1)	(1)
New Orleans, La.....	239.8	237.8	209.1	(1)	136.1	(2)	113.2	113.2	75.1	75.1	205.6	(1)	150.8	(1)
New York, N. Y.....	227.0	221.0	200.6	195.6	(2)	114.5	142.9	142.1	101.8	101.8	200.2	196.9	167.0	165.9
Norfolk, Va.....	231.1	225.2	192.5	(1)	146.6	(2)	164.6	164.6	107.3	107.3	203.0	(1)	161.2	(1)
Philadelphia, Pa.....	222.2	217.7	201.1	196.9	126.1	(2)	149.7	148.1	104.2	104.2	220.8	219.1	168.0	161.0
Pittsburgh, Pa.....	227.4	222.4	232.5	227.0	(2)	123.7	149.9	148.8	114.2	114.2	214.7	213.9	159.9	159.7
Portland, Maine.....	211.0	207.9	(1)	(1)	(2)	(2)	155.3	155.0	105.6	105.7	(1)	(1)	(1)	(1)
Portland, Ore.....	247.4	243.4	(1)	196.5	(2)	144.9	135.3	135.1	93.9	93.9	(1)	203.1	(1)	166.9
Richmond, Va.....	218.3	215.6	(1)	198.1	(2)	148.5	148.3	148.3	102.2	102.2	(1)	220.8	(1)	152.4
St. Louis, Mo.....	240.0	234.0	(1)	(1)	(2)	(2)	143.0	142.8	88.4	88.4	(1)	(1)	(1)	(1)
San Francisco, Calif.....	235.3	238.0	(1)	(1)	(2)	(2)	86.5	86.5	76.2	76.2	(1)	(1)	(1)	(1)
Savannah, Ga.....	231.5	229.8	(1)	196.1	(2)	158.5	156.6	156.4	108.6	108.6	(1)	209.8	(1)	165.7
Scranton, Pa.....	223.7	217.7	210.5	(1)	118.7	(2)	158.3	152.0	98.3	98.3	185.7	(1)	150.5	(1)
Seattle, Wash.....	231.7	230.2	201.8	(1)	148.1	(2)	132.0	131.8	92.6	92.6	213.5	(1)	168.7	(1)
Washington, D. C.....	223.3	221.2	222.5	(1)	118.1	(2)	149.1	147.4	105.5	105.5	222.4	(1)	164.3	(1)

¹ Prices of apparel, housefurnishings, and miscellaneous goods and services are obtained monthly in 10 cities and once every 3 months in 24 additional cities on a staggered schedule.

² Rents are surveyed every 3 months in 34 large cities on a staggered schedule.

TABLE D-4: Indexes of Retail Prices of Foods,¹ by Group, for Selected Periods

[1935-39=100]

Year and month	All foods	Cereals and bakery products	Meats, poultry, and fish	Meats				Chick-ens	Fish	Dairy products	Eggs	Fruits and vegetables					Bever-ages	Fats and oils	Sugar and sweets
				Total	Beef and veal	Pork	Lamb					Total	Fro-zen ²	Fresh	Canned	Dried			
1923: Average	124.0	105.5	101.2							129.4	136.1	169.5	173.6	124.8	175.4	131.5	126.2	175.4	
1926: Average	137.4	115.7	117.8							127.4	141.7	210.8	226.2	122.9	152.4	170.4	145.0	120.0	
1929: Average	132.5	107.6	127.1							131.0	143.8	169.0	173.5	124.3	171.0	164.8	127.2	114.3	
1932: Average	86.5	82.6	79.3							84.9	82.3	103.5	105.9	91.1	91.2	112.6	71.1	89.6	
1939: Average	95.2	94.5	96.6	96.6	101.1	88.9	99.5	93.8	101.0	95.9	91.0	94.5	95.1	92.3	93.3	95.5	87.7	100.6	
August	93.5	93.4	95.7	95.4	99.6	88.0	98.8	94.6	99.6	93.1	90.7	92.4	92.8	91.6	90.3	94.9	84.5	95.6	
1940: Average	96.6	96.8	95.8	94.4	102.8	81.1	99.7	94.8	110.6	101.4	93.8	96.5	97.3	92.4	100.6	92.5	82.2	96.8	
1941: Average	105.5	97.9	107.5	106.5	110.8	100.1	106.6	102.1	124.5	112.0	112.2	103.2	104.2	97.9	106.7	101.5	94.0	106.4	
December	113.1	102.5	111.1	109.7	114.4	103.2	108.1	100.5	138.9	120.5	138.1	110.5	111.0	106.3	118.3	114.1	108.5	114.4	
1942: Average	123.9	105.1	126.0	122.5	123.6	120.4	124.1	122.6	163.0	125.4	136.5	130.8	132.8	121.6	136.3	122.1	119.6	126.5	
1943: Average	138.0	107.6	133.8	124.2	124.7	119.9	136.9	146.1	206.5	134.6	161.9	168.8	178.0	130.6	158.9	124.8	126.1	127.1	
1944: Average	136.1	108.4	129.9	117.9	118.7	112.2	134.5	151.0	207.6	133.6	153.9	168.2	177.2	129.5	164.5	124.3	123.3	126.5	
1945: Average	139.1	109.0	131.2	118.0	118.4	112.6	136.0	154.4	217.1	133.9	164.4	177.1	188.2	130.2	168.2	124.7	124.0	126.5	
August	140.9	109.1	131.8	118.1	118.5	112.6	136.4	157.3	217.8	133.4	174.4	183.5	196.2	130.3	168.6	124.7	124.0	126.6	
1946: Average	159.6	125.0	161.3	150.8	150.5	148.2	163.9	174.0	236.2	165.1	168.8	182.4	190.7	140.8	190.4	139.6	152.1	143.9	
June	145.6	122.1	134.0	120.4	121.2	114.3	139.0	162.8	219.7	147.8	147.1	183.5	196.7	127.5	172.5	125.4	126.4	136.2	
November	187.7	140.6	203.6	197.9	191.0	207.1	205.4	188.9	265.0	198.5	201.6	184.5	182.3	167.7	251.6	167.8	244.4	170.5	
1947: Average	193.8	155.4	217.1	214.7	213.6	215.9	220.1	183.2	271.4	186.2	200.8	199.4	201.5	166.2	263.5	186.8	197.5	180.0	
1948: Average	210.2	170.9	246.5	243.9	258.5	222.5	246.8	203.2	312.8	204.8	208.7	205.2	212.4	158.0	246.8	205.0	195.5	174.0	
1949: Average	201.9	169.7	233.4	229.3	241.3	205.9	251.7	191.5	314.1	186.7	201.2	208.1	218.8	152.9	227.4	220.7	148.4	176.4	
1950: Average	204.5	172.7	243.6	242.0	265.7	203.2	257.8	183.3	308.5	184.7	173.6	199.2	206.1	146.0	228.5	312.5	144.3	179.9	
January	196.0	169.0	219.4	217.9	242.3	177.3	234.3	158.9	301.9	184.2	152.3	204.8	217.2	143.3	223.9	299.5	135.2	178.9	
February	194.9	169.1	222.0	220.2	241.8	183.6	238.6	164.9	294.1	183.6	140.8	199.3	208.7	142.7	222.1	303.3	133.6	178.0	
March	196.6	169.1	229.3	224.1	244.6	188.3	246.5	180.6	301.8	182.4	149.5	195.1	202.0	142.6	221.5	308.5	134.3	177.0	
April	197.3	169.3	231.1	224.6	246.4	185.4	251.9	187.8	297.5	179.6	149.8	198.9	208.1	142.3	221.6	305.5	135.6	175.1	
May	199.8	169.8	240.2	238.4	258.7	202.8	262.1	184.4	293.7	178.3	143.7	202.2	213.6	142.0	222.9	299.1	137.7	174.4	
June	203.1	169.8	246.5	246.7	268.6	209.1	268.1	185.1	295.9	177.8	148.4	209.3	224.3	142.7	222.9	296.5	140.1	174.3	
July	208.2	171.5	255.7	257.4	277.2	225.9	269.0	189.8	297.3	180.7	163.3	211.5	227.7	142.7	222.9	303.0	141.8	175.7	
August	209.9	175.5	260.7	259.6	282.2	225.0	266.9	202.3	302.8	184.3	182.2	193.4	196.9	145.7	227.6	321.3	153.9	185.6	
September	210.0	176.9	261.0	260.2	281.7	228.3	264.2	199.2	311.4	186.9	192.1	186.0	183.9	147.6	229.8	327.3	154.8	185.4	
October	210.6	177.2	253.3	252.0	279.6	209.3	259.4	187.2	328.8	191.9	206.2	189.8	187.7	151.6	236.1	333.4	152.9	184.8	
November	210.8	177.6	250.3	249.6	279.2	201.8	264.1	180.1	336.6	192.8	205.4	195.7	195.9	153.2	242.2	325.5	152.9	184.6	
December	216.3	177.7	253.4	253.8	286.3	201.0	269.0	179.3	340.3	194.0	249.4	203.9	207.3	155.3	248.8	327.5	158.5	184.9	
1951: January	221.9	185.4	263.6	265.5	300.9	210.2	273.6	184.3	345.3	202.6	191.5	214.1	100.2	220.0	253.4	340.6	171.5	185.6	
February	226.0	187.1	270.1	271.2	307.0	215.2	279.7	193.2	347.8	204.4	179.8	224.3	100.8	233.4	256.7	342.7	176.5	186.0	

¹ The Bureau of Labor Statistics retail food prices are obtained monthly during the first three days of the week containing the fifteenth of the month, through voluntary reports from chain and independent retail food dealers. Articles included are selected to represent food sales to moderate-income families.

The indexes, based on retail prices of 50 foods through 1949 and 59 foods from January 1950 to date are computed by the fixed-base-weighted-aggregate method, using weights representing (1) relative importance of chain and independent store sales, in computing city average prices; (2) food purchases

by families of wage earners and moderate-income workers, in computing city indexes; and (3) population weights, in combining city aggregates in order to derive average prices and indexes for all cities combined.

Indexes of retail food prices in 56 large cities combined, by commodity groups, for the years 1923 through 1948 (1935-39=100), may be found in Bulletin No. 965, "Retail Prices of Food, 1948," Bureau of Labor Statistics, U. S. Department of Labor, table 3, p. 7. Mimeographed tables of the same data, by months, January 1935 to date, are available upon request.

² December 1950=100.

TABLE D-5: Indexes of Retail Prices of Foods, by City

[1935-39=100]

City	Feb. 1951	Jan. 1951	Dec. 1950	Nov. 1950	Oct. 1950	Sept. 1950	Aug. 1950	July 1950	June 1950	May 1950	Apr. 1950	Mar. 1950	Feb. 1950	Jan. 1950	Feb. 1951
United States.....	226.0	221.9	216.3	210.8	210.6	210.0	209.9	208.2	203.1	199.8	197.3	196.6	194.9	196.0	226.0
Atlanta, Ga.....	224.0	223.4	217.0	208.3	208.6	210.2	210.1	202.0	195.4	193.8	194.1	195.6	190.1	192.5	225.4
Baltimore, Md.....	237.1	231.8	226.4	220.5	221.2	221.8	222.0	220.4	215.6	210.0	207.1	207.1	205.0	206.6	237.7
Birmingham, Ala.....	220.8	219.8	212.3	203.0	202.7	206.4	201.5	199.8	192.2	191.8	189.9	189.2	183.0	186.4	218.7
Boston, Mass.....	213.8	209.1	204.1	201.5	201.9	200.1	202.9	202.0	196.1	190.6	186.6	187.9	185.4	186.6	214.5
Bridgeport, Conn.....	224.1	220.9	214.6	209.1	210.8	206.8	208.4	210.0	204.0	199.8	197.4	196.9	192.6	195.5	224.8
Buffalo, N. Y.....	217.9	215.5	207.5	205.7	204.0	202.6	203.5	204.9	199.0	193.9	192.3	191.6	189.4	189.8	218.8
Butte, Mont.....	225.2	226.7	215.8	212.2	212.0	209.4	209.1	204.9	203.0	198.5	196.7	194.5	193.9	194.1	221.5
Cedar Rapids, Iowa ¹	230.6	229.2	225.9	220.2	220.6	219.2	218.8	211.9	208.6	205.5	201.1	201.0	200.3	200.3	233.4
Charleston, S. C.....	213.2	208.9	203.2	195.5	196.7	198.9	199.9	192.8	188.0	186.1	185.6	186.8	183.3	185.3	215.0
Chicago, Ill.....	232.9	225.1	221.6	214.8	215.0	214.7	217.0	214.8	208.4	206.0	201.1	201.1	198.6	199.9	234.0
Cincinnati, Ohio.....	226.9	223.7	215.9	210.7	212.6	214.2	213.2	210.2	205.1	202.0	197.7	198.2	197.0	197.4	226.9
Cleveland, Ohio.....	232.7	227.4	220.9	217.8	219.1	217.5	218.3	216.6	211.2	205.7	203.1	201.8	201.7	202.6	233.5
Columbus, Ohio.....	206.7	200.7	197.4	191.1	192.5	193.2	194.0	189.9	183.9	182.1	179.5	179.2	177.5	177.2	208.5
Dallas, Tex.....	228.7	225.9	221.1	213.1	213.5	215.6	214.2	207.2	201.5	199.8	197.1	197.0	197.9	198.4	228.8
Denver, Colo.....	229.0	227.8	223.6	216.0	215.1	212.2	214.8	209.6	205.9	203.0	199.0	199.0	196.6	196.8	226.6
Detroit, Mich.....	228.3	223.7	217.2	213.5	212.5	209.7	208.8	208.0	202.9	198.7	194.9	192.8	190.8	191.8	230.9
Fall River, Mass.....	222.8	216.0	211.4	206.2	207.6	205.6	207.7	207.2	200.7	195.6	193.7	192.7	190.8	191.9	225.2
Houston, Tex.....	235.6	236.0	227.5	222.1	222.3	223.3	221.9	212.8	208.1	206.3	206.6	209.2	206.0	207.7	237.3
Indianapolis, Ind.....	220.6	218.6	214.9	208.8	208.6	210.3	208.8	203.4	198.1	196.3	193.3	192.7	191.2	192.3	226.5
Jackson, Miss. ¹	226.4	223.1	216.0	211.6	213.9	213.9	213.2	206.0	201.0	201.2	199.9	198.7	196.7	199.9	226.4
Jacksonville, Fla.....	231.5	229.0	223.1	215.3	215.2	219.1	218.1	211.4	205.8	202.8	201.5	202.3	199.0	200.7	232.2
Kansas City, Mo.....	210.5	208.5	203.2	198.1	196.2	195.8	194.9	195.0	189.2	187.2	184.7	183.5	182.8	183.6	211.4
Knoxville, Tenn. ¹	253.1	248.6	243.6	235.0	235.8	238.5	238.5	227.9	223.1	220.6	219.3	218.8	216.7	216.7	255.5
Little Rock, Ark.....	225.2	222.7	217.1	211.7	210.9	211.5	210.7	204.2	200.1	196.8	195.6	196.0	195.0	196.4	226.5
Los Angeles, Calif.....	226.9	226.3	218.0	212.1	210.9	207.8	208.6	204.4	201.6	201.3	201.6	199.5	198.9	201.4	222.9
Louisville, Ky.....	214.5	210.0	203.3	198.0	198.0	199.4	197.8	197.6	192.0	187.8	183.1	184.1	183.0	183.7	215.6
Manchester, N. H.....	218.9	215.1	210.1	207.4	208.8	206.2	207.3	206.3	200.6	196.2	192.6	193.3	190.4	191.6	220.8
Memphis, Tenn.....	230.8	227.6	224.0	218.3	220.1	221.5	219.4	213.6	208.3	205.8	203.4	204.8	202.9	203.1	229.0
Milwaukee, Wis.....	227.4	219.6	216.3	213.0	212.3	212.3	213.7	212.7	206.6	204.2	198.3	190.0	196.4	196.3	228.3
Minneapolis, Minn.....	217.9	213.8	206.8	202.1	200.7	199.1	200.7	196.8	194.1	191.3	187.1	187.2	187.5	189.1	219.0
Mobile, Ala.....	222.5	220.4	213.2	208.8	207.4	210.2	212.6	204.7	200.1	199.8	199.7	198.7	194.8	196.4	222.9
Newark, N. J.....	225.5	220.2	215.3	209.1	208.2	206.3	206.3	206.8	203.3	198.3	195.7	193.9	191.0	192.4	223.6
New Haven, Conn.....	220.0	214.0	208.7	203.6	205.4	203.6	203.8	204.5	199.8	194.9	192.3	192.3	190.1	190.6	220.4
New Orleans, La.....	239.8	237.8	228.2	220.7	221.5	225.2	227.0	218.5	212.9	210.8	211.3	209.8	207.4	209.6	240.2
New York, N. Y.....	227.0	221.0	216.1	211.3	210.2	210.6	207.2	209.2	203.7	200.3	198.7	197.2	195.9	195.9	226.0
Norfolk, Va.....	231.1	225.2	214.8	210.8	211.8	216.3	217.6	210.3	205.9	202.1	199.1	198.7	195.1	194.8	231.7
Omaha, Neb.....	216.4	213.7	209.8	203.6	202.3	203.5	203.9	199.6	197.2	195.5	190.2	190.0	188.6	189.8	218.1
Peoria, Ill.....	236.5	233.4	226.9	224.4	225.0	224.2	224.3	221.2	216.8	211.9	208.3	207.4	206.5	205.9	239.3
Philadelphia, Pa.....	222.2	217.7	212.9	206.7	207.9	208.8	208.1	205.9	201.4	195.5	193.6	193.4	190.2	191.3	220.2
Pittsburgh, Pa.....	227.4	222.4	218.0	213.8	215.9	214.6	213.3	211.1	207.5	205.1	201.0	198.5	198.4	199.7	226.4
Portland, Maine.....	211.0	207.9	202.9	198.1	198.9	197.7	198.0	198.9	193.0	189.2	188.2	190.3	186.7	187.3	212.5
Portland, Oreg.....	247.4	243.4	234.9	230.7	228.7	228.5	227.5	224.2	219.1	216.6	212.9	211.3	212.1	210.4	246.7
Providence, R. I.....	230.8	225.1	219.3	213.7	214.4	213.6	214.4	213.5	207.9	203.0	199.6	198.8	197.0	198.3	233.2
Richmond, Va.....	218.3	215.6	210.3	201.6	202.0	202.9	202.9	200.7	195.2	191.1	189.0	189.3	187.9	188.3	219.3
Rochester, N. Y.....	216.2	212.2	206.1	202.6	204.5	202.0	201.7	203.4	196.4	193.7	189.6	191.2	190.0	190.7	216.0
St. Louis, Mo.....	240.0	234.0	229.7	221.2	220.2	220.4	220.8	220.1	210.2	207.2	202.6	204.7	202.8	204.6	240.8
St. Paul, Minn.....	212.9	210.5	202.8	198.4	196.9	195.3	195.7	194.4	192.5	189.7	186.3	187.0	186.6	186.4	212.7
Salt Lake City, Utah.....	225.6	222.2	217.2	212.4	211.4	210.9	210.1	202.8	202.2	199.2	196.2	196.8	198.8	198.7	225.5
San Francisco, Calif.....	235.3	238.0	229.0	219.3	217.0	214.3	217.3	215.9	211.1	210.4	210.8	210.5	211.9	214.3	236.8
Savannah, Ga.....	231.5	229.8	223.0	214.9	215.9	217.9	219.5	211.6	206.3	203.6	200.0	200.0	195.6	197.0	232.8
Scranton, Pa.....	223.7	217.7	212.1	207.1	207.2	208.9	209.8	209.5	204.2	199.6	194.0	194.7	191.4	192.4	223.4
Seattle, Wash.....	231.7	230.2	225.7	221.8	218.0	214.1	214.6	211.4	208.6	206.9	205.6	204.4	205.3	205.8	229.7
Springfield, Ill.....	238.2	233.7	231.7	223.1	222.1	218.6	219.8	218.6	211.8	207.5	202.7	201.8	200.7	200.9	237.8
Washington, D. C.....	223.3	221.2	216.7	208.9	208.9	207.4	207.4	205.8	201.9	196.9	194.4	194.7	194.0	194.4	223.3
Wichita, Kans. ¹	235.9	231.1	230.0	218.4	219.0	218.9	220.4	214.0	209.4	207.6	204.6	206.9	205.0	205.9	238.1
Winston-Salem, N. C. ¹	221.3	217.6	214.1	205.7	207.5	207.8	207.4	200.8	197.3	193.1	192.6	193.7	189.2	191.0	222.7

¹ June 1940-100.

TABLE D-6: Average Retail Prices and Indexes of Selected Foods

Commodity	Average price Feb. 1951	Indexes 1935-39=100													
		Feb. 1951	Jan. 1951	Dec. 1950	Nov. 1950	Oct. 1950	Sept. 1950	Aug. 1950	July 1950	June 1950	May 1950	Apr. 1950	Mar. 1950	Feb. 1950	Jan. 1950
Cereals and bakery products:															
Cereals:															
Flour, wheat.....5 pounds.....	51.4	199.0	196.3	192.5	191.3	192.4	192.9	192.6	190.6	190.5	190.2	189.2	188.1	187.7	187.3
Corn flakes ¹.....13 ounces.....	20.7	193.9	192.5	191.7	190.9	187.4	182.7	177.2	177.1	176.5	177.0	176.9	177.0	177.4	177.8
Corn meal.....pound.....	9.6	202.8	200.5	197.8	197.9	204.0	205.4	205.9	190.9	181.9	179.9	176.6	176.3	176.2	177.7
Rice ².....do.....	18.2	101.5	100.7	101.0	98.6	97.5	96.8	95.5	92.4	93.1	93.0	92.8	92.4	92.4	92.2
Rollod oats ³.....20 ounces.....	17.1	155.2	154.5	153.4	152.5	150.3	146.8	146.1	145.8	145.8	145.9	145.9	146.2	146.2	146.4
Bakery products:															
Bread, white.....pound.....	15.7	183.0	182.2	172.0	171.9	171.9	171.5	171.1	166.2	163.9	164.1	164.1	163.9	163.9	163.8
Vanilla cookies.....do.....	49.5	211.6	209.8	201.7	202.8	201.3	201.6	197.0	193.3	191.7	191.6	189.8	189.8	190.1	189.9
Layer cake ⁴.....do.....	48.7	105.8	103.1	100.0											
Meats, poultry, and fish:															
Meats:															
Beef:															
Round steak.....do.....	107.4	317.6	312.3	297.6	286.4	287.1	288.2	293.3	295.9	287.9	274.7	256.6	253.4	250.1	252.1
Rib roast.....do.....	85.0	294.2	288.0	273.3	266.0	265.3	270.2	271.7	272.1	264.1	255.3	241.4	239.3	237.5	238.5
Chuck roast.....do.....	73.0	323.2	315.0	298.1	286.9	287.4	289.7	291.3	290.1	279.2	262.6	247.4	249.2	246.0	245.1
Frankfurters ⁵.....do.....	64.2	105.7	104.4	100.0											
Hamburger ⁶.....do.....	66.6	217.5	212.1	201.0	196.6	196.5	197.4	197.5	189.3	181.8	176.3	167.8	166.3	164.8	164.6
Veal:															
Cutlets.....do.....	123.5	308.0	300.2	286.7	281.1	281.0	280.1	277.8	275.3	271.2	265.1	258.5	262.5	261.4	255.8
Pork:															
Chops.....do.....	77.9	235.6	228.1	216.6	221.8	229.9	261.2	253.5	268.6	243.5	238.0	206.6	210.0	200.7	186.9
Bacon, sliced.....do.....	67.9	178.0	175.9	171.9	174.8	183.9	184.3	181.7	171.4	161.9	157.4	154.1	155.1	154.7	154.7
Ham, whole.....do.....	67.5	229.7	224.9	212.7	204.9	210.7	233.6	236.4	229.7	215.8	206.6	193.6	198.0	195.3	192.5
Salt pork.....do.....	39.6	187.5	186.7	184.5	183.6	184.8	183.1	179.6	164.8	160.5	152.5	149.3	152.2	150.2	153.2
Lamb:															
Leg.....do.....	80.5	284.1	277.9	273.3	268.4	263.5	268.4	271.2	273.3	272.4	266.2	255.9	250.5	242.4	238.1
Poultry:															
Frying chickens:															
New York dressed ⁷.....do.....	48.8														
Dressed and drawn ⁸.....do.....	62.0														
Fish:															
Fish (fresh, frozen) ⁹.....do.....	(8)	283.7	283.0	279.5	278.5	277.1	276.2	272.8	270.0	268.4	264.9	269.4	273.6	259.1	272.2
Salmon, pink.....16 ounce can.....	62.0	501.1	493.7	484.5	473.1	446.9	381.1	357.9	344.8	344.1	346.4	347.4	351.5	365.4	355.9
Dairy products:															
Butter:															
Butter.....pound.....	82.4	226.1	228.0	209.7	205.0	204.1	198.9	197.9	195.6	195.4	196.0	197.6	200.7	201.6	201.8
Cheese, American process.....do.....	59.8	264.3	254.9	232.4	230.3	228.5	229.0	228.2	226.3	226.2	228.0	229.0	230.1	230.6	231.1
Milk, fresh (delivered).....quart.....	22.7	184.8	183.5	179.0	178.3	177.4	170.6	167.5	164.2	160.4	160.8	162.0	165.3	167.0	167.9
Milk, fresh (grocery) ¹⁰.....do.....	21.4	186.7	185.7	180.6	181.1	180.3	174.2	170.0	165.7	162.0	162.9	165.1	168.4	169.7	170.2
Ice cream ¹¹.....pint.....	31.4	105.4	104.2	100.0											
Milk, evaporated.....14½ ounce can.....	14.3	201.0	194.1	183.7	183.0	182.8	181.1	177.8	173.9	174.2	174.3	174.5	175.1	174.9	175.1
Eggs, fresh.....dozen.....	62.8	179.8	191.5	249.4	205.4	206.2	192.1	182.2	163.3	148.4	143.7	149.8	149.5	140.8	152.3
Fruits and vegetables:															
Frozen fruits and vegetables:															
Strawberries ¹².....16 ounces.....	59.4	101.3	100.8	100.0											
Orange juice ¹³.....6 ounces.....	24.0	102.4	102.0	100.0											
Peas ¹⁴.....12 ounces.....	25.0	99.9	99.1	100.0											
Fresh fruits:															
Apples.....pound.....	11.0	206.4	204.4	195.3	187.0	190.3	229.5	237.5	340.6	301.1	256.3	220.1	204.9	187.5	178.6
Bananas.....do.....	16.5	274.0	266.5	271.0	266.4	261.4	247.1	263.8	268.6	271.9	274.6	274.7	278.2	278.2	273.1
Oranges, size 200.....dozen.....	49.4	173.4	153.3	166.5	176.3	191.0	175.4	174.0	182.9	172.8	168.0	173.9	177.8	176.5	156.5
Fresh vegetables:															
Beans, green.....pound.....	26.3	244.8	303.5	310.6	228.4	154.5	160.1	143.7	165.6	151.0	210.0	199.5	180.2	215.2	274.9
Cabbage.....do.....	15.9	425.2	239.6	158.5	126.5	134.3	142.5	158.7	174.3	174.0	168.6	178.7	178.7	169.6	173.9
Carrots.....bunch.....	14.1	258.7	206.0	203.8	203.1	177.0	180.2	181.2	195.1	181.7	178.3	175.3	177.3	184.9	202.6
Lettuce.....head.....	15.7	189.3	164.3	167.3	173.3	159.2	155.8	150.7	138.9	167.3	189.6	159.5	156.5	172.2	220.1
Onions.....pound.....	7.2	173.2	144.0	133.1	128.9	133.8	148.7	174.0	197.4	187.1	161.9	145.2	157.4	187.1	216.9
Potatoes.....15 pounds.....	64.8	177.6	172.3	163.8	154.0	163.5	178.8	202.0	216.3	219.3	207.7	198.4	194.9	195.2	196.5
Sweetpotatoes.....pound.....	9.8	189.7	182.5	177.5	161.2	159.3	184.8	216.0	198.5	209.4	219.0	211.7	210.4	206.0	205.6
Tomatoes ¹⁵.....do.....	33.3	218.7	254.7	193.6	167.9	131.6	86.1	117.5	215.4	208.3	154.1	175.8	142.3	156.9	165.3
Canned fruits and vegetables:															
Canned fruits:															
Peaches.....No. 2½ can.....	33.2	172.8	172.1	168.2	166.7	164.6	158.3	151.5	142.4	140.1	138.2	138.4	139.1	140.1	141.8
Pineapple.....do.....	38.8	178.5	177.5	176.1	176.0	175.7	175.0	174.8	172.7	172.0	171.9	173.1	173.7	173.6	174.2
Canned vegetables:															
Corn.....No. 2 can.....	20.1	161.8	159.5	154.3	150.5	147.8	141.4	139.5	137.5	138.4	137.3	138.9	139.7	142.2	144.1
Tomatoes.....do.....	18.7	209.1	191.2	176.3	172.0	169.1	164.4	163.9	161.5	161.6	161.7	160.1	159.4	157.9	158.2
Peas ¹¹.....No. 303 can.....	21.9	119.7	119.5	117.8	117.2	117.3	116.0	114.8	112.9	114.3	113.5	114.6	114.8	114.0	113.1
Baby foods ¹⁶.....4½-4¾ ounces.....	9.9	100.8	100.2	100.0											
Dried fruits and vegetables:															
Dried fruits, prunes.....pound.....	27.5	271.4	268.0	264.6	261.4	253.4	242.0	238.2	235.7	237.8	236.7	235.3	233.3	232.1	232.5
Dried vegetables, navy beans.....do.....	17.4	234.9	231.8	226.7	218.8	214.0	210.7	209.4	203.9	202.7	203.4	202.1	203.1	204.5	206.9
Beverages:															
Coffee.....do.....	86.4	343.5	340.7	331.4	332.5	343.2	336.1	328.1	303.6	294.9	298.4	306.9	310.9	304.0	298.9
Cola drink ¹⁷.....Carton of 6.....	28.3	107.9	107.8	100.0											
Fats and oils:															
Lard.....pound.....	25.8	173.3	166.3	149.5	142.0	142.6	156.1	157.9	118.7	116.0	112.5	109.3	110.3	109.7	113.1
Shortening, hydrogenated.....do.....	40.8	197.4	191.2	175.1	169.4	169.0	168.2	166.1	157.2	155.6	151.8	148.4	147.2	146.2	148.8
Salad dressing.....pint.....	39.6	164.2	161.4	152.9	148.9	148.4	148.1	146.9	142.0	142.1	140.2	138.9	137.6	138.0	138.3
Margarine.....pound.....		199.5	193.9	179.9	173.0	173.8	174.5	173.7	164.2	161.1	160.5	160.1	156.4	154.5	155.3
Uncolored ¹⁸.....do.....	39.0														
Colored ¹⁹.....do.....	37.5														
Sugar and sweets:															
Sugar.....5 pounds.....	50.3	187.6	187.3	186.5	186.8	187.3	188.5	188.7	177.0	175.3	175.5	176.1	177.8	178.9	179.8
Grape jelly ²⁰.....12 ounces.....	24.0	100.5	100.3	100.0											

¹ Specification changed to 13 ounces in December.
² July 1947=100.
³ February 1943=100.
⁴ December 1950=100.
⁵ Priced in 46 cities.
⁶ Priced in 28 cities.
⁷ 1938-39=100.
⁸ Average price not computed.
⁹ Specification revised in November 1950.
¹⁰ October 1949=100.
¹¹ No. 303 canned fancy grade peas introduced in April 1950 in place of No. 2 can standard.
¹² Priced in 18 cities beginning January 1951, 19 cities July through December 1950. Priced in 56 cities before that date.
¹³ Priced in 37 cities July through December 1950 and in 38 cities beginning January 1951.

TABLE D-7: Indexes of Wholesale Prices,¹ by Group Commodities, for Selected Periods

[1926=100]

Year and month	All commodities ¹	Farm products	Foods	Hides and leather products	Textile products	Fuel and lighting materials	Metals and metal products ²	Building materials	Chemicals and allied products	House-furnishing goods	Miscellaneous commodities	Raw materials	Semi-manufactured articles	Manufactured products ²	All commodities except farm products ²	All commodities except farm products and foods ¹
1913: Average.....	69.8	71.5	64.2	68.1	57.3	61.3	90.8	56.7	80.2	56.1	93.1	68.8	74.9	69.4	69.0	70.0
1914: July.....	67.3	71.4	62.9	69.7	55.3	55.7	79.1	52.9	77.9	56.7	88.1	67.3	67.8	66.9	65.7	65.7
1918: November.....	136.3	150.3	128.6	131.6	142.6	114.3	143.5	101.8	178.0	99.2	142.3	138.8	162.7	130.4	131.0	129.9
1920: May.....	167.2	169.8	147.3	193.2	188.3	159.8	155.5	164.4	173.7	143.3	176.5	163.4	253.0	157.8	165.4	170.6
1929: Average.....	95.3	104.9	99.9	109.1	90.4	83.0	100.5	95.4	94.0	94.3	82.6	97.5	93.9	94.5	93.3	91.6
1932: Average.....	64.8	48.2	61.0	72.9	54.9	70.3	80.2	71.4	73.9	75.1	64.4	55.1	59.3	70.3	68.3	70.2
1939: Average.....	77.1	65.3	70.4	95.6	69.7	73.1	94.4	90.5	76.0	86.3	74.8	70.2	77.0	80.4	79.5	81.3
August.....	75.0	61.0	67.2	92.7	67.8	72.6	93.2	89.6	74.2	85.6	73.3	66.5	74.5	79.1	77.9	80.1
1940: Average.....	78.6	67.7	71.3	100.8	73.8	71.7	95.8	94.8	77.0	88.5	77.3	71.9	79.1	81.6	80.8	83.0
1941: Average.....	87.3	82.4	82.7	108.3	84.8	76.2	99.4	103.2	84.4	94.3	82.0	83.5	86.9	89.1	88.3	89.0
December.....	93.6	94.7	90.5	114.8	91.8	78.4	103.3	107.8	90.4	101.1	87.6	92.3	90.1	94.6	93.3	93.7
1942: Average.....	98.8	105.9	99.6	117.7	96.9	78.5	103.8	110.2	95.5	102.4	89.7	100.6	92.6	98.6	97.0	95.5
1943: Average.....	103.1	122.6	106.6	117.5	97.4	80.8	103.8	111.4	94.9	102.7	92.2	112.1	92.9	100.1	98.7	96.9
1944: Average.....	104.0	123.3	104.9	116.7	98.4	83.0	103.8	115.5	95.2	104.3	93.6	113.2	94.1	100.8	99.6	98.5
1945: Average.....	105.8	128.2	106.2	118.1	100.1	84.0	104.7	117.8	95.2	104.5	94.7	116.8	95.9	101.8	100.8	99.7
August.....	105.7	126.9	106.4	118.0	99.6	84.8	104.7	117.8	95.3	104.5	94.8	116.3	95.5	101.8	100.9	99.9
1946: Average.....	121.1	148.9	130.7	137.2	116.3	90.1	115.5	132.6	101.4	111.6	100.3	134.7	110.8	116.1	114.9	109.5
June.....	112.9	140.1	112.9	122.4	109.2	87.8	112.2	129.9	96.4	110.4	98.5	126.3	105.7	107.3	106.7	105.6
November.....	139.7	169.8	165.4	172.5	131.6	94.5	130.2	145.5	118.9	118.2	106.5	153.4	129.1	134.7	132.9	120.7
1947: Average.....	152.1	181.2	168.7	182.4	141.7	108.7	145.0	179.7	127.3	131.1	115.5	165.6	148.5	146.0	145.5	135.2
1948: Average.....	165.1	188.3	179.1	188.8	149.8	134.2	163.6	199.1	135.7	144.5	120.5	178.4	158.0	159.4	159.8	151.0
1949: Average.....	155.0	165.5	161.4	180.4	140.4	131.7	170.2	193.4	118.6	145.3	112.3	163.9	150.2	151.2	152.4	147.3
1950: Average.....	161.5	170.4	166.1	191.9	148.0	133.3	173.6	206.0	122.7	153.2	120.9	172.4	156.0	156.8	159.2	153.2
February.....	152.7	159.1	156.7	179.0	138.2	131.3	168.6	192.8	115.2	145.2	110.0	162.4	144.3	149.1	151.1	145.9
March.....	152.7	159.4	155.5	179.6	137.3	131.5	168.5	194.2	116.3	145.5	110.7	162.8	144.1	148.9	151.0	146.1
April.....	152.9	159.3	155.3	179.4	136.4	131.2	168.7	194.8	117.1	145.8	112.6	162.5	143.9	149.4	151.2	146.4
May.....	155.9	164.7	159.9	181.0	136.1	132.1	169.7	198.1	116.4	146.6	114.7	166.3	145.6	152.2	153.7	147.6
June.....	157.3	165.9	162.1	182.6	136.8	132.7	171.9	202.1	114.5	146.9	114.7	167.7	148.4	153.5	155.2	148.8
July.....	162.9	176.0	171.4	187.2	142.6	133.4	172.4	207.3	118.1	148.7	119.0	175.8	152.9	158.0	159.8	151.5
August.....	166.4	177.6	174.6	195.6	149.5	134.4	174.3	213.9	122.5	153.9	124.3	179.1	159.2	161.2	163.7	155.5
September.....	169.5	180.4	177.2	202.9	158.3	135.1	176.7	219.6	128.6	159.2	127.4	181.8	165.7	164.0	166.9	159.2
October.....	169.1	177.8	172.5	208.5	163.1	135.4	178.6	218.9	132.2	163.8	131.3	180.2	169.3	163.5	166.9	161.5
November.....	171.7	183.7	175.2	211.6	166.7	135.6	180.4	217.8	135.0	166.9	137.6	184.5	173.0	165.1	168.8	163.7
December.....	175.3	187.4	179.0	218.8	171.2	135.6	184.8	*221.4	139.6	169.9	140.5	187.1	178.1	168.9	172.3	166.6
1951: January.....	*180.1	*194.2	182.3	*234.8	178.3	136.4	187.4	*226.2	*144.4	*174.7	142.4	*192.6	185.0	*173.1	*176.8	*170.3
February.....	183.6	202.6	187.7	238.9	180.9	138.1	187.9	228.1	147.2	175.3	142.7	199.0	187.0	175.5	179.2	171.8

¹ BLS wholesale price data, for the most part, represent prices in primary markets. They are prices charged by manufacturers or producers or are prices prevailing on organized exchanges. The weekly index is calculated from 1-day-a-week prices; the monthly index from an average of these prices. Monthly indexes for the last 2 months are preliminary.

The indexes currently are computed by the fixed base aggregate method, with weights representing quantities produced for sale in 1929-31. (For a detailed description of the method of calculation see "Revised Method of Calculation of the Bureau of Labor Statistics Wholesale Price Index," in the Journal of the American Statistical Association, December 1937.)

Mimeographed tables are available, upon request to the Bureau, giving monthly indexes for major groups of commodities since 1890 and for subgroups and economic groups since 1913. The weekly wholesale price indexes are

available in summary form since 1947 for all commodities; all commodities less farm products and foods; farm products; foods; textile products; fuel and lighting materials; metals and metal products; building materials, and chemicals and allied products. Weekly indexes are also available for the subgroups of grains, livestock, and meats.

² Includes current motor vehicle prices beginning with October 1946. The rate of production of motor vehicles in October 1946 exceeded the monthly average rate of civilian production in 1941, and in accordance with the announcement made in September 1946, the Bureau introduced current prices for motor vehicles in the October calculations. During the war, motor vehicles were not produced for general civilian sale and the Bureau carried April 1942 prices forward in each computation through September 1946.

* Corrected.

TABLE D-8: Indexes of Wholesale Prices,¹ by Group and Subgroup of Commodities
[1926=100]

Group and subgroup	1951		1950										1946	1939	
	Feb.	Jan.	Dec.	Nov.	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	Feb.	June	Aug.
All commodities ²	183.6	180.1	175.3	171.7	169.1	169.5	166.4	162.9	157.3	155.9	152.9	152.7	152.7	112.9	75.0
Farm products.....	202.6	194.2	187.4	183.7	177.8	180.4	177.6	176.0	165.9	164.7	159.3	145.9	159.1	140.1	61.0
Grains.....	192.0	186.6	180.9	172.1	165.3	166.5	167.7	173.5	169.3	172.3	169.6	165.4	161.3	151.8	51.5
Livestock and poultry ³	238.2	222.2	204.9	197.3	198.7	211.3	217.3	215.8	197.5	194.6	178.0	180.3	179.9	137.4	66.0
Livestock ⁴	268.0	250.6	231.8	222.6	223.8	237.5	243.8	242.5	222.4	218.5	197.9	199.7	200.6	143.4	67.7
Poultry ⁴	94.3	84.7	74.5	74.9	77.1	85.3	90.2	87.6	77.2	79.6	84.0	89.7	81.4	(3)	(3)
Other farm products.....	182.8	178.2	177.4	177.4	167.4	164.4	155.3	151.8	145.0	143.7	144.2	144.2	144.9	137.5	60.1
Eggs ⁴	117.0	116.5	149.5	148.2	141.0	128.8	110.1	103.8	91.3	85.4	90.7	94.6	87.3	97.3	47.5
Foods.....	187.7	182.3	179.0	175.2	172.5	177.2	174.6	171.4	162.1	159.9	155.3	155.5	156.7	112.9	67.2
Dairy products.....	173.0	171.5	164.4	164.1	160.8	154.7	148.0	141.8	135.9	138.0	141.1	144.8	147.5	127.3	67.9
Cereal products.....	166.8	163.5	157.7	154.1	153.8	155.5	154.9	151.2	145.6	146.0	145.9	145.6	144.8	101.7	71.9
Fruits and vegetables.....	142.4	136.1	138.0	140.4	129.5	131.0	132.0	137.0	140.5	139.2	137.6	134.9	138.2	136.1	58.5
Meats, poultry, fish ⁴	265.2	242.7	233.7	223.4	223.7	241.0	240.2	240.7	223.7	217.1	200.6	200.0	201.6	110.1	73.7
Meats ⁴	274.8	261.5	251.9	240.5	240.8	259.5	258.3	260.1	241.4	234.0	214.7	213.6	216.3	116.6	78.1
Poultry ⁴	107.0	98.2	92.3	90.8	90.2	99.0	103.5	97.9	91.5	90.0	89.9	92.7	86.8	(3)	(3)
Other foods.....	169.0	157.7	161.5	158.9	156.4	158.7	154.1	145.1	133.1	130.9	129.3	129.8	129.6	98.1	60.3
Hides and leather products.....	238.9	234.8	218.8	211.6	208.5	202.9	195.6	187.2	182.6	181.0	179.4	179.6	179.0	122.4	92.7
Shoes.....	225.0	219.2	209.4	204.0	200.3	194.8	191.4	185.8	184.8	185.0	184.3	184.3	184.3	129.5	100.8
Hides and skins.....	320.6	318.8	277.5	269.3	266.3	264.7	238.2	219.8	202.1	194.4	187.2	190.4	188.2	121.5	77.2
Leather.....	229.1	224.8	213.8	204.9	201.3	196.8	192.3	185.3	180.6	179.3	179.1	177.9	176.6	110.7	84.0
Other leather products.....	188.0	188.0	173.9	164.9	164.9	151.3	151.3	143.1	143.1	143.1	143.1	143.1	143.1	115.2	97.1
Textile products.....	180.9	178.3	171.2	166.7	163.1	158.3	149.5	142.6	136.8	136.1	136.4	137.3	138.2	109.2	67.8
Clothing.....	163.9	161.6	155.4	151.4	147.7	146.7	145.2	144.3	143.8	143.8	144.2	143.5	143.1	120.3	81.5
Cotton goods.....	240.4	239.1	236.1	231.7	225.7	221.6	206.8	190.7	173.8	172.0	172.8	176.5	178.4	139.4	65.5
Hosiery and underwear.....	115.3	115.2	113.7	111.4	109.2	105.3	101.2	99.2	97.7	97.7	97.7	98.0	98.6	75.8	61.5
Rayon and nylon ⁴	43.1	43.1	43.0	42.7	42.5	41.7	41.3	40.7	39.9	39.9	39.9	39.9	39.9	30.2	28.5
Silk ⁴	89.2	87.6	75.0	69.0	65.3	64.9	65.6	60.3	49.3	49.3	49.1	49.1	50.1	(3)	44.3
Woolen and worsted.....	225.5	217.4	195.3	192.5	188.9	178.7	157.7	150.9	148.3	146.2	146.1	146.3	147.2	112.7	75.5
Other textile products.....	243.8	238.5	229.6	210.4	207.3	191.3	181.5	168.5	164.5	164.6	165.8	166.9	170.3	112.3	63.7
Fuel and lighting materials.....	138.1	136.4	135.6	135.6	135.4	135.1	134.4	133.4	132.7	132.1	131.2	131.5	131.3	87.8	72.6
Anthracite.....	156.5	145.8	145.7	144.7	143.9	142.8	142.1	141.0	140.1	139.2	142.6	141.9	139.3	106.1	72.1
Bituminous coal.....	197.5	193.2	193.2	193.3	193.3	193.1	192.5	191.9	192.1	192.6	193.4	198.5	196.7	132.8	96.0
Coke.....	234.1	232.8	232.7	232.5	231.1	225.6	225.6	225.6	225.6	225.6	225.6	224.7	223.7	133.5	104.2
Electricity.....	(3)	(3)	65.7	65.5	65.2	65.6	65.5	67.0	67.0	66.6	67.8	67.9	69.6	67.2	75.8
Gas.....	(3)	90.0	90.2	90.5	88.9	89.0	88.1	88.3	87.3	87.2	86.8	88.3	87.4	79.6	86.7
Petroleum and products ⁴	119.4	119.4	118.0	118.1	118.0	117.8	116.8	115.5	113.9	112.6	109.5	108.6	109.4	64.0	51.7
Metals and metal products ²	187.9	187.4	184.8	180.4	178.6	176.7	174.3	172.4	171.9	169.7	168.7	168.5	168.6	112.2	93.2
Agricultural machinery and equipment ⁴	156.9	156.1	154.6	153.2	152.0	150.3	145.5	143.9	143.7	143.7	143.4	143.1	143.1	104.5	93.5
Farm machinery ⁴	159.3	158.4	157.1	155.7	154.5	152.7	147.7	146.2	146.0	146.0	145.8	145.6	145.7	104.9	94.7
Iron and steel.....	185.5	185.6	182.1	174.0	173.2	172.2	171.0	169.8	169.4	168.5	168.9	169.0	168.8	110.1	95.1
Steel mill products.....	186.2	186.1	183.2	172.8	172.7	172.5	172.3	172.3	172.2	171.8	171.7	171.7	171.7	112.2	98.6
Semi-finished.....	196.2	196.2	196.2	185.4	185.4	185.4	185.4	185.4	185.4	184.9	184.7	184.7	184.7	108.9	96.0
Finished.....	184.9	184.9	181.6	171.2	171.1	170.9	170.6	170.6	170.4	170.1	170.1	170.0	170.0	112.8	99.0
Motor vehicles ⁴	178.9	178.8	178.4	176.9	176.8	176.5	176.1	175.1	175.1	175.1	175.1	175.1	175.1	135.5	92.5
Passenger cars.....	187.1	187.1	187.1	187.1	187.0	186.6	186.4	185.2	185.2	185.2	185.2	185.2	185.7	142.8	95.6
Trucks.....	142.9	142.2	140.6	133.9	133.9	133.9	133.1	133.0	133.0	133.0	132.7	132.8	133.0	104.3	77.4
Nonferrous metals.....	191.1	187.9	182.5	181.7	173.3	166.1	156.3	150.6	148.4	136.3	128.9	127.2	128.1	99.2	74.6
Plumbing and heating ⁴	183.7	183.7	183.6	182.5	177.2	166.9	164.6	156.5	156.3	156.4	154.7	151.9	148.7	106.0	79.3
Plumbing ⁴	139.4	139.4	139.3	137.3	132.0	125.4	123.9	116.9	116.7	116.6	(4)	(4)	(4)	(4)	(4)
Building materials.....	228.1	226.2	221.4	217.8	218.9	219.6	213.9	207.3	202.1	198.1	194.8	194.2	192.8	129.9	89.6
Brick and tile.....	181.7	181.6	179.9	178.5	178.1	169.7	167.8	167.4	164.3	163.9	163.4	163.3	163.2	121.3	90.5
Cement.....	147.1	147.2	141.2	140.8	140.2	136.3	135.5	135.3	134.9	134.9	134.9	134.9	134.9	102.6	91.3
Lumber.....	359.8	356.8	348.4	347.6	358.4	371.5	357.6	338.0	322.6	310.8	299.4	295.9	292.1	176.0	90.1
Paint, paint materials ⁴	164.0	162.1	154.9	148.2	145.7	145.9	142.4	138.6	137.7	136.8	136.7	138.2	139.0	108.6	82.1
Prepared paint ⁴	153.3	152.1	147.3	143.6	142.4	142.4	141.3	138.6	138.5	138.5	138.5	138.5	138.5	99.3	92.9
Paint materials ⁴	178.9	176.2	166.2	156.1	152.1	152.4	146.2	141.3	139.5	137.6	137.3	140.5	142.2	120.9	71.8
Plumbing and heating ⁴	183.7	183.7	183.6	182.5	177.2	166.9	164.6	156.5	156.3	156.4	154.7	151.9	148.7	106.0	79.3
Plumbing ⁴	139.4	139.4	139.3	137.3	132.0	125.4	123.9	116.9	116.7	116.6	(4)	(4)	(4)	(4)	(4)
Structural steel.....	204.3	204.3	204.3	191.6	191.6	191.6	191.6	191.6	191.6	191.6	191.6	191.6	191.6	120.1	107.3
Other bldg. materials.....	198.2	195.8	193.8	189.4	186.6	182.5	178.7	177.4	175.0	172.7	172.0	172.2	171.1	118.4	89.5
Chemicals and allied products.....	147.2	144.4	139.6	135.6	132.2	128.6	122.5	118.1	114.5	116.4	117.1	116.3	115.2	96.4	74.2
Chemicals.....	139.0	138.1	136.1	134.3	131.6	125.4	122.1	119.3	117.3	116.5	116.4	115.4	114.7	98.0	83.8
Drug and pharmaceutical materials.....	185.4	184.6	175.1	163.8	161.1	153.4	135.0	129.1	122.7	122.3	122.0	121.9	121.4	109.4	77.1
Fertilizer materials.....	118.1	117.3	115.6	112.0	111.2	111.4	112.1	110.1	108.4	116.8	117.4	117.3	116.9	82.7	65.5
Mixed fertilizers.....	108.3	108.3	107.4	104.7	103.1	103.1	103.1	103.0	103.3	103.3	103.5	103.5	103.5	96.6	73.1
Oils and fats.....	217.3	200.4	180.9	171.5	160.3	163.9									

E: Work Stoppages

TABLE E-1: Work Stoppages Resulting From Labor-Management Disputes ¹

Month and year	Number of stoppages		Workers involved in stoppages		Man-days idle during month or year	
	Beginning in month or year	In effect during month	Beginning in month or year	In effect during month	Number	Percent of estimated working time
1935-39 (average).....	2,862	-----	1,130,000	-----	16,900,000	0.27
1945.....	4,750	-----	3,470,000	-----	38,000,000	.47
1946.....	4,985	-----	4,600,000	-----	116,000,000	1.43
1947.....	3,693	-----	2,170,000	-----	34,600,000	.41
1948.....	3,419	-----	1,960,000	-----	34,100,000	.37
1949.....	3,606	-----	3,030,000	-----	50,500,000	.59
1950.....	4,843	-----	2,410,000	-----	38,800,000	.44
1950: February.....	206	358	56,500	527,000	8,590,000	1.39
March.....	298	453	85,200	566,000	3,870,000	.51
April.....	407	605	159,000	294,000	3,280,000	.49
May.....	485	723	354,000	508,000	3,270,000	.44
June.....	483	768	278,000	373,000	2,630,000	.34
July.....	463	732	224,000	389,000	2,750,000	.39
August.....	635	918	346,000	441,000	2,660,000	.32
September.....	521	820	270,000	450,000	3,510,000	.48
October.....	550	801	197,000	330,000	2,590,000	.32
November.....	329	605	200,000	308,000	2,050,000	.27
December.....	218	423	61,100	114,000	912,000	.12
1951: January ²	400	550	185,000	215,000	1,200,000	.15
February ²	400	600	220,000	300,000	1,700,000	.25

¹ All known work stoppages, arising out of labor-management disputes, involving six or more workers and continuing as long as a full day or shift are included in reports of the Bureau of Labor Statistics. Figures on "workers involved" and "man-days idle" cover all workers made idle for one or more

shifts in establishments directly involved in a stoppage. They do not measure the indirect or secondary effects on other establishments or industries whose employees are made idle as a result of material or service shortages.

² Preliminary.

F: Building and Construction

TABLE F-1: Expenditures for New Construction ¹

[Value of work put in place]

Type of construction	Expenditures (in millions)														
	1951			1950									1950	1949	
	Mar. ³	Feb. ³	Jan.	Dec.	Nov.	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	Total	Total
Total new construction ⁴	\$2,122	\$1,933	\$2,068	\$2,235	\$2,554	\$2,750	\$2,816	\$2,799	\$2,676	\$2,535	\$2,282	\$1,988	\$1,750	\$27,715	\$22,594
Private construction.....	1,578	1,501	1,571	1,686	1,885	2,006	2,072	2,074	1,998	1,883	1,689	1,482	1,313	20,648	16,204
Residential building (nonfarm).....	848	820	901	980	1,126	1,237	1,306	1,310	1,253	1,171	1,035	882	741	12,500	8,290
New dwelling units.....	775	750	830	900	1,035	1,135	1,195	1,200	1,145	1,065	940	800	675	11,425	7,280
Additions and alterations.....	57	53	54	62	73	84	94	93	93	92	82	70	55	900	825
Nonhousekeeping ⁵	16	17	17	18	18	17	17	17	15	14	13	12	11	175	185
Nonresidential building (nonfarm) ⁶	396	383	376	392	401	379	352	332	325	306	274	248	249	3,767	3,228
Industrial.....	142	135	128	125	119	111	101	90	84	78	73	70	69	1,059	972
Commercial.....	126	121	122	138	147	135	121	114	116	110	92	76	77	1,282	1,027
Warehouses, office and loft buildings.....	44	46	47	47	46	42	39	35	31	28	26	24	25	398	321
Stores, restaurants, and garages.....	82	75	75	91	101	93	82	79	85	82	66	52	52	884	706
Other nonresidential building.....	128	127	126	129	135	133	130	128	125	118	109	102	103	1,426	1,229
Religious.....	35	36	37	39	40	39	38	37	35	33	30	28	28	407	360
Educational.....	26	27	28	30	30	29	28	26	25	23	21	20	21	298	269
Social and recreational.....	16	17	18	20	22	23	23	24	23	21	19	17	17	247	262
Hospital and institutional ⁷	32	31	30	29	30	30	29	30	30	30	29	27	27	342	202
Miscellaneous.....	19	16	13	11	13	12	12	11	12	11	10	10	10	132	136
Farm construction.....	83	74	69	66	74	88	106	116	113	108	100	88	79	1,087	1,292
Public utilities.....	246	219	220	243	277	295	301	305	296	285	267	253	235	3,182	3,316
Railroad.....	20	15	22	24	28	29	30	30	29	28	27	26	21	310	352
Telephone and telegraph.....	36	31	29	34	40	40	43	45	45	42	41	40	38	470	533
Other public utilities.....	190	173	169	185	209	226	228	230	222	215	199	187	176	2,402	2,431
All other private ⁸	5	5	5	5	7	7	7	11	11	13	13	11	9	112	78
Public construction.....	544	432	497	549	669	744	744	725	678	652	593	506	437	7,067	6,390
Residential building ⁹	35	29	29	28	31	30	28	27	24	28	28	28	28	341	359
Nonresidential building (other than military or naval facilities).....	229	198	214	209	221	230	214	205	196	191	187	178	170	2,310	2,056
Industrial.....	39	30	34	29	30	31	22	19	18	16	17	13	11	220	177
Educational.....	115	108	110	110	112	114	108	102	98	94	90	87	84	1,158	934
Hospital and institutional.....	39	31	37	37	40	42	40	40	37	39	40	40	40	470	477
Other nonresidential.....	36	29	33	33	39	43	44	44	43	42	40	38	35	462	468
Military and naval facilities ¹⁰	34	29	27	25	26	28	22	16	10	10	8	9	8	180	137
Highways.....	115	65	105	155	240	290	310	305	275	250	210	145	100	2,425	2,129
Sewer and water.....	53	49	52	55	59	62	60	58	56	55	54	52	49	655	619
Miscellaneous public service enterprises ¹¹	13	8	10	11	17	20	20	21	18	17	15	13	11	185	203
Conservation and development.....	58	49	54	60	67	76	82	85	91	92	82	73	62	875	792
All other public ¹²	7	5	6	6	8	8	8	8	8	9	9	8	9	96	95

¹ Joint estimates of the Bureau of Labor Statistics, U. S. Department of Labor, and the Building Materials Division, U. S. Department of Commerce. Estimated construction expenditures represent the monetary value of the volume of work accomplished during the given period of time. These figures should be differentiated from permit valuation data reported in the tabulations for building authorized (tables F-3 and F-4) and the data on value of contract awards reported in table F-2.

² Preliminary.

³ Revised.

⁴ Includes major additions and alterations.

⁵ Includes hotels, dormitories, and tourist courts and cabins.

⁶ Expenditures by privately owned public utilities for nonresidential building are included under "Public utilities."

⁷ Includes Federal contributions toward construction of private nonprofit hospital facilities under the National Hospital Program.

⁸ Covers privately owned sewer and water facilities, roads and bridges, and miscellaneous nonbuilding items such as parks and playgrounds.

⁹ Includes nonhousekeeping public residential construction as well as housekeeping units.

¹⁰ Covers all construction, building as well as nonbuilding.

¹¹ Covers primarily publicly owned airports, electric light and power systems, and local transit facilities.

¹² Covers public construction not elsewhere classified, such as parks, playgrounds, and memorials.

TABLE F-2: Value of Contracts Awarded and Force-Account Work Started on Federally Financed New Construction, by Type of Construction ¹

Period	Value (in thousands)															
	Total new construction ²	Air ports ³	Building								Conservation and development					
			Total	Residential	Nonresidential					Total	Reclamation	River, harbor, and flood control	Highways	All other ⁶		
					Total	Educational ⁴	Hospitals and institutional								Administrative and general ⁵	Other non-residential
							Total	Veterans	Other							
1935	\$1,478,073	(7)	\$442,782	\$7,833	\$434,949	(8)	(8)	(8)	(8)	(8)	(8)	\$438,725	\$158,027	\$280,698	\$381,037	\$215,529
1936	1,533,439	(7)	561,394	63,465	497,929	(8)	(8)	(8)	(8)	(8)	(8)	189,710	73,797	115,913	511,685	270,650
1937	990,410	(7)	344,567	17,239	327,328	(8)	(8)	(8)	(8)	(8)	(8)	133,010	59,051	73,959	360,865	151,968
1938	1,609,208	(7)	676,542	31,809	644,733	(8)	(8)	(8)	(8)	(8)	(8)	303,874	175,382	128,492	372,238	256,554
1939	1,586,604	\$4,753	669,222	231,071	438,151	(8)	(8)	(8)	(8)	(8)	(8)	225,423	115,612	109,811	355,701	331,505
1940	2,316,467	137,112	1,537,910	244,671	1,293,239	(8)	(8)	(8)	(8)	(8)	(8)	197,589	69,028	128,561	364,048	79,808
1941	5,931,536	499,427	4,422,131	322,248	4,099,883	(8)	(8)	(8)	(8)	(8)	(8)	199,684	41,880	157,804	446,903	363,391
1942	7,871,986	579,176	6,226,878	565,247	5,661,631	(8)	(8)	(8)	(8)	(8)	(8)	217,795	150,708	67,087	347,988	500,149
1943	2,877,044	243,443	2,068,337	405,537	1,662,800	(8)	(8)	(8)	(8)	(8)	(8)	155,737	101,270	54,467	161,852	247,675
1944	1,861,449	110,872	1,438,849	117,504	1,321,345	(8)	(8)	(8)	(8)	(8)	(8)	112,415	66,679	45,736	111,805	87,508
1945	1,092,181	41,219	806,917	60,535	746,382	(8)	(8)	(8)	(8)	(8)	(8)	72,150	30,765	41,385	100,969	70,926
1946	1,502,701	15,068	617,132	452,204	164,928	\$14,664	\$14,281	\$9,032	\$5,249	\$9,713	\$126,270	290,163	149,870	140,293	534,653	45,685
1947	1,473,910	25,075	454,593	60,694	393,899	47,750	101,992	96,140	5,852	32,550	211,607	307,695	75,483	232,212	659,645	26,902
1948	1,906,466	55,577	543,118	47,198	495,920	1,424	263,296	168,616	94,680	29,926	201,274	494,871	147,732	347,139	767,460	45,440
1949	2,172,333	49,317	878,231	46,800	831,431	1,041	353,671	123,967	229,704	88,856	387,863	497,557	184,803	312,754	690,469	56,759
1950 ⁹	2,503,818	39,847	1,125,259	14,508	1,110,751	2,630	307,053	115,937	191,116	56,388	744,680	421,181	195,767	225,414	832,974	84,557
1949: January	97,047	5,520	40,410	101	40,309	148	8,192	428	7,764	25,008	6,961	15,141	7,596	7,545	34,465	1,511
February	101,298	242	45,058	2,535	42,523	635	12,651	5,477	7,174	22,719	6,518	24,032	3,083	20,949	29,000	2,966
March	182,992	4,288	45,051	4,602	40,449	0	26,663	9,612	17,051	1,747	12,039	84,342	22,546	61,796	41,646	7,665
April	133,535	4,212	34,148	4,498	29,650	18	21,352	1,204	20,148	949	7,331	39,899	18,778	21,121	52,099	3,177
May	257,834	7,233	71,383	6,245	65,138	30	23,649	1,045	22,604	13,658	27,801	89,536	61,537	27,999	83,769	5,913
June	325,997	12,262	143,870	23,017	120,853	0	64,985	14,814	50,171	10,564	45,304	80,530	26,603	53,927	80,348	8,987
July	142,768	4,818	37,979	821	37,158	10	22,756	202	22,554	2,018	12,374	22,115	6,822	15,293	75,448	2,408
August	272,671	3,385	134,548	49	134,499	140	43,544	25,492	18,052	969	89,846	52,304	12,375	39,929	79,020	3,414
September	171,714	1,902	82,101	416	81,685	0	56,125	26,500	29,625	538	24,992	20,679	10,179	10,500	63,035	3,997
October	103,616	3,413	36,718	672	36,046	0	15,004	8,737	6,267	4,333	16,709	12,914	1,091	11,823	49,910	661
November	222,963	790	131,881	9	131,872	60	16,600	7,387	9,213	5,308	109,904	42,186	5,677	36,509	38,100	9,306
December	160,598	1,252	75,084	3,805	71,279	0	42,150	23,069	19,081	1,045	28,084	13,879	8,516	5,363	63,629	6,754
1950: January	126,308	4,383	46,513	109	46,404	144	27,477	19,328	8,149	12,805	5,978	25,578	17,933	7,645	40,998	8,836
February	112,191	2,899	35,443	127	35,316	138	30,676	17,302	13,374	1,052	25,537	25,537	7,087	18,450	42,357	5,955
March	203,476	7,997	66,727	1,036	65,691	20	19,901	14,391	5,510	3,457	2,313	101,266	69,797	31,469	61,026	6,460
April	151,822	5,556	59,780	3,406	56,374	70	35,797	21,459	14,338	2,364	18,143	19,063	2,763	16,300	63,453	3,970
May	209,410	3,258	51,413	1,493	49,920	0	27,558	13,299	14,259	2,474	19,888	67,473	7,726	59,747	80,618	6,648
June	327,028	3,066	122,303	5,223	117,080	1,430	41,655	7,629	34,026	25,187	48,808	76,898	43,620	33,278	110,963	13,798
July	145,157	2,929	46,410	634	45,776	616	31,177	8,007	23,170	2,172	11,811	13,474	10,531	2,943	77,869	4,475
August	133,914	2,709	26,250	33	26,217	174	11,595	200	11,395	1,732	12,716	15,516	8,364	7,152	83,292	6,147
September	171,590	1,535	76,475	1,284	75,191	0	33,915	12,957	20,958	1,532	39,744	16,084	9,762	6,322	72,300	5,196
October	236,225	3,382	142,524	200	142,324	19	18,734	643	18,091	1,226	122,345	19,537	13,471	6,066	55,531	15,251
November	140,268	1,266	22,558	233	22,325	2	14,314	676	13,638	1,846	6,163	32,497	1,753	30,744	81,135	2,812
December ¹⁰	546,429	867	468,863	730	468,133	17	14,254	46	14,208	541	1453,321	8,258	2,960	5,298	63,432	5,009
1951: January ⁹	356,349	9,081	50,743	817	49,926	96	12,756	110	12,646	661	36,413	212,417	¹² 206,044	6,373	74,129	9,979

¹ Excludes projects classified as "secret" by the military. Data for Federal-aid programs cover amounts contributed by both owner and the Federal Government. Force-account work is done not through a contractor, but directly by a government agency, using a separate work force to perform non-maintenance construction on the agency's own properties.
² Includes major additions and alterations.
³ Excludes hangars and other buildings, which are included under "Other nonresidential" building construction.
⁴ Includes educational facilities under the Federal temporary re-use educational facilities program.
⁵ Includes post offices, armories, offices, and customhouses. Includes contract awards for construction at United Nations Headquarters in New York City, the principal awards having been for the Secretariat Building

(January 1949: \$23,810,000), for the Meeting Hall (January 1950: \$11,238,000), and for the General Assembly Building (June 1950: \$10,704,000).
⁶ Includes electrification projects, water-supply and sewage-disposal systems, railroad construction, and other types of projects not elsewhere classified.
⁷ Included in "All other."
⁸ Unavailable.
⁹ Preliminary.
¹⁰ Revised.
¹¹ Includes primarily construction projects for the Atomic Energy Commission.
¹² Includes primarily steam-electric generating projects for the Tennessee Valley Authority.

TABLE F-3: Urban Building Authorized, by Principal Class of Construction and by Type of Building ¹

Period	Valuation (in thousands)									Number of new dwelling units—House-keeping only				
	Total all classes ²	New residential building				Publicly financed dwelling units	Non-house-keeping ³	New non-residential building	Additions, alterations, and repairs	Privately financed				Publicly financed
		Housekeeping								Total	1-family	2-family ⁴	Multi-family ⁴	
		Privately financed dwelling units												
Total	1-family	2-family ⁴	Multi-family ⁴											
1942	\$2,707,573	\$598,570	\$478,658	\$42,629	\$77,283	\$296,933	\$22,910	\$1,510,688	\$278,472	184,892	138,908	15,747	30,237	95,946
1946	4,743,414	2,114,833	1,830,280	103,042	181,531	355,587	43,369	1,458,602	771,023	430,195	358,151	24,326	47,718	98,310
1947	5,563,348	2,885,374	2,361,752	151,036	372,586	42,249	29,831	1,713,489	892,404	502,312	393,606	33,423	75,283	5,833
1948	6,972,784	3,422,927	2,745,219	181,493	496,215	139,334	38,034	2,367,940	1,004,549	516,179	392,532	36,306	87,341	15,114
1949	7,396,274	3,724,924	2,845,399	132,365	747,160	285,627	39,785	2,408,445	937,493	575,286	413,543	26,431	135,312	32,194
1950 ⁵	10,408,292	5,803,912	4,845,104	179,214	779,594	301,961	84,508	3,127,769	1,090,142	796,143	623,330	33,302	139,511	34,363
1950: ⁶ January	579,262	320,227	243,486	11,452	65,289	8,396	2,421	182,302	65,917	49,596	36,026	2,306	11,264	868
February	576,563	355,115	283,452	11,880	59,783	1,506	2,072	156,734	60,236	53,141	40,234	2,375	10,532	177
March	855,825	543,323	442,046	21,187	80,090	9,197	9,018	208,538	85,749	79,190	59,787	4,235	15,168	1,135
April	923,723	577,702	481,674	18,046	77,982	14,677	4,725	238,650	87,969	81,188	63,382	3,237	14,569	1,766
May	1,056,835	644,098	534,758	20,000	89,340	28,041	22,184	261,512	101,001	88,814	69,377	3,859	15,578	3,271
June	1,045,894	613,915	518,444	15,421	80,050	4,584	5,093	308,910	113,391	82,934	66,885	2,828	13,221	513
July	1,065,117	589,643	512,594	17,321	59,728	41,997	7,935	313,522	112,020	79,473	64,586	3,118	11,769	4,590
August	1,097,651	606,346	501,489	17,328	87,529	36,510	8,690	330,836	115,268	79,140	61,740	2,992	14,408	4,041
September	848,041	438,852	375,214	13,308	50,330	37,237	6,599	266,006	99,346	58,172	46,498	2,236	9,438	4,154
October	870,325	428,078	363,263	12,782	52,033	14,480	4,406	329,426	93,955	55,210	43,761	2,313	9,136	1,619
November	707,673	341,335	297,465	11,192	32,678	29,261	5,546	250,616	80,915	44,588	36,244	2,056	6,288	2,940
December	781,384	345,278	291,219	9,297	44,762	76,095	4,919	280,717	74,375	44,697	34,810	1,747	8,140	9,289
1951: January ⁷	752,490	379,022	329,480	14,097	35,445	9,066	3,123	265,052	96,227	48,767	39,329	2,811	6,627	972

¹ Building for which building permits were issued and Federal contracts awarded in all urban places, including an estimate of building undertaken in some smaller urban places that do not issue permits.

The data cover federally and nonfederally financed building construction combined. Estimates of non-Federal (private and State and local government) urban building construction are based primarily on building-permit reports received from places containing about 85 percent of the urban population of the country; estimates of federally financed projects are compiled from notifications of construction contracts awarded, which are obtained from other Federal agencies. Data from building permits are not adjusted to allow for lapsed permits or for lag between permit issuance and the start of construction. Thus, the estimates do not represent construction actually started during the month.

Urban, as defined by the Bureau of the Census, covers all incorporated places of 2,500 population or more in 1940, and, by special rule, a small number of unincorporated civil divisions.

² Covers additions, alterations, and repairs, as well as new residential and nonresidential building.

³ Includes units in 1-family and 2-family structures with stores.

⁴ Includes units in multifamily structures with stores.

⁵ Covers hotels, dormitories, tourist cabins, and other nonhousekeeping residential buildings.

⁶ Revised.

⁷ Preliminary.

TABLE F-4: New Nonresidential Building Authorized in All Urban Places,¹ by General Type and by Geographic Division²

Geographic division and type of new nonresidential building	Valuation (in thousands)														
	1951		1950 ³										1950 ³	1949	
	Jan. ⁴	Dec. ³	Nov.	Oct.	Sept.	Aug.	July	June	May	Apr.	Mar.	Feb.	Jan.	Total	Total
All types.....	\$265,052	\$280,717	\$250,616	\$329,426	\$266,006	\$330,836	\$313,522	\$308,910	\$261,512	\$238,650	\$208,538	\$156,734	\$182,302	\$3,127,769	\$2,408,445
New England.....	10,474	16,463	13,675	15,652	12,701	21,082	19,819	13,728	17,966	15,523	11,973	17,451	17,356	193,386	115,582
Middle Atlantic.....	41,761	36,916	47,556	68,678	45,953	41,646	50,614	62,541	41,651	30,617	25,807	20,653	43,951	516,583	429,042
East North Central.....	62,375	42,105	46,313	95,545	62,556	71,914	63,031	65,130	59,978	69,232	47,828	28,423	24,053	675,555	492,384
West North Central.....	20,627	17,797	21,064	25,098	24,489	27,800	24,731	40,841	24,910	22,422	15,939	10,674	6,976	262,737	203,409
South Atlantic.....	37,526	37,650	25,316	26,447	31,628	42,836	35,380	35,010	35,008	29,360	27,538	22,434	27,196	375,803	311,540
East South Central.....	11,347	10,826	7,905	16,440	8,407	13,430	16,478	16,438	8,889	11,134	10,638	10,505	12,964	144,084	133,377
West South Central.....	34,999	60,882	28,016	34,900	30,808	43,115	43,248	33,131	28,827	22,876	22,613	16,359	23,528	388,201	270,407
Mountain.....	6,678	8,610	8,929	6,955	13,453	15,286	8,430	10,813	7,310	7,353	16,307	5,740	3,077	112,265	104,112
Pacific.....	39,265	49,468	51,845	39,708	36,014	53,731	51,795	31,280	36,970	30,133	30,496	24,488	23,218	450,155	348,592
Industrial buildings ⁵	36,675	26,646	27,228	44,892	29,203	31,733	29,866	24,675	20,893	18,962	15,353	11,896	15,916	296,803	203,699
New England.....	1,415	1,062	1,653	1,755	1,558	2,173	1,282	928	1,225	1,415	431	328	190	13,999	6,450
Middle Atlantic.....	11,703	5,705	2,586	7,281	4,308	4,762	11,235	3,927	5,219	2,734	3,000	1,406	3,516	55,679	40,386
East North Central.....	8,566	8,074	9,619	23,745	13,572	11,948	7,005	9,077	6,955	6,217	5,457	4,706	4,455	110,829	77,037
West North Central.....	2,266	1,696	5,149	3,077	1,143	2,906	2,223	1,109	2,200	1,329	1,844	984	709	23,369	15,689
South Atlantic.....	3,168	1,495	963	1,017	1,033	1,619	1,297	3,298	778	1,201	1,019	522	2,778	17,019	19,173
East South Central.....	1,832	1,972	1,456	1,168	946	1,000	1,888	417	234	1,708	1,264	885	416	13,355	8,736
West South Central.....	2,612	903	1,677	2,388	1,815	2,332	2,025	1,411	691	1,664	851	784	1,262	17,800	6,859
Mountain.....	440	789	190	278	846	592	1,161	1,420	288	330	349	90	135	5,469	4,370
Pacific.....	4,673	4,950	3,936	4,182	3,983	4,042	2,751	2,990	3,302	2,363	2,139	2,191	2,454	39,284	24,999
Commercial buildings ⁶	103,099	119,091	95,985	117,952	93,691	124,698	96,505	97,177	90,895	83,198	85,687	55,617	62,088	1,122,883	752,810
New England.....	3,783	7,244	2,115	5,343	5,700	3,270	5,170	4,767	6,327	6,241	4,338	1,380	1,780	53,675	36,668
Middle Atlantic.....	17,582	14,622	28,391	37,017	14,293	18,846	13,096	16,498	12,825	13,227	11,261	10,559	22,509	212,645	127,049
East North Central.....	18,072	15,107	15,971	17,667	18,152	24,797	20,370	20,683	18,857	15,242	16,952	9,930	7,558	201,314	147,620
West North Central.....	5,809	6,873	5,045	8,335	10,336	10,984	7,720	8,813	10,780	10,371	8,209	3,454	3,185	94,104	52,907
South Atlantic.....	17,325	17,467	8,553	11,877	10,280	16,071	12,397	13,016	11,678	10,904	11,642	10,387	5,718	139,990	106,037
East South Central.....	7,065	4,208	2,226	3,344	4,055	4,720	5,255	5,662	4,060	3,512	3,895	2,893	2,747	46,076	36,020
West South Central.....	16,115	35,996	15,383	14,578	10,613	21,801	16,006	12,645	11,236	10,431	10,144	6,290	10,005	175,129	101,025
Mountain.....	2,424	3,014	3,620	3,308	4,758	6,994	3,948	3,425	3,662	3,639	5,660	4,070	1,483	47,481	25,589
Pacific.....	14,924	14,560	14,682	16,453	15,505	17,216	12,543	11,668	11,469	9,631	14,187	7,154	7,103	152,169	119,895
Community buildings ⁷	89,726	98,545	85,024	118,820	111,346	130,167	136,091	127,388	114,538	107,971	87,787	71,427	70,973	1,260,078	1,018,637
New England.....	4,556	6,300	9,025	7,238	3,520	11,839	11,743	6,528	9,151	5,632	6,487	15,233	14,515	107,641	43,770
Middle Atlantic.....	10,470	7,959	12,862	20,957	24,137	13,764	19,772	18,849	18,825	10,797	9,544	7,827	3,744	169,036	179,463
East North Central.....	24,816	14,077	16,401	37,411	21,658	24,964	26,598	26,119	24,911	42,280	20,153	9,967	10,490	275,029	201,808
West North Central.....	11,277	6,796	6,673	10,808	8,636	10,417	7,002	26,763	8,585	7,863	5,101	4,468	2,503	105,603	100,282
South Atlantic.....	13,753	15,096	13,191	11,327	19,003	17,949	17,873	11,921	20,295	14,214	13,649	8,320	16,977	179,635	103,666
East South Central.....	1,653	3,036	3,860	3,438	2,281	6,803	8,236	9,439	3,728	4,401	5,155	6,352	5,800	62,529	71,114
West South Central.....	7,393	17,552	9,257	12,641	13,942	14,980	22,370	14,177	11,632	7,273	8,798	7,006	7,061	146,688	135,620
Mountain.....	2,937	3,756	4,164	1,709	6,563	4,929	2,888	3,280	2,387	1,946	9,787	1,142	746	43,296	59,923
Pacific.....	12,871	23,643	9,593	13,291	11,607	24,522	16,611	10,311	15,024	13,567	9,293	11,122	9,137	170,721	122,991
Public buildings ⁸	13,967	9,226	19,225	11,719	5,087	7,229	15,506	35,215	5,615	6,093	1,702	4,159	14,119	134,894	153,103
New England.....	33	809	0	70	30	53	216	481	128	542	96	0	158	2,584	4,863
Middle Atlantic.....	662	2,495	247	611	557	688	1,211	20,306	992	734	110	52	12,174	40,178	36,154
East North Central.....	3,997	527	642	329	742	382	1,561	3,411	684	557	234	177	268	9,513	8,157
West North Central.....	48	1,621	0	111	30	711	108	1,079	262	425	58	300	192	4,896	9,560
South Atlantic.....	653	826	92	558	372	3,869	952	4,496	176	1,337	132	1,823	375	15,008	50,313
East South Central.....	0	366	35	7,966	0	171	0	318	92	331	0	0	0	9,279	6,257
West South Central.....	6,195	303	178	820	2,566	185	573	1,859	145	966	477	71	126	8,268	5,041
Mountain.....	451	695	29	494	186	247	0	1,159	235	70	15	56	54	3,240	5,436
Pacific.....	1,928	1,584	18,001	759	604	925	10,885	2,106	2,901	1,130	581	1,682	771	41,928	27,322
Public works and utility buildings ⁹	9,507	17,939	7,119	14,235	7,432	9,954	11,318	6,403	6,681	5,404	5,558	5,153	8,968	106,164	148,375
New England.....	323	279	119	161	941	2,769	491	248	49	569	236	187	430	6,478	16,012
Middle Atlantic.....	66	5,358	1,322	554	759	1,263	2,908	325	1,385	1,333	532	307	823	16,868	27,651
East North Central.....	4,576	3,260	206	10,279	607	1,830	1,111	2,348	424	2,287	2,112	361	26	26,585	22,302
West North Central.....	750	323	1,534	266	2,233	606	622	1,207	318	760	319	977	149	9,314	11,337
South Atlantic.....	842	1,766	340	835	105	200	1,281	623	592	540	366	765	204	7,658	23,281
East South Central.....	11	647	7	370	225	494	257	221	80	308	0	638	3	3,161	7,223
West South Central.....	903	4,310	254	433	543	170	147	799	1,239	812	663	292	3,982	13,646	11,944
Mountain.....	38	0	125	180	338	361	370	474	41	406	2	73	332	2,702	2,566
Pacific.....	1,998	1,996	3,211	1,457	1,536	2,490	3,246	1,359	488	480	845	440	2,049	19,597	26,059
All other buildings ¹⁰	12,078	9,270	16,036	21,807	19,247	27,416	24,236	18,152	22,890	17,023	12,449	8,483	10,238	207,247	131,821
New England.....	364	439	763	1,085	952	978	917	776	1,086	1,124	355	323	283	9,109	7,819
Middle Atlantic.....	1,278	777	2,258	1,899	2,322	2,302	2,636	2,405	1,792	1,300	1,002	1,151	1,857	22,177	15,339
East North Central.....	2,348	1,060	3,474	6,054	7,825	7,963	5,738	4,729	6,223	4,512	2,245	1,531	871	52,285	35,460
West North Central.....	477	488	2,663	2,501	2,111	2,176	7,056	1,870	2,765	1,674	1,408	501	238	25,451	13,634
South Atlantic.....	1,785	1,000	2,177	833	835	3,088	1,580	1,656	1,489	1,164	910				

TABLE F-5: Number and Construction Cost of New Permanent Nonfarm Dwelling Units Started, by Urban or Rural Location, and by Source of Funds ¹

Period	Number of new dwelling units started									Estimated construction cost (in thousands) ²		
	All units			Privately financed			Publicly financed			Total	Privately financed	Publicly financed
	Total non-farm	Urban	Rural non-farm	Total non-farm	Urban	Rural non-farm	Total non-farm	Urban	Rural non-farm			
1925	937,000	752,000	185,000	937,000	752,000	185,000	0	0	0	\$4,475,000	\$4,475,000	0
1933 ³	93,000	45,000	48,000	93,000	45,000	48,000	0	0	0	285,446	285,446	0
1941 ⁴	706,100	434,300	271,800	619,500	369,500	250,000	86,600	64,800	21,800	2,825,895	2,530,765	\$295,130
1944 ⁵	141,800	96,200	45,600	138,700	93,200	45,500	3,100	3,000	100	495,054	483,231	11,823
1946	670,500	403,700	266,800	662,500	395,700	266,800	8,000	8,000	0	3,769,767	3,713,776	55,991
1947	849,000	479,800	369,200	845,600	476,400	369,200	3,400	3,400	0	5,642,798	5,617,425	25,373
1948	931,600	524,900	406,700	913,500	510,000	403,500	18,100	14,900	3,200	7,203,119	7,028,980	174,139
1949 ⁶	1,025,100	588,800	436,300	988,800	556,600	432,200	36,300	32,200	4,100	7,702,971	7,374,269	328,702
1949: First quarter	169,800	94,200	75,600	159,400	84,100	75,300	10,400	10,100	300	1,287,228	1,189,640	97,588
January	50,000	29,500	20,500	46,300	25,800	20,500	3,700	3,700	(?)	374,020	340,973	33,047
February	50,400	28,000	22,400	47,800	25,500	22,300	2,600	2,500	100	382,778	357,270	25,508
March	69,400	36,700	32,700	65,300	32,800	32,500	4,100	3,900	200	530,430	491,397	39,033
Second quarter	279,200	157,300	121,900	267,200	147,800	119,400	12,000	9,500	2,500	2,120,637	2,007,563	113,074
April	88,300	49,500	38,800	85,000	46,700	38,300	3,300	2,800	500	666,969	637,170	29,799
May	95,400	53,900	41,500	91,200	50,600	40,600	4,200	3,300	900	733,967	692,063	41,904
June	95,500	53,900	41,600	91,000	50,500	40,500	4,500	3,400	1,100	719,701	678,330	41,371
Third quarter	298,000	171,600	126,400	289,900	164,500	125,400	8,100	7,100	1,000	2,222,103	2,153,937	68,166
July	96,100	53,300	42,800	92,700	50,100	42,600	3,400	3,200	200	710,341	682,863	27,478
August	99,000	55,900	43,100	96,600	54,300	42,300	2,400	1,600	800	743,389	722,208	21,181
September	102,900	62,400	40,500	100,600	60,100	40,500	2,300	2,300	(?)	768,373	748,866	19,507
Fourth quarter	278,100	165,700	112,400	272,300	160,200	112,100	5,800	5,500	300	2,073,003	2,023,129	49,874
October	104,300	60,000	44,300	101,900	57,700	44,200	2,400	2,300	100	776,674	756,712	19,962
November	95,500	56,700	38,800	93,400	54,700	38,700	2,100	2,000	100	723,097	704,220	18,877
December	78,300	49,000	29,300	77,000	47,800	29,200	1,300	1,200	100	573,232	562,197	11,035
1950: First quarter	278,900	167,800	111,100	276,100	165,600	110,500	2,800	2,200	600	2,162,636	2,138,565	24,071
January	78,700	48,200	30,500	77,800	47,300	30,500	900	900	0	589,997	581,497	8,500
February	82,900	51,000	31,900	82,300	50,800	31,500	600	200	400	637,753	632,690	5,063
March	117,300	68,600	48,700	116,000	67,500	48,500	1,300	1,100	200	934,886	924,379	10,508
Second quarter	428,800	247,000	179,800	420,700	241,500	179,200	6,100	5,500	600	3,564,158	3,511,204	52,954
April	133,400	78,800	54,600	131,300	77,000	54,300	2,100	1,800	300	1,093,920	1,075,644	18,276
May	149,100	85,500	63,600	145,800	82,300	63,500	3,300	3,200	100	1,233,672	1,204,978	28,694
June	144,300	82,700	61,600	143,600	82,200	61,400	700	500	200	1,236,566	1,230,582	5,984
Third quarter	406,900	238,200	168,700	393,900	225,500	168,400	13,000	12,700	300	3,564,509	3,446,722	117,787
July	144,400	84,200	60,200	139,800	79,600	60,200	4,600	4,600	(?)	1,253,102	1,210,745	42,357
August	141,900	83,600	58,300	137,800	79,600	58,200	4,100	4,000	100	1,267,746	1,230,238	37,508
September	120,600	70,400	50,200	116,300	66,300	50,000	4,300	4,100	200	1,043,661	1,005,739	37,922
Fourth quarter	284,800	170,000	114,000	283,800	170,000	114,000	21,000	21,000	0	2,515,714	2,332,834	182,880
October	102,500	59,400	43,100	100,900	57,800	43,100	1,600	1,600	(?)	916,663	902,190	14,473
November ⁸	87,300	53,100	34,200	82,800	48,600	34,200	4,500	4,500	(?)	769,386	724,876	44,510
December	95,000	(⁹)	(⁹)	80,100	(⁹)	(⁹)	14,900	(⁹)	(⁹)	829,665	705,768	123,897
1951: January ¹⁰	87,000	(⁹)	(⁹)	83,500	(⁹)	(⁹)	3,500	(⁹)	(⁹)	765,986	736,849	29,137

¹ The estimates shown here do not include temporary units, conversions, dormitory accommodations, trailers, or military barracks. They do include prefabricated housing units.

These estimates are based on building-permit records, which, beginning with 1945, have been adjusted for lapsed permits and for lag between permit issuance and start of construction. They are based also on reports of Federal construction contract awards and beginning in 1946 on field surveys in non-permit-issuing places. The data in this table refer to nonfarm dwelling units started, and not to urban dwelling units authorized, as shown in table F-3.

All of these estimates contain some error. For example, if the estimate of nonfarm starts is 50,000, the chances are about 19 out of 20 that an actual enumeration would produce a figure between 48,000 and 52,000.

² Private construction costs are based on permit valuation, adjusted for understatement of costs shown on permit applications. Public construction costs are based on contract values or estimated construction costs for individual projects.

³ Depression, low year.

⁴ Recovery peak year prior to wartime limitations.

⁵ Last full year under wartime control.

⁶ Housing peak year.

⁷ Less than 50 units.

⁸ Revised.

⁹ Not available.

¹⁰ Preliminary.

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