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Frances Perkins, *Secretary*

BUREAU OF LABOR STATISTICS

Isador Lubin, *Commissioner*

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Wages, Hours, and Working Conditions
in the Bread-Baking Industry, 1934

Prepared by

Division of Wages, Hours, and Working Conditions

JACOB PERLMAN, *Chief*



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P R E F A C E

This is the third of a series of surveys made by the Bureau of Labor Statistics in the bread-baking industry. The first one was conducted in the summer of 1923, but it was based on a very small coverage. A more comprehensive survey was undertaken in the fall of 1931. The present survey includes data for March and September 1933 and December 1934.

This survey was made at the request of and in cooperation with the National Recovery Administration. Its purpose was to furnish impartial and detailed information to show the effect of the President's Reemployment Agreement and the code upon wages, hours, and working conditions of labor in the bread-baking industry.

The Bureau wishes to express its appreciation to the various firms in the industry that have furnished the information upon which this bulletin is based. Acknowledgment is also made to the National Bakers' Council and the Bakery and Confectionery Workers' International Union of America for their cooperation in carrying out this survey.

The present bulletin includes a discussion of certain background material pertaining to this industry, a description of the scope and method of the survey, an analysis of the data relating to average hourly earnings, weekly hours, and weekly earnings, and a discussion of personnel policies and working conditions in the various plants visited. Appendix I gives a description of the technological processes in baking, together with a glossary of the occupations found, while appendix II presents the detailed figures upon which are based the text, tables, and charts.

The bulletin was prepared under the supervision of Jacob Perlman, Chief of the Division of Wages, Hours, and Working Conditions. Members of the Wages and Hours Division who contributed to the writing of the text and material in the bulletin are Paul H. Moncure, Florence M. Clark, Henry A. Bates, Frances M. Jones, and Philip L. Jones. Others who assisted in the compilation of the data are Donald L. Helm, Dorothy S. Smith, and J. T. O'Brien. The field work was done by J. P. Corkery, C. H. Doughty, F. G. Gregory, T. P. Henson, C. F. Jackson, W. F. Kirk, J. F. Laciskey, A. L. Maserick, W. B. Pettit, W. C. Quant, C. F. Rauth, W. C. Sims, F. I. Snyder, and G. E. Votava.

ISADOR LUBIN,
Commissioner of Labor Statistics.

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Wages, Hours, and Working Conditions in the Bread-Baking Industry, 1934

Summary and Conclusions

1. This survey was limited to the bread division of the baking industry. According to the census, this division reported in 1933 a total of 14,483 establishments, employing 14,149 salaried workers and 155,229 wage earners, who received about \$174,000,000 in salaries and wages and manufactured a product valued at \$770,000,000.

2. The purpose of the survey was to determine the influence of both the President's Reemployment Agreement and the code upon wages and hours of labor in the bread-baking industry. Accordingly, three pay-roll periods were covered: One in March 1933 before the advent of the President's Reemployment Agreement; one in September 1933 when the President's Reemployment Agreement was in effect; and, finally, one in December 1934 when the code had been in operation for about 6 months.

3. In selecting the plants in the sample, such factors as geographical distribution, size of city, size of establishment, unionization, degree of mechanization, type of distribution, and kind of product were taken into consideration. The 259 establishments covered in December 1934 employed 20,962 workers and were located in 66 cities in 37 States and the District of Columbia. Thus, although not very large, the coverage was adequate and representative of the bread-baking industry as a whole.

4. Average hourly earnings in the bread-baking industry rose from 45.5 cents in March 1933 to 50.7 cents in September 1933 and to 54.9 cents in December 1934. Thus, under the President's Reemployment Agreement, the average earnings per hour advanced 5.2 cents or 11.4 percent, and under the code they further increased by 4.2 cents or 8.3 percent.

5. The increase was not limited to any one class, as shown by the distribution of employees according to average hourly earnings. Between March and September 1933, there was a decline in the percentages of employees in practically all classes under 52.5 cents and an increase in the percentages in nearly all classes beginning with 52.5 cents. The shifting of workers toward higher-wage classes continued between September 1933 and December 1934.

6. The absolute and relative increases in average hourly earnings were shared by both males and females in both the northern and southern regions. For the period as a whole, the absolute gains were greater for males than for females and greater in the South than in the North.

7. As a result of the provisions of the President's Reemployment Agreement, there was a drop in the relative number earning less than the established minimum rates between March and September 1933. Thus, in the North the percentage receiving less than 40 cents decreased from 32.6 to 22.4 for males and from 79.1 to 75.4 for females. In the South, the proportion earning less than the 30-cent minimum decreased from 37.8 to 14.7 for males and from 82.6 to 52.2 for females.

8. In December 1934, 11.5 percent of the males and 64.3 percent of the females in the North earned less than 40 cents per hour (the code minimum for most northern workers) and 21.5 percent of the males and 71.8 percent of the females in the South received less than 35 cents (the code minimum for most southern workers). A large number of these workers belong to exempted occupations, which could be paid as low as 80 percent of the minimum, the remaining persons being either substandard workers or those paid in violation of the code.

9. Among males engaged in direct labor, a slight differential existed during each of the three periods between the average hourly earnings of semiskilled and unskilled workers, but there was a large differential between the average earnings per hour of skilled and unskilled workers. In the North, the spread between the last two groups was 18.5 cents in March 1933, 17.9 cents in September 1933, and 20.4 cents in December 1934; and, in the South, it was 13.6 cents in March 1933, 13.7 cents in September 1933, and 14.2 cents in December 1934. The average hourly earnings of driver-salesmen approximated more closely those of skilled rather than semiskilled males engaged in direct labor.

10. Each occupational class showed absolute and relative increases in average hourly earnings between March and September 1933 and between the latter period and December 1934. These increases, however, varied considerably.

11. On an occupational basis, the northern employees enjoyed a differential as compared with the workers in the South. Thus, as regards the broad occupational groupings covering male employees engaged in direct labor, the differentials for the three periods were respectively 16.5, 13.4, and 16.2 cents for skilled, 13.2, 10.0, and 11.3 cents for semiskilled, and 11.6, 9.2, and 10.0 cents for unskilled workers. Similar differentials favoring the North as compared with the South were found in the case of individual male occupations, these differentials having decreased between March and September 1933 and widened between September 1933 and December 1934. The regional differentials for identical female occupations followed much the same general course as that for male employees.

12. Females doing approximately the same work as males received less per hour than males. Thus, northern male cake wrappers and packers earned a substantially higher average per hour than females, this differential amounting to 12.1 cents in March 1933, 11.1 cents in September 1933, and to 10.1 cents in December 1934.

13. On the whole, the average earnings per hour of bakery workers varied directly with the size of city. In the North, there was a clear-cut break between the cities of 250,000 and over and those of less than 250,000, whereas in the South the break occurred between cities of 50,000 and over and those of less than 50,000.

14. Taking male employees engaged in direct labor in the North, the differential in favor of union as compared with nonunion shops was limited to skilled and semiskilled workers, as unskilled workers are seldom organized. As regards skilled workers, the differential was 26.0 cents in March 1933, 19.2 cents in September 1933, and 23.9 cents in December 1934. The differential in favor of semiskilled workers was 6.4 cents in March 1933, 3.3 cents in September 1933, and 6.0 cents in December 1934. Furthermore, in nonunion shops there was practically no difference between the average hourly earnings of unskilled and semiskilled workers, whereas in union shops semiskilled employees enjoyed a differential of 6.1 cents in March 1933, 4.1 cents in September 1933, and 7.5 cents in December 1934.

15. In general, the greater the degree of mechanization in bakeries, the higher the average hourly earnings. Thus, in the North male workers in mechanical bakeries earned more per hour (3.5 cents in March, 8.3 cents in September 1933, and 10.4 cents in December 1934) than male workers in handicraft shops. The same was true, although to a lesser extent, of southern male workers in mechanical shops, whose earnings per hour exceeded those of male workers in handicraft shops by 0.6 cent in March 1933, 6.0 cents in September 1933, and 4.7 cents in December 1934.

16. On the whole, average earnings per hour were highest in multi-State, multiple-unit retail, and chain-store bakeries. Likewise, the earnings in local wholesale bakeries tended to exceed those in retail and house-to-house establishments.

17. In the North, males employed in bread specialty shops earned much more per hour than males in either bread or cake shops. Except in the instance of northern male workers in March and September 1933, workers in bread shops earned somewhat more than those in cake shops.

18. Between the fall of 1931 and December 1934, the average hourly earnings advanced 1.4 cents or 2.6 percent. During this period, the percentage of employees earning less than 30 cents declined from 10.4 to 2.9, the percentage earning 30 and under 50 cents rose from 33.7 to 45.5, the percentage receiving 50 and under 65 cents declined from 31.2 to 25.2, and the percentage earning 65 cents and over increased from 24.7 to 26.4.

19. The average weekly hours of all workers in the bread-baking industry declined from 50.2 in March 1933 to 45.9 in September 1933 and to 43.5 in December 1934. The total reduction over the entire period amounted to 6.7 hours or 13.3 percent.

20. A better idea of the influence of both the President's Reemployment Agreement and the code upon weekly hours may be had if the exempted occupation of driver-salesman is excluded. Thus, the average for all workers exclusive of driver-salesman dropped from 47.4 in March 1933 to 42.2 in September 1933 and to 39.3 in December 1934. At the same time, the spread in hours worked which existed between the various sex-region groups was reduced. The range between the weekly hours of males in the South and females in the North, the groups which had respectively the highest and lowest averages in all three periods, was reduced from 7.7 hours in March 1933 to 3.6 hours in September 1933 and to 2.5 hours in December 1934.

21. As regards the distribution of employees, exclusive of driver-salesmen, according to weekly hours, there was a sharp increase in the percentage of the total number working 40 and under 48 hours in each sex-region group between March and September 1933. The concentration was especially marked in the 44- and under 48-hour interval. Furthermore, the above concentrations were more pronounced in the case of male employees as compared with female workers and in the South as against the North.

22. Whereas the trend between March and September 1933 was toward a workweek of 44 and under 48 hours, the trend between September 1933 and December 1934 as a result of the code was toward a workweek of 40 and under 44 hours. The increase in the percentages of employees having a workweek of that length was from 12.9 to 51.7 for males and from 26.9 to 44.8 for females in the North and from 13.2 to 60.7 for males and from 26.4 to 51.2 for females in the South.

23. Both the President's Reemployment Agreement and the code tended to reduce the differential in hours which had existed between skilled, semiskilled, and unskilled male workers engaged in direct labor in both regions. As a result of certain code exemptions, however, the differential in favor of indirect male workers as compared with skilled direct male workers increased between March 1933 and December 1934 in both regions.

24. Among the broad occupational groupings engaged in direct labor, not over 2.1 percent of the males and not over 0.4 percent of the females worked more than 48 hours, the upper limit for handicraft shops. In fact, the great majority of these employees had a workweek of 40 hours or less, the upper limit for mechanical bakeries. Work of more than 48 hours a week was found to an appreciable extent only in the occupations classified as other indirect male labor, which grouping included occupations exempted from the provisions of the code.

25. The exempted occupation of driver-salesman shows the smallest decline in average weekly hours between March 1933 and December 1934, a decrease of only 2.0 percent. In each period, over 90 percent of these workers averaged over 48 hours per week.

26. The tendency between March 1933 and December 1934 was toward a leveling of the workweek of the various occupations.

27. Although in several cases the occupational averages for male workers in the South were higher than those for males in the North, this was not true of all occupations. In the case of females, there was little difference in the regional averages. In occupations requiring approximately the same skill, males worked on the average longer hours than females.

28. The leveling effect of both the President's Reemployment Agreement and the code largely eliminated the longer hours which in March 1933 existed in cities of less than 250,000.

29. In the North, male workers engaged in direct labor in union shops had a shorter week than those in nonunion shops. This advantage was most pronounced in March 1933 before either the President's Reemployment Agreement or the code were in effect.

30. During each of the three periods, the northern male employees worked the longest hours in handicraft, the next longest in semihandicraft, and the shortest in mechanical shops, but under both the President's Reemployment Agreement and the code the spread in the aver-

age weekly hours between these types of shops was increased considerably. In case of males in the South, mechanical bakeries worked longer hours than handicraft bakeries in March 1933, but the President's Reemployment Agreement reversed this and established a differential in favor of handicraft as compared with mechanical shops. The code further increased this differential. Semihandicraft establishments in the South had the longest hours in March and September 1933 and the same hours as mechanical bakeries in December 1934.

31. From the standpoint of type of distribution, employees in the smaller establishments, such as retail and house-to-house or local wholesale shops, worked on the whole longer hours per week than employees in the larger multi-State, multiple-unit retail, and chain-store bakeries.

32. In each of the three periods and for each sex-region group, the average weekly hours differed but little between bread shops and cake, sweet goods, and pie shops. The large differential in favor of bread shops as compared with bread specialty shops was reduced from 11.7 hours in March 1933 to 5.6 hours in September 1933 and to 6.1 hours in December 1934.

33. Average weekly hours dropped from 53.2 in the fall of 1931 to 43.5 in December 1934, a decline of 9.7 hours or 18.2 percent. The decrease was greater for males than for females.

34. Average earnings per week in the bread-baking industry advanced from \$22.84 in March 1933 to \$23.24 in September 1933 and to \$23.86 in December 1934. These gains were the result of increases in average hourly earnings sufficiently great to more than offset the decreases in average weekly hours. Taking the entire period, the weekly earnings increased more in the South (\$1.59 or 8.8 percent) than in the North (\$1.01 or 4.3 percent), and in each region the gains were relatively greater for females than for males.

35. Although not very large, the changes in the distribution of employees according to weekly earnings in the entire industry between March and September 1933 were significant. Thus, a decrease in the percentage earning less than \$12 (from 12.7 to 7.7) was accompanied by an increase in the percentage earning \$12 and under \$20 (from 24.8 to 33.6). Likewise, a decline in the relative number receiving \$20 and under \$32 (from 45.6 to 38.9) was followed by an increase in the relative number earning \$32 and over (from 16.9 to 19.8). With the exception of a slight increase in the percentage earning \$36 and over, the changes between September 1933 and December 1934 were negligible.

36. Taking the distribution of employees according to weekly earnings by sex-region groups, there was a shift of workers from the immediately adjoining classes on both sides to the \$12 and under \$20 class for males in the North and to the \$12 and under \$16 class for females in the North and for both males and females in the South. This was due to the fact that, on the one hand, all employees outside of driver-salesmen were more or less uniformly affected by the reduction of weekly hours, and, on the other hand, the increases in average earnings per hour were greater on the whole for the lower-paid rather than for the higher-paid workers, thus tending to increase the weekly earnings of the lower-paid employees and to decrease the weekly earnings of the higher-paid employees. There was also an increase in the relative number of males in the upper wage-brackets in both the

North and the South, which may be accounted for by the inclusion of driver-salesmen. The increase in the average hourly earnings of driver-salesmen was not accompanied by an appreciable decrease in average weekly hours, so that these employees were shifted to still higher wage classes. There is a striking similarity in the percentage of workers in each of the wage classes for each sex-region group between September 1933 and December 1934.

37. In both the North and South, although the average weekly earnings of semiskilled and unskilled male workers engaged in direct labor differed but little during each of the three periods, there existed a substantial differential between each of these two groups and skilled workers. There was also a differential in the average weekly earnings in favor of driver-salesmen as compared with skilled male workers engaged in direct labor. This differential became greater in both September 1933 and December 1934, which was due to the fact that the former group was exempted from the hour regulations under the code, whereas the latter group was subject to these regulations.

38. For males in the North, the changes in the average weekly earnings between March 1933 and December 1934 ranged from a decrease of 86 cents for dividers or scalers to an increase of \$1.16 for pan greasers among the 14 individual occupations in the direct-labor group, and in the indirect-labor group they ranged from a decrease of 70 cents for office clerks to an increase of \$5.49 for driver-salesmen. For the six individual occupations shown for females in the North, the gains ranged from 47 cents for stenographers, typists, telephone operators, etc., to \$2.03 for cake finishers. In the South, five of the six individual occupations presented for males engaged in direct labor showed increases between March 1933 and December 1934.

39. In all three periods, the occupational average weekly earnings were higher in the North than in the South. The largest regional differential among the broad occupational groupings was for "other" male workers in the indirect-labor group (\$6.33 in March 1933, \$5.39 in September 1933, and \$5.58 in December 1934). The smallest North-South differential was found among unskilled female employees classified as direct labor (\$2.86 in March 1933, 67 cents in September 1933, and \$1.49 in December 1934).

40. A comparison of the weekly earnings of unskilled workers classified as direct labor reveals that for comparable work male employees averaged more than female employees.

41. On the whole, the average weekly earnings were higher in the larger cities in both the North and the South.

42. In all three periods, the average weekly earnings of skilled and semiskilled male workers engaged in direct labor were greater in union shops than in nonunion shops. The opposite was true of unskilled workers. The differential between unskilled and skilled workers was virtually twice as large in union as in nonunion shops.

43. In both regions, the average weekly earnings were generally greatest in the most highly mechanized shops.

44. For males in both regions, the weekly earnings were highest in multi-State, multiple-unit retail, and chain-store bakeries, but for females in the North they were highest in retail and house-to-house bakeries, and for females in the South they were highest in local wholesale shops.

45. Among the males in the North, bread specialty shops not only had the highest average earnings per hour, but they also had the highest average weekly earnings. In all four sex-region groups, the averages for bread shops exceeded those for cake shops.

46. Average weekly earnings decreased from \$28.54 in the fall of 1931 to \$23.86 in December 1934, a drop of \$4.29 or 14.5 percent. During this interval, the weekly earnings of females advanced from \$12.70 to \$14.23, while those of males declined from \$29.53 to \$25.24.

47. Only a few of the larger bakeries had special employment agencies. In small shops the owner did the hiring, and in the larger establishments the superintendent or the general manager did the hiring or delegated this authority to some subordinate.

48. Previous experience, especially previous satisfactory service in the plant of the employer, outweighs all other considerations in hiring an applicant.

49. Due to the strenuous nature of the work in bread bakeries, there is a tendency to establish definite age limits in hiring. Generally speaking, the hiring age for bake-shop employees ranged from 18 to 45 and that for driver-salesmen from 21 to 35 years.

50. Both bakers and driver-salesmen must be trained. In only 7.0 percent of the bakeries was the training of bakers formal, other bakeries starting new men as helpers and advancing them to machine or bench hands in accordance with ability or seniority or both and not as a rule after a definite period of training. The training of driver-salesmen often consists only in acquainting them with the route, although the larger plants usually require more extensive training in sales methods and other phases of the business.

51. During seasonal or other slack periods, it is customary for workers in a bakery to share available work. Considerable effort is made to keep the existing force intact, thereby minimizing the extent and cost of labor turn-over. When lay-offs are necessary, the major factors considered in retaining workers are ability, merit, and seniority.

52. Bakery workers are generally paid on a time basis. Driver-salesmen were the chief exception to this rule, as they are usually paid wholly or in part by commissions.

53. Code regulation of maximum hours of work coupled with punitive overtime rates tended both to shorten and to regularize the work hours of bakery employees.

54. A common practice in this industry is to supply, free of charge or at a discount, bakery products for use by families of employees.

55. Among the more common expenses incurred by driver-salesmen are the cost of operators' licenses and uniforms. In some establishments, the driver-salesmen also may have to furnish bond or assume responsibility for any credit they extend to customers.

56. The starting and quitting hours of individual bake-shop employees are very irregular, due to the fact that these hours are determined by the order of manufacture and that very often processes overlap. Daily hours vary with week ends, holidays, and midweek lulls. The industry has, however, made an attempt to level out weekly peaks and lows.

57. Night work is still common in the industry, although a struggle against it has been waged for the past 100 years. A typical sample of 93 plants showed that, of the total operating hours in these plants,

857 hours were worked during the night (6 p. m. to 6 a. m.) and 812 hours represented daytime operation.

58. Approximately three-fourths of the bakeries provided for rest during lunch for at least a part of their employees although only two-thirds of the shops extended this privilege to bake-shop workers. One-half hour was the most common lunch period.

59. The six holidays generally observed in the industry are Christmas, Thanksgiving, Independence Day, New Year's Day, Labor Day, and Decoration Day. Most salaried employees and about one-half of the regular bake-shop employees were paid for holidays.

60. Vacations with pay were provided for all employees in 12 percent of the plants reporting and for part of the employees in an additional 36 percent of the plants.

61. Although welfare activities are not very common, they are found among the larger bakeries. Such activities include safety programs, company insurance, social and recreational activities, and mutual benefit associations.

Chapter I.—The Bread-Baking Industry

Definition of Industry

The baking industry makes bread, rolls, biscuit, crackers, cookies, cakes, pies, doughnuts, pastries, pretzels, and a variety of other products, of which a single bakery may produce one or several items. The industry, however, is classified by the Census of Manufactures into two branches, namely, "Biscuit and crackers" and "Bakery products other than biscuit and crackers."

The biscuit and crackers division of the industry is composed chiefly of large-scale establishments which manufacture biscuit, crackers, machine-made cookies, pretzels, etc. These products are neither bulky nor perishable, so that they may be distributed geographically over a wide area. In 1933, the Census of Manufactures reported 347 establishments and nearly 30,000 employees in this branch of the industry. The problems here differ essentially from those of bread baking, and, in the codes under the National Recovery Administration, biscuit and crackers were separated from the bread division. This survey, therefore, excluded biscuit and cracker plants from its scope.

The present survey covers the largest division of the industry, which includes the baking of bread, cakes, pies, etc. In 1933, the Census of Manufactures reported for this branch 14,483 establishments employing 14,149¹ salaried workers and 155,229 wage earners, who received about \$174,000,000 in salaries and wages and manufactured a product valued at \$770,000,000. This industry is one of the principal ones in the country, having more establishments than any other manufacturing industry.²

The bread division also differs from that of biscuit and crackers in other respects. It not only embraces large mechanical plants run on a factory basis, but it also includes the semihandicraft group of partially mechanized bakeries, as well as the numerous small handicraft shops that employ only a few people.³ As the products of this division are designed for consumption within a few days, they must be distributed within a relatively local area. Sales of bakery goods are made either wholesale or retail or by both methods. The retail baker may sell his products from his own store, located usually in front of his bake shop, or through stores situated at various points in his city, or through chain grocery organizations that may control his output, or by the use of the house-to-house sales-route method.⁴

¹ Exclusive of employees in central administrative offices.

² The above figures do not include establishments doing a business of less than \$5,000 per annum.

In his letter of transmittal to the President, in connection with the Code of Fair Competition for the Baking Industry, Administrator Hugh S. Johnson said: "In 1929, a conservative estimate of establishments shows a total of 30,000 bakeries, which had dropped to 25,000 in 1933."

The applications for code Blue Eagles would seem to be the most reliable index of the number of bakeries, but the figures are available at the present writing only as a rough estimate, there being several important variables present that may later be corrected. The final compilation will probably be well over 30,000.

³ See p. 22.

⁴ See pp. 23 and 24.

Historical Development of Baking Industry

Man baked his bread before the dawn of history. Fragments of unfermented cakes or biscuits discovered in the Neolithic lake dwellings of Switzerland are among evidences left that our ancestors of the Stone Age gathered grain, fashioned cakes, and engaged in what has come to be known as home baking. Before the time of Christ, Egyptian hieroglyphs designated the occupation of baker. Rome had 300 bake shops in the days of Emperor Augustus. When Pompeii was excavated, remains of shops were unearthed with loaves of bread still in the ovens. During the Middle Ages, the possession of an oven was an exclusive right of the feudal lord. He compelled all people in his jurisdiction to use his ovens and exacted a fee in return. In medieval cities the baking trade was among the first crafts to develop and bakers played a prominent part in the city life.⁵

The art of baking has held its place among the essential industries of mankind. By the late eighteenth century, there had developed in Europe a well-established market for commercial bakery products, with a large portion of the people accustomed to purchase their bakery goods. In some countries, notably France, handicraft shops were the rule and they have persisted almost exclusively to the present day. In other countries, large-scale bakeries, some mechanized, have become important. One mechanized plant in Moscow is equipped to supply one-third of the city's population,⁶ but the greater part of bakery goods in Europe is still produced by craftsmen catering to particular demands.

The development of baking in the United States has differed somewhat from that in Europe. The pioneer household did its own baking, and this practice persisted in industrialized America until the turn of the twentieth century. An investigation among wage-earners' families by the Bureau of Labor Statistics in 1901 indicated that about two-thirds of the bread was still baked at home.⁷ Commercial bake shops were, of course, established much earlier, but they served a very limited number of consumers. The proprietor of the bake shop was the baker, and the employees were usually drawn from the members of his immediate family. He baked his products at night and sold them in a small store in front of the shop. As early as 1850, however, baking had entered the wholesale field.

The Census of Manufactures offers material for studying the development of the bakery industry in this country. The earliest information available is for 1849, when there were approximately 2,000 establishments employing 6,700 wage earners. The records indicate that the industry grew rapidly. By 1889 there were more than 10,000 shops with nearly 39,000 wage earners. At the outbreak of the World War, almost 26,000 bakeries were reported and 124,000 workers were employed by the industry. These figures cover the industry as a whole, and show the rapid growth in the number of establishments, as well as in the number of employees.

Since 1914 separate figures are available for the bread division. These figures are given in table 1. The number of employees in-

⁵ For a history of bread baking, see Braun, Emil: *The Baker's Book*. New York, 1901, pp. 5-31.

⁶ Stone, Ursula B., *Baking Industry, Europe*, in *Encyclopaedia of the Social Sciences*, vol. 6, p. 305.

⁷ The investigation covered the consumption of various articles of food among 2,557 families. See *Eighth Annual Report of the Commissioner of Labor*, 1903, p. 82. This ratio of "two-thirds" is based on a comparison between the average number of loaves of bread and of pounds of flour and meal purchased per family. See also Alsberg, Carl L.: *Combination in the American Bread-Baking Industry*. Stanford University, California, 1928, pp. 27-28.

creased steadily until the depression of the thirties. The data also clearly indicate the advent of the large-scale bakery. The largest number of bakeries was reported in 1914, for there was a decline in the number of bakeries with a product valued at \$500 or more from 1914 to 1919. From 1919 to 1925, there was a decrease in the number with products valued at \$5,000 or more.⁸ This is undoubtedly due to the development of larger establishments at the expense of the smaller ones. During the depression years following 1929, the number of establishments in the bread-baking industry has declined nearly 30 percent, and the number of wage earners decreased about 7 percent.

TABLE 1.—*Growth of bread-baking industry in United States, 1914-33*

[Data taken from Census of Manufactures]

Year	Number of establishments	Number of wage earners (average for year)	Wages	Value of products
Bakeries with a product valued at \$500 or more:				
1914.....	25,797	99,016	\$66,072,000	\$402,409,000
1919.....	24,919	107,251	132,171,000	947,876,000
Bakeries with a product valued at \$5,000 or more:				
1921.....	20,024	117,026	169,829,000	902,463,000
1923.....	18,572	127,496	183,221,000	911,118,000
1925.....	17,490	128,034	187,660,000	1,023,668,000
1927.....	17,909	139,013	202,197,000	1,145,710,000
1929.....	20,410	166,970	240,354,000	1,251,621,000
1931.....	17,364	154,764	212,353,000	979,904,000
1933.....	14,483	155,229	174,423,000	770,332,000

Two important forces have been operating and may be expected to continue to affect the development of the baking industry. Of primary importance in the past has been the increasing proportion of bakers' bread used as compared with bread baked in the home. In 1901, about two-thirds of the bread used by wage-earners' families was made at home, but it is estimated that in 1918-19 only one-third was baked at home and two-thirds was purchased.⁹ The same proportions probably apply to all inhabitants of large cities,¹⁰ although in the smaller towns the percentage of bread baked at home is much larger. On the other hand, home baking has persisted in the rural sections of the country. In 1922-23, it was estimated that at least 94 percent of the farm families of the United States baked their own bread.¹¹

It was the decreasing use of home-made bread in the cities, together with the increase in urban population, which gave the commercial

⁸ It is difficult to trace in detail the movements in recent years because of the absence of data on bakeries with a product valued at less than \$5,000. In the first place, changes in the price of flour play an important role in determining whether or not a baker is eligible to report in one year and ineligible in another year, thus making it difficult to interpret the change in the number of bakeries from 1927 to 1933. In the second place, the discrepancy between 14,483 establishments reported by the Census of Manufactures in 1933 and the estimated 30,000 Blue Eagles issued to bakeries indicates the importance of these small establishments. It is probable that the number of bakeries has decreased more than is indicated by the table through the elimination of small units but that the growth in the number of wage earners has been less than is shown. The growth of employment in large scale units is accounted for, but the possible decrease of employment in small units is not shown.

⁹ Based on a study of the cost of living made by the U. S. Bureau of Labor Statistics, which covered 11,900 families. The average quantities of bread and flour consumed per family are given on p. 118 of Bul. No. 357: Cost of Living in the United States. The ratio of "one-third" was arrived at the same way as in 1901. See also Alsberg, *Combination in the American Bread-Baking Industry*, p. 28. It must be remembered, however, when comparing the two periods that the size of the family declined somewhat.

¹⁰ This was indicated by a study in 36 large cities, which was made by the U. S. Food Administration in 1918. See Alsberg, *Combination in the American Bread-Baking Industry*, p. 28.

¹¹ Based on a survey made by the *Farm Journal of Philadelphia*. See Alsberg, *Combination in the American Bread-Baking Industry*, p. 29.

bakeries a considerable opportunity for expansion during the first part of the twentieth century. Whether the city market is susceptible to further marked expansion is questionable. It must be noted, moreover, that the rural market has proved difficult to develop.

In recent years, however, several factors have tended to restrict the consumption of bread and other starchy foods. The decline of immigration after the adoption of quota restrictions was an important influence, since people just arrived from Europe consume comparatively larger amounts of bread than do those born in this country. Of more importance perhaps is the change in our own food habits, with greater emphasis on the food value of fruits and vegetables. Food requirements have also changed, tending toward lighter diet, as a result of shortened hours of labor, the shift of population from farms to cities, and the development of labor-saving devices.

Characteristics of Bread-Baking Industry

Bread making is not a localized industry, and the employees in it always work in a broad labor market that offers several types of employment. So-called "company towns", with no alternative opportunities for employment, offer no problem to this industry. Bread is manufactured in every city and town and many of the small villages in the country. Because bread becomes stale quickly, "fresh" bread must be sold the same day it is baked. Not only are bakeries located throughout the country, but their distribution corresponds closely to that of population, with the greatest concentration in the larger cities.

Along with the dispersion of the industry, bread baking also has a smaller average number of employees per establishment than any other manufacturing industry. According to the Census of Manufactures, the average was 10.7 wage earners in 1933, which contrasts with 43 reported for all manufacturing industries. The average number of wage earners per plant, however, has risen steadily from 3.8 in 1914. This has been due mainly to the development of the larger units in the industry.

The distribution of establishments by size is available in 1929 only for the industry as a whole, i. e., including also biscuit and crackers. It will be seen from table 2 that 19,183 out of a total of 20,785 establishments reporting to the Census of Manufactures had 20 or less wage earners. In addition, the number of code Blue Eagles issued to industry registrants suggests that there may be another 10,000 or more units operated either by a proprietor alone or with perhaps a single wage earner.

TABLE 2.—*Number of establishments, classified by number of wage earners, in baking industry as a whole, 1929*¹

Number of wage earners	Number of establishments	Number of wage earners	Number of establishments
None.....	662	251-500.....	44
1-5.....	14,206	501-1,000.....	12
6-20.....	4,315	Over 1,000.....	3
21-50.....	933		
51-100.....	364	Total.....	20,785
101-250.....	246		

¹ Abstract of the Fifteenth Census of the United States, p. 794. Figures are limited to establishments with a product valued at \$5,000 or more.

Another distinguishing characteristic is that the bread-baking industry has been affected during recent years by rapid progress in the displacement of hand processes by machine operations, which is undermining the demand for the high degree of skill for which the old bakery worker was known. According to the Census of Manufactures, the percentage of bakeries¹² reporting the use of power was 5.3 in 1889, 9.8 in 1899, 25.9 in 1909, and 68.3 in 1919, thus indicating considerable acceleration in mechanization.¹³ The latter was hastened by the introduction of electricity,¹⁴ which made it possible to develop the small-scale use of power-driven machinery. The spread of mechanization, or partial mechanization, may also be judged by the following census averages of horsepower per plant¹⁵ (total reported horsepower divided by total reporting bakeries), which show the uninterrupted progress since 1899:

1899—1.5 horsepower per bakery with products valued at \$500 or more.
 1904—2.0 horsepower per bakery with products valued at \$500 or more.
 1909—2.7 horsepower per bakery with products valued at \$500 or more.
 1914—4.1 horsepower per bakery with products valued at \$500 or more.
 1919—6.6 horsepower per bakery with products valued at \$500 or more.
 1921—No figures available.
 1923¹⁶—10.3 horsepower per bakery with products valued at \$5,000 or more.
 1925—12.9 horsepower per bakery with products valued at \$5,000 or more.
 1927—15.7 horsepower per bakery with products valued at \$5,000 or more.
 1929—17.1 horsepower per bakery with products valued at \$5,000 or more.

With the development of large plants there also arose the movement toward combination in the industry.¹⁷ Even before 1900, certain companies began to operate groups of bakeries, sometimes located in several cities. These companies soon became the nuclei around which the large mergers and consolidations were built. The movement began about 1907, when seven baking plants in St. Louis united to form the American Bakery Co. Similar mergers were organized in quick succession in other important cities, and soon afterward they began to extend to widely separated communities. These consolidations were achieved either among the plant owners themselves or through the instrumentality of interested banks.

The early combinations arose out of price wars, which threatened the existence of many producers. Although the curbing of competition was one of the prime factors, there were other considerations impelling the plants to consolidate. It was assumed that substantial economies of operation might be effected, not only by reducing production and distribution costs but also by the employment of technical staffs, which small-scale bakeries could not afford. Likewise, the large organization had a definite bargaining advantage in the purchase of raw materials and the negotiation of credit.

¹² Including biscuit and crackers.

¹³ The 1929 percentage, 94.9, is not comparable with that for earlier years, since in 1929 establishments with a product valued at \$500 to \$5,000 were not covered.

¹⁴ Kyrk, Hazel, and Davis, Joseph S.: *The American Baking Industry, 1849-1923*, as Shown in the Census Reports. Stanford University, California, 1925, pp. 38-39.

¹⁵ Census of Manufactures, 1929, vol. II, p. 52.

¹⁶ The data after 1919 are not strictly comparable with the data for earlier years, due to a change in census method. Beginning with the census of 1921, only plants doing a business of \$5,000 or over were covered instead of \$500 and over, as had previously been included.

¹⁷ For a full discussion of this subject, see the following: Alsberg, *Combination in the American Bread-Baking Industry*, pp. 8-22 and 125-148; Federal Trade Commission, *Competition and Profits in Bread and Flour* (1928).

The next phase in the movement toward combination in the industry was that of the holding company. This phase began in 1922 with the formation of the United Bakeries Corporation. By 1925, a large number of the wholesale bakeries had been united in one or another of three very large holding corporations, namely, the Continental,¹⁸ the Purity, and the General, not to mention several smaller combinations. Following this, the Ward Food Products Corporation was organized to control the Ward Baking Corporation, the General Baking Corporation, and the Continental Baking Corporation, but this corporation was held by the courts to be in violation of the Federal antitrust laws and was dissolved.

Another factor to be considered is the competitive situation in the industry. The development of consolidations tended to stabilize prices, but the entrance of chain grocery stores into the bread-baking industry has been an important influence in recent years. These stores have frequently used bread as a "leader"; that is, selling it below the standard price prevailing in the community. Unable to use their position as quantity purchasers, in order to secure price reductions from some of the wholesale bakers with whom they had been dealing, which concessions would have put them at an advantage in competition with other retailers, many of these larger chains established their own bakeries.

Although the labor cost is only a relatively small part of the total price of a loaf of bread, amounting only to a fraction of a cent per pound, a reduction in the price of bread is often used as an argument for reducing wages. The average cost of producing a pound of bread in wholesale bakeries in 1923-25 was 6.769 cents, of which only 0.786 cent was for labor. The components comprising the total cost were: Flour, 2.312 cents; other ingredients, 0.903 cent; manufacturing (including labor), 1.709 cents; selling and delivery, 1.617 cents; and general and administrative, 0.22 cent.¹⁹

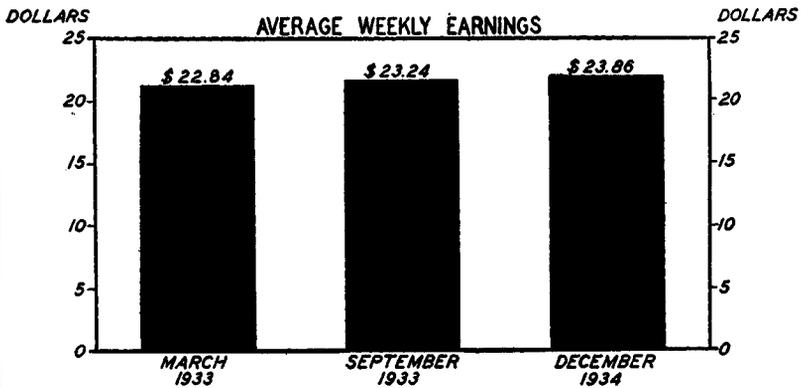
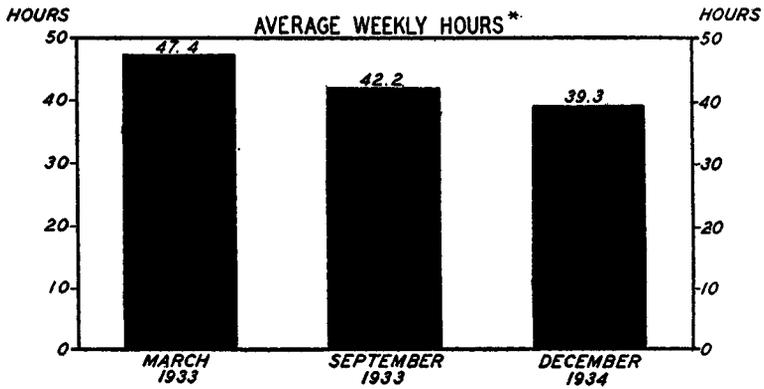
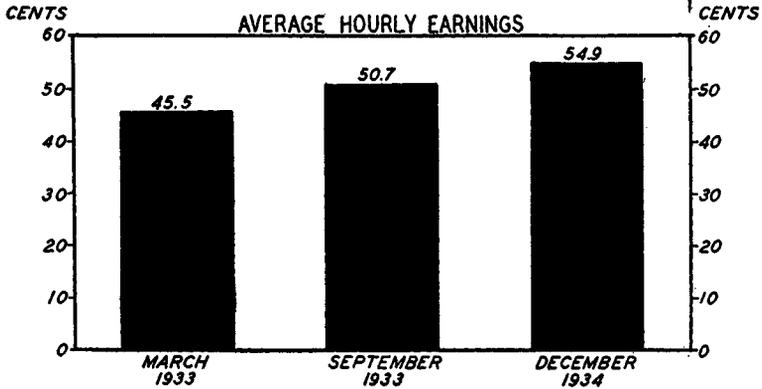
Finally, in view of the stability in the demand for bread, the industry has been able to furnish relatively steady employment to its workers. This is illustrated by chart 2, which contrasts the fluctuations in employment and pay rolls in the baking industry as a whole (including biscuit and crackers) with those in all manufacturing industries. The monthly index numbers of employment and pay rolls for the baking industry as a whole are given in table 3.

¹⁸ The United was absorbed by the Continental.

¹⁹ Federal Trade Commission, *Competition and Profits in Bread and Flour*, pp. 291 and 320.

CHART I.

AVERAGE HOURLY EARNINGS, AVERAGE WEEKLY HOURS, AND AVERAGE WEEKLY EARNINGS OF EMPLOYEES IN BREAD INDUSTRY IN COUNTRY AS A WHOLE MARCH 1933, SEPTEMBER 1933, AND DECEMBER 1934



U. S. BUREAU OF LABOR STATISTICS

* DOES NOT INCLUDE DRIVER-SALESMEN

TABLE 3.—Index numbers of employment and pay rolls in the baking industry as a whole, 1919-35¹

[1923-25=100]

A. EMPLOYMENT

Month	1919	1920	1921	1922	1923	1924	1925	1926	1927	1928	1929	1930	1931	1932	1933	1934	1935
Jan.....	84.4	92.3	88.7	89.4	91.0	98.1	97.7	96.8	100.9	105.2	115.3	123.1	113.1	104.3	95.8	106.4	106.7
Feb.....	84.3	92.4	87.4	89.7	95.3	102.0	99.0	96.9	102.6	106.1	118.2	123.1	113.1	103.1	95.4	108.4	111.3
Mar.....	85.7	94.8	89.2	92.2	98.3	102.1	97.7	99.5	103.8	107.7	120.1	122.9	113.0	103.5	94.6	110.3	110.9
Apr.....	85.7	94.1	88.8	88.4	96.8	99.9	96.4	98.8	104.1	108.0	119.9	122.2	112.4	102.7	95.7	111.2	111.8
May.....	85.1	94.4	89.6	88.9	97.4	100.1	96.7	100.1	103.7	110.8	122.2	123.0	114.2	102.6	96.8	113.2	112.7
June.....	87.3	96.4	93.6	91.7	101.4	102.6	99.5	103.7	108.4	113.1	125.0	124.2	114.3	102.0	98.1	114.6	114.2
July.....	89.0	100.0	97.0	97.8	105.6	102.0	99.1	103.7	106.8	113.0	125.6	123.1	115.2	101.0	99.5	116.3	111.5
Aug.....	88.7	100.9	97.0	94.5	104.2	100.5	97.4	101.9	106.2	112.6	125.0	120.5	113.8	99.9	102.7	115.8	111.7
Sept.....	87.6	97.2	95.2	92.8	103.6	101.5	98.8	103.7	109.0	116.9	128.2	121.6	113.2	99.5	108.9	115.7	114.6
Oct.....	88.2	96.4	96.3	93.8	105.6	102.2	103.3	105.8	110.1	118.9	129.8	120.4	111.9	100.1	110.1	116.1	114.6
Nov.....	90.4	95.9	95.1	95.2	101.2	101.6	100.5	103.6	108.4	117.7	127.7	118.4	109.1	98.3	109.1	115.4	113.6
Dec.....	91.4	93.4	91.4	92.7	100.4	100.0	98.9	102.1	106.9	117.3	126.1	116.7	107.4	97.7	107.7	115.4	112.4
Aver....	87.3	95.7	92.4	92.3	100.1	101.1	98.8	101.4	105.9	112.2	123.6	121.5	112.6	101.2	101.2	113.2	112.2

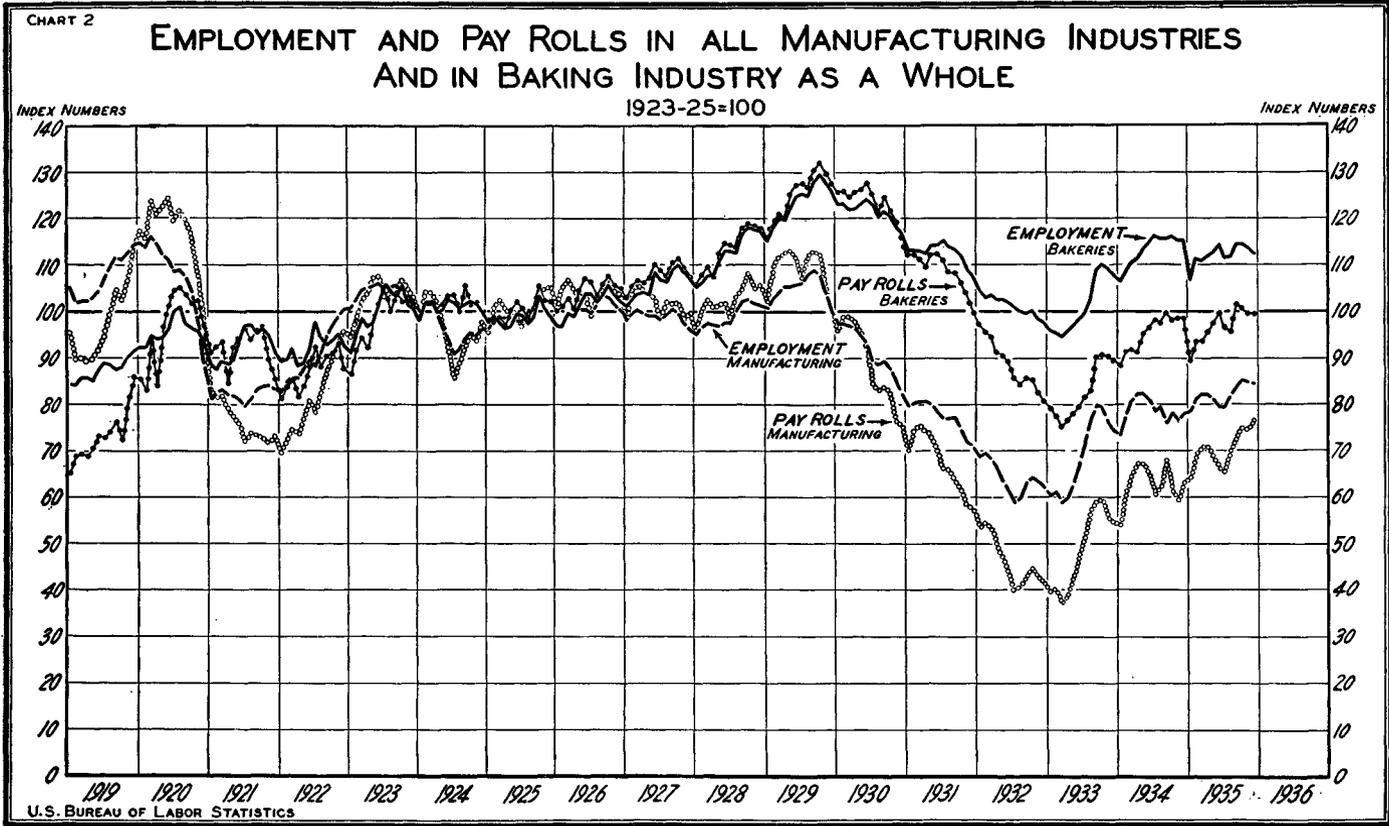
B. PAY ROLLS

Month	1919	1920	1921	1922	1923	1924	1925	1926	1927	1928	1929	1930	1931	1932	1933	1934	1935
Jan.....	65.2	85.4	91.0	81.2	86.5	98.7	98.0	100.0	102.9	105.9	115.4	125.8	112.3	97.1	79.2	88.5	89.6
Feb.....	68.9	83.2	92.3	83.9	91.6	102.0	97.7	100.9	105.8	107.9	119.2	126.1	112.2	95.4	77.6	91.4	93.7
Mar.....	69.4	94.1	93.4	86.3	94.4	102.0	98.7	102.8	106.6	109.5	120.9	124.7	111.3	94.6	75.3	91.8	93.7
Apr.....	68.9	84.1	84.6	81.7	92.2	100.8	97.0	100.5	106.1	107.5	120.3	125.7	109.5	91.2	76.8	91.3	95.5
May.....	70.6	96.7	92.3	84.2	97.4	101.4	100.1	104.5	107.3	112.5	125.3	126.2	112.3	90.5	78.1	95.3	97.3
June.....	73.4	101.5	94.2	88.1	101.5	103.4	102.0	107.1	110.3	114.7	127.4	127.6	112.3	89.2	79.6	96.5	99.6
July.....	73.0	104.4	96.2	92.3	104.4	103.3	100.5	106.3	108.8	114.4	127.6	125.3	111.0	86.0	81.8	98.2	96.5
Aug.....	74.4	104.9	93.8	83.1	100.0	99.9	98.7	103.5	107.6	113.7	126.9	121.7	108.4	84.5	83.1	97.8	95.7
Sept.....	76.5	103.5	95.9	90.4	103.8	105.5	100.6	106.0	110.4	117.9	130.6	124.6	108.3	85.8	90.2	99.6	101.6
Oct.....	72.5	101.7	96.6	91.0	101.9	101.4	105.5	107.6	111.2	119.0	132.1	121.7	106.3	85.6	90.6	98.3	100.8
Nov.....	80.7	102.4	89.8	93.1	102.1	101.9	102.3	105.5	109.6	118.5	129.8	119.3	103.3	82.7	90.4	98.6	99.7
Dec.....	86.1	96.8	85.5	87.8	100.6	100.0	102.1	104.9	107.3	117.9	127.9	115.9	100.4	80.7	89.6	98.7	99.4
Aver....	73.3	96.6	92.1	87.3	98.0	101.7	100.3	104.1	107.8	113.3	125.3	123.7	109.0	88.6	82.7	95.5	96.9

¹ Compiled by the Division of Employment and Pay Rolls, Bureau of Labor Statistics.

Chart 2 shows clearly that the baker's job is relatively steady even in periods of acute depression. Thus, during the depression of 1920-22, while employment and pay rolls in manufacturing as a whole dropped sharply, employment and pay rolls in the baking industry showed only a moderate decline. Likewise, during the relatively mild depressions of 1924 and 1927-28, the curves for the baking industry were remarkably well maintained in comparison with those for all manufacturing. The most striking contrast, however, between the two series is illustrated by the recent depression. In all manufacturing industries, the drop from the high point to the low point was 46.1 percent in employment and 67.1 percent in pay rolls,²⁰ while the reduction in the baking industry amounted respectively to 27.1 and 43.0 percent. In December 1935, compared to 1923-25 as a base, the index number for all manufacturing industries stood at 84.6 in employment and 76.6 in pay rolls, as against 112.4 in employment and 99.4 in pay rolls for the baking industry.

²⁰ The high and low points for all manufacturing industries were respectively in September 1929 and March 1933. The high and low points in the baking industry were respectively in October 1929 and March 1933.



Likewise, there is relatively little seasonal variation in employment in the baking industry. Usually, the greatest slack comes after New Year's Day with increased activity during the summer months and late in the year. One important element in the summer is a decrease in home baking during hot weather. Baking in resort areas also increases sharply during the summer months.

Changes in Conditions of Work

The conditions under which bakery employees worked in the early days of the industry were notoriously bad. With respect to these conditions, a union organizer reports as follows:

Many worked 7 days in the week * * * and the hours of continuous toil amounted daily to from 14 to 18 hours. It must be remembered that this was night work, performed underground within the atmosphere of one or more ovens at full heat, intermixed with bad odors produced by the process of fermentation or coming from defective sewerage, or both. Many were compelled to board with their employers, who compelled them to sleep in the very cellar hole wherein they had been drudging the last 20 hours. But in many cases there was not even a bed to lie upon, and a number of flour sacks placed on the top of the trough served as a bunk where the men threw their tired bodies, undressed and full of perspiration, to rest for from 3 to 5 hours. The principal food served to these men by their masters consisted in many cases of cheese, cheap sausage, and bread; the beer they had to supply themselves. The wages ranged, according to the grade of work men were able to perform, from \$2 to \$12 per week.²¹

A survey made in New York City in 1881 by the same person, covering 505 bakers, showed that these men worked "100½ hours each on an average per week; or, if we distribute their work equally among the 6 working days in the week, they worked each on an average of 16⅔ hours a day. But the length of their working days were actually very differently distributed. In most bakeries the Sunday labor was no more than 5 hours on an average. On week days it was almost universally 16 hours a day, Saturdays excepted, when the number of hours was greater, reaching even 23 hours of continuous work."²² These men gave their wages as "being on an average \$8.20 for each one, or 8½ cents for each of the 100 working hours."²²

In view of the close relation of bread to public health, the improvement in the sanitary conditions of bakeries early became a question of public control. Various laws have been enacted in numerous States regulating the conditions of employment of bakery workers. These deal not only with sanitation but also with hours of labor. Regulation of hours in the baking industry has even been extended to men. A law in New York, limiting the hours of bakery employees to 10 a day and 60 a week, was declared unconstitutional by the United States Supreme Court in 1905, on the ground that no relationship was seen to exist between such a regulation and clean and wholesome bread.²³ This ruling, however, was reversed by the United States Supreme Court in 1917 in connection with a 10-hour law in Oregon.²⁴

A considerable part of the improvement in labor conditions in the industry was brought about through the voluntary efforts of employers, especially those operating larger plants.

Much credit in this respect is also due to the organization of bakery workers. Between 1880 and 1885, sporadic attempts were made to

²¹ George G. Block, *Concise History of the Journeymen Bakers' National Union of the United States*, p. 1.

²² *Ibid.*, p. 2.

²³ *Lockner v. New York*, 198 U. S. 45, 25 Sup. Ct. 539 (1905).

²⁴ *Bunting v. Oregon*, 243 U. S. 246, 37 Sup. Ct. 435 (1917).

form unions of bakers in a number of cities. The most famous of these was the one in New York City in 1880. This movement, which covered about 5,000 German bakers in New York and Brooklyn, was followed by an unsuccessful strike in 1881 that virtually put an end to the local union. In 1885, a few remnants of the union joined in establishing a German weekly under the name of the German-American Bakers' Journal, which was followed in 1886 by the formation of a national union, called the Journeymen Bakers' National Union of the United States of America.²⁵ The jurisdiction of this organization was extended in 1903 to the candy and ice-cream workers, and the name was changed to the Bakery and Confectionery Workers' International Union of America.

Although the Bakery and Confectionery Workers' International Union is organized on an industrial basis, with membership open to all workers of both sexes engaged in bread, cake, pie, cracker, pretzel, pastry, candy, and ice-cream manufacture, the membership consists largely of skilled and semiskilled workers among the processing employees.²⁶ The driver-salesmen usually belong to the International Brotherhood of Teamsters, Chauffeurs, Stablemen, and Helpers of America.

The Bakery and Confectionery Workers' International Union has experienced a fairly steady but slow growth in membership. In May 1935, the union reported to the Bureau of Labor Statistics 30,600 members. Numerically, the union's strongholds are in New York, Chicago, Cleveland, and St. Louis. There is also relatively greater union organization in cities of lower New England than in other geographic sections of the country. The union has met with more success in organizing small-scale shops than large establishments.

Agreements are negotiated by the local unions acting independently. A degree of uniformity, however, is imposed through the requirement in the constitution of the International that its general executive board approve the proposed terms of the local agreements prior to conferences with employers. Frequently, numerous employers within the same city will sign union agreements which carry identical provisions. Supplementary to the negotiating of agreements has been the use of union-label campaigns and strikes to reinforce the workers' bargaining power.

²⁵ Block, *Concise History of the Journeymen Bakers' National Union of the United States*, pp. 3-5.

²⁶ In 1921, a group of bakers in New York City left the union and helped to form the Amalgamated Food Workers of America, which aimed to organize the workers in all branches and processes of food production and distribution. Early in 1935, however, the bakery locals of the Amalgamated voted to reunite with the International, and by the close of the year most of them had been reabsorbed.

Chapter II.—Scope and Method

Extent of Coverage

Since the purpose of the survey was primarily to ascertain the effect of the code upon labor, the code definition of the "baking industry"²⁸ was taken as the guide in determining the extent and limits of this survey. The plants covered were, therefore, those making bread, rolls, cakes, pies, cookies, doughnuts, and other sweet yeast-raised goods, including the distribution of these goods by them through driver-salesmen, trucks, and retail or wholesale stores or similar outlets. Omitted from the survey were hotels, restaurants, and other similar businesses, baking for their own sale or consumption only, and bakers of biscuit, crackers, pretzels, matzoths, and ice-cream cones. The omitted producers were generally subject to codes other than that of the baking industry. In other words, the survey was limited to the bread division only, thus excluding biscuit and crackers.

The survey covered three pay-roll periods, each representing a different phase in the recent history of the industry. These periods are as follows:

Second half of March 1933—lowest level of business depression.²⁹

Second half of September 1933—period of President's Reemployment Agreement, with allegedly substantial wage increases and reduction in hours. (The President's Reemployment Agreement became effective during the latter part of July 1933, and substitute wages and hours provisions for the baking industry were agreed upon about the middle of August.)

First half of December 1934—approximately 6 months after the permanent code had been in operation. (The effective date of the code was June 18, 1934.)

The sample taken as representative of the industry includes an estimated 10 to 11 percent of all bakery workers in the bread division. A larger coverage could not be attempted economically because of the prevalence of small establishments. The total numbers of plants and employees included during each pay-roll period appear in table 4.

TABLE 4.—Coverage of survey for each of three pay-roll periods

Pay-roll period	Number of establishments	Number of employees		
		Total	Male	Female
March 1933.....	250	16,480	14,585	1,895
September 1933.....	256	18,782	16,609	2,173
December 1934.....	259	20,962	18,348	2,614

²⁸ Baking-Industry Code, art. II, sec. 1:
 "The term 'Baking Industry' * * * shall mean the manufacture, distribution including trucking, and/or sale, in any manner whatsoever, of bakery products. Said term shall not include (a) hotels, clubs, restaurants, and similar places where bakery products are manufactured exclusively for consumption at the place of manufacture; (b) wholesale or retail groceries, provided the owner or operator thereof does not manufacture, directly or indirectly, through an agent, affiliate unit, or otherwise, any part of the bakery products offered for sale therein. If wholesale or retail groceries do so manufacture any part of the bakery products offered for sale therein, as to them said term shall include only the manufacture, distribution including trucking, and/or sale of the bakery products manufactured by them."

Sec. 2 of the same article states further:
 "The term 'bakery products' as used herein includes bread, rolls, cakes, pies, cookies, doughnuts and similar goods, and other sweet yeast-raised goods, but does not include biscuits, crackers, pretzels, matzoths, or ice-cream cones."

²⁹ For a discussion of the effect of the depression on the baking industry, see p. 16.

Factors Considered in Selection of Sample

Although the coverage was not large, the selection of the bakeries surveyed was made with great care, in order that the sample secured might be a fair representation of the trade as a whole. Among the factors taken into consideration in making the selection of establishments were geographical distribution, size of city, size of establishment, unionization, degree of mechanization, type of distribution, and product.

Owing to the spread of the baking industry, the sample was made to embrace a fairly wide geographical distribution. The establishments covered were located in 66 cities in 37 States and the District of Columbia. The selection of these cities and States, which was made in consultation with representatives of the Code Authority of the N. R. A. and the bakery union, was sufficiently adequate to indicate regional differences between the North and the South, as provided in the code. The South was defined in the code as embracing Alabama, Arkansas, Florida, Georgia, Kentucky, Louisiana, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, and Virginia.³⁰ With the exception of Mississippi, all of these were included in the sample. The number of cities covered in the South totaled 22. The remaining 25 States³¹ and the District of Columbia, with their 44 cities, have been classified here as belonging to the North. A list of the cities covered by the survey follows.

List of Cities included in Sample

North

Albany, N. Y.	Fargo, N. Dak.	Omaha, Nebr.
Auburn, Maine	Fitchburg, Mass.	Philadelphia, Pa.
Baltimore, Md.	Galesburg, Ill.	Pittsburgh, Pa.
Bay City, Mich.	Grand Rapids, Mich.	Providence, R. I.
Boston, Mass.	Huntington, W. Va.	San Francisco, Calif.
Bridgeport, Conn.	Indianapolis, Ind.	Scranton, Pa.
Cedar Rapids, Iowa.	Joplin, Mo.	Sioux Falls, S. Dak.
Charleston, W. Va.	Lima, Ohio	St. Louis, Mo.
Chicago, Ill.	Lincoln, Nebr.	Syracuse, N. Y.
Cincinnati, Ohio.	Los Angeles, Calif.	Topeka, Kans.
Denver, Colo.	Madison, Wis.	Trenton, N. J.
Des Moines, Iowa.	Manchester, N. H.	Wilmington, Del.
Detroit, Mich.	Middletown, Conn.	Washington, D. C.
Elmira, N. Y.	Minneapolis, Minn.	Zanesville, Ohio
Evansville, Ind.	New York, N. Y.	

South

Atlanta, Ga.	Lakeland, Fla.	New Orleans, La.
Columbia, S. C.	Little Rock, Ark.	Oklahoma City, Okla.
Dallas, Tex.	Louisville, Ky.	Paducah, Ky.
Enid, Okla.	Macon, Ga.	Raleigh, N. C.
Houston, Tex.	Memphis, Tenn.	Richmond, Va.
Jacksonville, Fla.	Miami, Fla.	Shawnee, Okla.
Johnson City, Tenn.	Mobile, Ala.	Waco, Tex.
Knoxville, Tenn.		

³⁰ The same States, with the exception of Kentucky, were included in the South in connection with the substitute provision in the President's Reemployment Agreement pertaining to minimum wages.

³¹ These were California, Colorado, Connecticut, Delaware, Illinois, Indiana, Iowa, Kansas, Maine, Maryland, Massachusetts, Michigan, Minnesota, Missouri, Nebraska, New Hampshire, New Jersey, New York, North Dakota, Ohio, Pennsylvania, Rhode Island, South Dakota, West Virginia, and Wisconsin.

The fact that there are differences in wages according to size of city was recognized by both the President's Reemployment Agreement and the code, which set the minimum rates of pay for office and sales employees on the basis of the population of cities. For this reason, population was also considered in the selection of the cities included in this survey. Among the cities covered, 22 had a population of 250,000 and over, 27 a population of 50,000 and under 250,000, and 17 a population under 50,000. Nearly all of the cities in the "under 50,000" group were county-seat towns serving rural areas, which were taken in order to bring out the particular effects upon the labor of such areas.³²

An analysis of the sample, showing the number of establishments by region and size of city and the number of employees by region, size of city, and sex in December 1934, appears in table 5.

TABLE 5.—Coverage of survey by region and size of city, December 1934

Region and size of city	Number of establishments	Number of employees		
		Total	Male	Female
United States:				
250,000 and over.....	156	15,926	13,988	1,938
50,000 and under 250,000.....	71	4,135	3,570	565
Under 50,000.....	32	901	790	111
Total.....	259	20,962	18,348	2,614
North:				
250,000 and over.....	128	14,360	12,615	1,745
50,000 and under 250,000.....	46	2,596	2,312	284
Under 50,000.....	22	660	574	86
Total.....	196	17,616	15,501	2,115
South:				
250,000 and over.....	28	1,566	1,373	193
50,000 and under 250,000.....	25	1,539	1,258	281
Under 50,000.....	10	241	216	25
Total.....	63	3,346	2,847	499

As previously mentioned, the baking industry is one in which the small unit still predominates, the average number of employees per establishment in 1933 being approximately 11. This survey did not include any plants with less than four employees, many of which were run as family businesses with no outside help. Furthermore, considerable difficulty was encountered in obtaining data from small bakeries with four or more workers, due chiefly to the lack of adequate pay-roll records. As a result, although some plants with 10 or less employees were included, the average number of employees per plant covered was 81 in December 1934. The distribution of plants covered according to size appears in table 6.

³² A few additional cities of this class were covered by the field representatives of the Bureau, but the bakeries visited in each place were either entirely too small or they had no records available.

TABLE 6.—*Distribution of establishments in sample according to number of employees, December 1934*¹

Number of employees in establishment	Number of establishments
10 and under.....	27
11 and under 50.....	104
50 and under 100.....	60
100 and under 200.....	49
200 and under 500.....	15
500 and over.....	4
Total.....	259

¹ This may be compared with the census distribution, as shown in table 2, p. 12.

An effort was also made to have the sample properly representative of both union and nonunion establishments. As the survey was concerned chiefly with processing or "direct" workers, however, a plant was classified as "union" or "nonunion" on the basis of whether or not it had a contract with the Bakery and Confectionery Worker's International Union of America. It has already been pointed out that this union frequently does not include certain classes of "indirect" labor, so that comparisons of "union" and "nonunion" employees are drawn only with respect to the "direct" labor or workers largely found in this organization. There are few union establishments in the South. Of the 63 southern plants covered by the survey, only 7 had union contracts. In the North, on the other hand, 59 of the 196 bakeries included in the sample had union contracts.

One of the major issues in the industry arising out of the baking code was the provision relating to weekly hours, which set a maximum of 48 for "handicraft shops", as compared with 40 for "other than handicraft shops." Handicraft bakeries were defined by the code as those that "use no power-driven machines other than mixers and dough brakes in the processing of their products and which do not employ more than 10 bake-shop employees." Members of the industry proposed that "other than handicraft shops" should be subdivided to create another class, namely "semihandicraft shops", which should have a maximum of 44 hours per week. It was proposed that "semihandicraft shops" be defined as those "in which at least 80 percent of the total working hours of all production employees, as such, is spent in hand operation; i. e., not in operation of any power-driven processing machines." Bakeries "other than handicraft shops and semihandicraft shops" would thus be mechanical shops, which, it was proposed, should continue to have a maximum of 40 hours per week. The 259 bakeries included in the sample represent each of these classes of establishment, although it may be noted that the number of mechanical bakeries surveyed, is considerably larger than that in the other two classes, due in part to the difficulty of finding adequate records among the smaller shops such as comprise largely the handicraft and semihandicraft classes.

The code also defined bakeries according to type of distribution, such as retail, local wholesale, multi-State, house-to-house, multiple

unit retail, and chain store.³³ Each of these types is well represented in the sample. The code classification has, however, been changed for the purpose of the survey into the following:

1. Retail and house-to-house bakeries.
2. Local wholesale bakeries.
3. Multi-State, multiple-unit retail, and chain-store bakeries.

The last group contains primarily the largest bakery chains in the country.

Finally, in classifying establishments the code distinguished between various products.³⁴ The classification by products used in this survey is as follows: Bread; cake, sweet goods, and pies, including cake specialties; and bread specialties. The last item is unimportant, the number of bakeries making bread specialties being small in the North and virtually nonexistent in the South.

An analysis of the sample in December 1934, showing the number of bakeries and employees classified by region and by degree of mechanization, type of distribution, and product, will be found in table 7.

TABLE 7.—Coverage of survey by degree of mechanization, type of distribution, and kind of product, as to region, December 1934

Kind of bakery	United States				North			South				
	Number of establishments	Number of employees			Number of establishments	Number of employees			Number of establishments	Number of employees		
		Total	Male	Female		Total	Male	Female		Total	Male	Female
Degree of mechanization:												
Handicraft.....	39	473	367	106	26	323	258	65	13	150	109	41
Semihandicraft.....	43	1,357	1,131	226	37	1,193	991	202	6	164	140	24
Mechanical.....	177	19,132	16,850	2,282	133	16,100	14,252	1,848	44	3,032	2,598	434
Total.....	259	20,962	18,348	2,614	196	17,616	15,501	2,115	63	3,346	2,847	499
Type of distribution:												
Retail and house-to-house.....	60	3,696	3,168	528	47	3,289	2,842	447	13	407	326	81
Local wholesale.....	123	6,980	6,225	755	92	5,327	4,792	535	31	1,653	1,433	220
Multi-State, multiple-unit retail, and chain store.....	76	10,286	8,955	1,331	57	9,000	7,867	1,133	19	1,286	1,088	198
Total.....	259	20,962	18,348	2,614	196	17,616	15,501	2,115	63	3,346	2,847	499
Product:												
Bread.....	227	16,832	15,556	1,276	169	13,934	12,949	985	58	2,898	2,607	291
Cake, sweet goods, and pies, including cake specialties.....	24	3,775	2,455	1,320	19	3,327	2,215	1,112	5	448	240	208
Bread specialties.....	8	355	337	18	8	355	337	18				
Total.....	259	20,962	18,348	2,614	196	17,616	15,501	2,115	63	3,346	2,847	499

³³ The definitions of each of these are as follows:

Retail bakers—"persons who manufacture and sell bakery products to the consumer through their own retail stores, who own or control not more than three stores, and who sell at least 70 percent of this product at retail over the counter."

Local wholesale bakers—"persons who manufacture and sell bakery products at wholesale and who manufacture entirely within one State."

Multi-State bakers—"persons who manufacture bakery products in more than one State."

House-to-house bakers—"persons who manufacture bakery products and distribute them by their own vehicles directly to the consumer at the point of consumption."

Multiple-unit retail bakers—"persons who manufacture bakery products and distribute them to the consumer through their own retail stores and who own or control four or more such outlets", but not "chain-store bakers."

Chain-store bakers—"persons who manufacture bakery products and distribute them through their own or through a parent company's or subsidiary company's retail grocery stores."

³⁴ The definitions given in the code are as follows:

Cake bakers—"persons who manufacture and sell, at wholesale, bakery products of which at least 75 percent is cake."

Specialty bakers—"persons who manufacture and sell bakery products of a type and kind to fit a particular racial or national taste and/or market demand for special variety products not considered as standard in the industry (as compared with units of products generally sold in large volume) and the production of which requires special skill."

Pie bakers—"persons who manufacture and sell, at wholesale, bakery products of which at least 75 percent is pies."

Information Collected

The information obtained in this survey was limited to three principal topics—namely, wages and hours, personnel policies, and occupational descriptions.

The wages and hours data are based on transcripts of actual pay rolls for the three periods covered. Information was obtained for each employee on occupation, sex, total earnings, and total hours actually worked in 1 week. Average hourly earnings were calculated for individual employees. The data were then used to compute averages and frequency distributions of employees by average hourly earnings, weekly hours, and weekly earnings as to sex, region, and occupation.

Data are also presented by broad occupational groupings. Male workers employed as "direct" labor were grouped as "skilled", "semi-skilled", and "unskilled"; these classes, together with "indirect" labor, which is composed of driver-salesmen and "other" workers, embraced all male employees in the industry. Among females engaged in occupations constituting "direct" labor, there were not enough "skilled" and "semiskilled" workers to warrant separate tabulations, and as a result these workers were included in the group tabulated as "other miscellaneous indirect" labor, the latter together with the "unskilled" in "direct" labor constituting the only two broad occupational groupings used. An analysis of the number of employees covered in December 1934 by occupational classes, as to sex and region, will be found in table 8.³⁵

Averages were also computed by size of city, by union and nonunion shops, and by establishments classified according to degree of mechanization, type of distribution, and product.

TABLE 8.—Coverage of survey by occupational class, as to sex and region, December 1934

Sex and occupational class	Number of employees	
	North	South
<i>Males</i>		
Direct labor:		
Skilled:		
Bench hands or hand bakers.....	807	170
Cake makers.....	494	1 65
Dividers or scalers and rounders.....	304	1 72
Mixers.....	429	1 95
Molders.....	341	1 63
Ovenmen.....	628	146
Miscellaneous, skilled.....	158	21
Total.....	3,161	632
Semiskilled:		
Bench hands' or hand bakers' helpers.....	246	2 52
General helpers.....	608	116
Mixers' helpers.....	437	2 68
Ovenmen's helpers.....	617	147
Miscellaneous, semiskilled.....	198	11
Total.....	2,106	394

¹ Included under direct labor, miscellaneous, skilled, for purposes of averages and frequency distributions.

² Included under direct labor, miscellaneous, semiskilled, for purposes of averages and frequency distributions.

³⁵ "Direct" labor, sometimes called productive labor, includes here processing workers.

TABLE 8.—Coverage of survey by occupational class, as to sex and region, December 1934—Continued

Sex and occupational class	Number of employees	
	North	South
<i>Males—Continued</i>		
Direct labor—Continued.		
Unskilled:		
Bread packers.....	459	3 56
Bread wrappers, automatic.....	569	155
Cake wrappers and packers.....	145	3 11
Pan greasers.....	154	3 41
Miscellaneous, unskilled.....	158	53
Total.....	1,485	316
Indirect labor:		
Driver-salesmen.....	4,609	800
Other:		
Auditors, bookkeepers, etc.....	141	4 38
Chauffeurs and drivers.....	228	4 39
Laborers.....	206	4 40
Maintenance and repair, skilled.....	479	4 61
Maintenance and repair, semiskilled.....	437	4 58
Office clerks.....	397	4 66
Service, unskilled.....	578	4 147
Supervisory, skilled.....	814	4 91
Miscellaneous, skilled.....	165	4 54
Miscellaneous, semiskilled.....	413	4 59
Miscellaneous, unskilled.....	282	4 52
Total.....	4,140	705
<i>Females</i>		
Direct Labor:		
Unskilled:		
Bread wrappers, hand.....	111	4 10
Cake finishers.....	262	4 51
Cake wrappers and packers.....	501	4 135
Total.....	874	196
Indirect Labor:		
Other:		
Office clerks.....	277	3 55
Stenographers, typists, telephone operators, etc.....	167	3 26
Store clerks.....	360	102
Miscellaneous ⁶	437	120
Total.....	1,241	303

³ Included under direct labor, miscellaneous, unskilled, for purposes of averages and frequency distributions.

⁴ No separate averages and frequency distributions shown.

⁵ Included under indirect labor, miscellaneous, for purposes of averages and frequency distributions.

⁶ Includes a small number of skilled and semiskilled workers engaged in direct labor.

The information relating to personnel policies was obtained by means of interviews with executives or other persons in charge of this work in the various firms. It covered employment policies, methods of wage payment, working conditions, and welfare work.

Detailed occupational descriptions in the baking industry were first published by the Bureau in 1931. This information was supplemented during the present survey by obtaining for all establishments descriptions of new occupations and of occupations not covered at that time (pie departments or establishments), as well as by noting any changes in the other occupations. As a result of this additional information, the occupational classification and glossary for the industry has been revised.

Comparisons with 1931

As indicated before, the last survey in the baking industry made by the Bureau was in the fall of 1931, the data collected being based on pay-roll records mainly for the months of September, October, or November. The coverage of the survey was similar to that of the present one, except that pie departments and establishments were excluded, but the latter are only of minor importance in terms of the number of wage earners. Accordingly, it is possible to make comparisons between the 1931 and the 1933-34 figures.

The data in 1931 were tabulated separately by bread and cake departments, so that in making comparisons with figures in the present survey it was necessary to combine the former data to obtain figures for the industry as a whole. This has been done, and comparisons have been made for average hourly earnings, weekly hours, and weekly earnings.

Chapter III.—Average Hourly Earnings

Changes in Bread Industry in Country as a Whole

Due to the operation of the President's Reemployment Agreement and the code, the average hourly earnings in the bread industry in the country as a whole increased markedly between March 1933 and December 1934. From March to September 1933, at the end of which period the President's Reemployment Agreement had been in effect for over a month, the average hourly earnings rose from 45.5 to 50.7 cents, a gain of 5.2 cents or 11.4 percent. Likewise, from September 1933 to December 1934, after the permanent code had been in effect approximately 5 months, the average hourly earnings advanced further to 54.9 cents, a rise of 4.2 cents or 8.3 percent. The total gain between March 1933 and December 1934 amounted to 9.4 cents an hour, or 20.7 percent.

The increase in average hourly earnings was not limited to any particular wage class. This is indicated by table 9, which presents the simple and cumulative percentage distribution of employees according to average hourly earnings in the country as a whole. The simple percentages are also plotted in chart 3, showing in general a reduction in the percentages of lower-paid workers and an increase in the percentages of higher-paid workers.

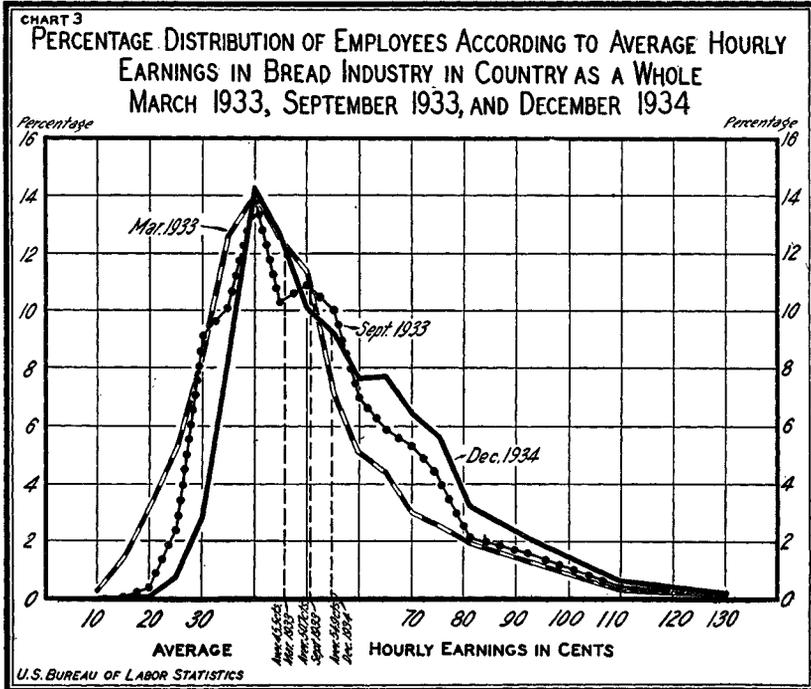
Between March and September 1933, there was a shrinkage in the percentages of employees in nearly all classes under 52.5 cents per hour and an increase in nearly all classes above that figure. During this period, the percentage earning less than 27.5 cents per hour declined from 10.1 to 2.9. Those earning 27.5 cents to 52.5 cents per hour constituted 58.9 percent of the total number of employees in March and 54.3 percent in September. On the other hand, the increase in the proportion earning 52.5 cents and under 72.5 cents was from 19.7 percent in March to 28.2 percent in September, and the gain in the classes of 72.5 cents and over was from 11.3 percent in March to 14.6 percent in September.

TABLE 9.—*Percentage distribution of employees according to average hourly earnings in bread industry in country as a whole*

Average hourly earnings	March 1933		September 1933		December 1934	
	Simple percentage	Cumulative percentage	Simple percentage	Cumulative percentage	Simple percentage	Cumulative percentage
Under 12.5 cents.....	0.3	0.3	(1)	(1)	(1)	(1)
12.5 and under 17.5 cents.....	1.4	1.7	0.1	0.1	(1)	(1)
17.5 and under 22.5 cents.....	3.2	4.9	2.4	2.5	0.1	0.1
22.5 and under 27.5 cents.....	5.2	10.1	2.4	2.9	.8	.9
27.5 and under 32.5 cents.....	8.4	18.5	9.1	12.0	2.8	3.7
32.5 and under 37.5 cents.....	12.6	31.1	10.1	22.1	8.3	12.0
37.5 and under 42.5 cents.....	14.0	45.1	13.9	36.0	14.2	26.2
42.5 and under 47.5 cents.....	12.5	57.6	10.3	46.3	12.7	38.9
47.5 and under 52.5 cents.....	11.4	69.0	10.9	57.2	10.1	49.0
52.5 and under 57.5 cents.....	7.2	76.2	10.0	67.2	9.2	58.2
57.5 and under 62.5 cents.....	5.1	81.3	7.0	74.2	7.6	65.8
62.5 and under 67.5 cents.....	4.4	85.7	5.9	80.1	7.7	73.5
67.5 and under 72.5 cents.....	3.0	88.7	4.3	85.4	6.4	79.9
72.5 and under 77.5 cents.....	2.6	91.3	3.2	89.7	5.7	85.6
77.5 and under 85.0 cents.....	2.8	94.1	3.2	92.9	4.8	90.4
85.0 and under 100.0 cents.....	3.9	98.0	4.8	97.7	6.3	96.7
100.0 and under 120.0 cents.....	1.3	99.3	1.7	99.4	2.5	99.2
120.0 cents and over.....	.7	100.0	.6	100.0	.8	100.0

¹ Less than 1/10 of 1 percent.

Between September 1933 and December 1934, those earning under 37.5 cents per hour dropped from 22.1 percent to 12.0 percent, and the percentage earning less than 57.5 cents fell from 67.2 to 58.2. By contrast, the increase in the classes of 57.5 cents and under 77.5 cents was from 22.5 percent in September 1933 to 27.4 in December 1934, and those earning 77.5 cents and over increased from 10.3 percent of the total number of workers in September 1933 to 14.4 percent in December 1934.



Increases Confirmed by Employment and Pay-Roll Data for Entire Baking Industry

The above increases are confirmed by the index numbers of average hourly earnings covering workers in the entire industry, including biscuit and crackers, which are compiled monthly by the Division of Employment and Pay Rolls of this Bureau.³⁶ These index numbers are given in table 10.

³⁶ The average hourly earnings computed by the Division of Employment and Pay Rolls are very similar to those obtained in this survey, their figures being 44.1 cents in March 1933, 50.3 cents in September 1933, and 54.0 in December 1934.

The average of 54.0 cents per hour in December 1934 for baking may be compared with similar data in other food industries, such as 75.5 cents for beverages, 57.3 cents for slaughtering and meat packing, 54.8 cents for ice cream, 54.3 cents for flour, 52.0 cents for cane-sugar refining, 45.7 cents for beet-sugar refining, 42.9 cents for confectioneries, and 38.9 cents for canning and preserving.

TABLE 10.—*Index numbers of average hourly earnings in entire baking industry¹ in the United States, by months, 1932-35²*

[January 1932=100]

Months	1932	1933	1934	1935
January.....	100.0	92.8	103.5	108.3
February.....	100.8	91.1	104.9	107.3
March.....	99.3	91.6	103.4	107.5
April.....	97.8	90.6	102.0	108.7
May.....	97.8	89.8	105.2	109.5
June.....	96.7	90.2	105.0	109.7
July.....	96.3	90.7	108.2	109.0
August.....	95.8	96.9	110.9	109.4
September.....	95.7	102.3	110.9	109.0
October.....	94.8	102.9	111.4	108.2
November.....	94.6	102.9	111.4	108.9
December.....	94.1	103.3	111.4	109.1

¹ Includes biscuit and crackers.

² Compiled by the Division of Employment and Pay Rolls, Bureau of Labor Statistics.

The index numbers indicate a considerable rise between July and September 1933, in response to the President's Reemployment Agreement. There had been an almost uninterrupted decline from January 1932, when figures on average hourly earnings were first compiled by the Bureau, until about the middle of 1933. Thereafter the trend was reversed, the index rising from 90.7 in July to 96.9 in August. It will be remembered that it was during the latter part of July that the President's Reemployment Agreement went into effect, and this was followed on August 17 by the approval of the substitute provisions for the baking industry. By September, more establishments had apparently complied with the provisions of the agreement, as the index rose to 102.3. Due probably to further readjustments in wages, the index continued to advance moderately until February 1934, at which time it stood at 104.9.

The index numbers likewise show that the gain from September 1933 to December 1934 can be attributed primarily to the code, which went into effect June 18, 1934. After a small decline first and later a recovery in average hourly earnings during the spring of 1934, there occurred another sharp increase from 105.0 in June to 108.2 in July. Further readjustments in wages continued this rise until the end of 1934, when the index number reached a high level of 111.4.

Changes in Averages By Region and Sex in Bread-baking Industry

The increases in average earnings per hour in the bread-baking industry were shared by all parts of the country and by both male and female workers, as indicated by table 11 and chart 4. In each case, the relative gain between March and September 1933 exceeded that between September 1933 and December 1934. An examination of the data shows that the same was true of the absolute increases, with the exception of males in the north, who received about the same increase in both periods.

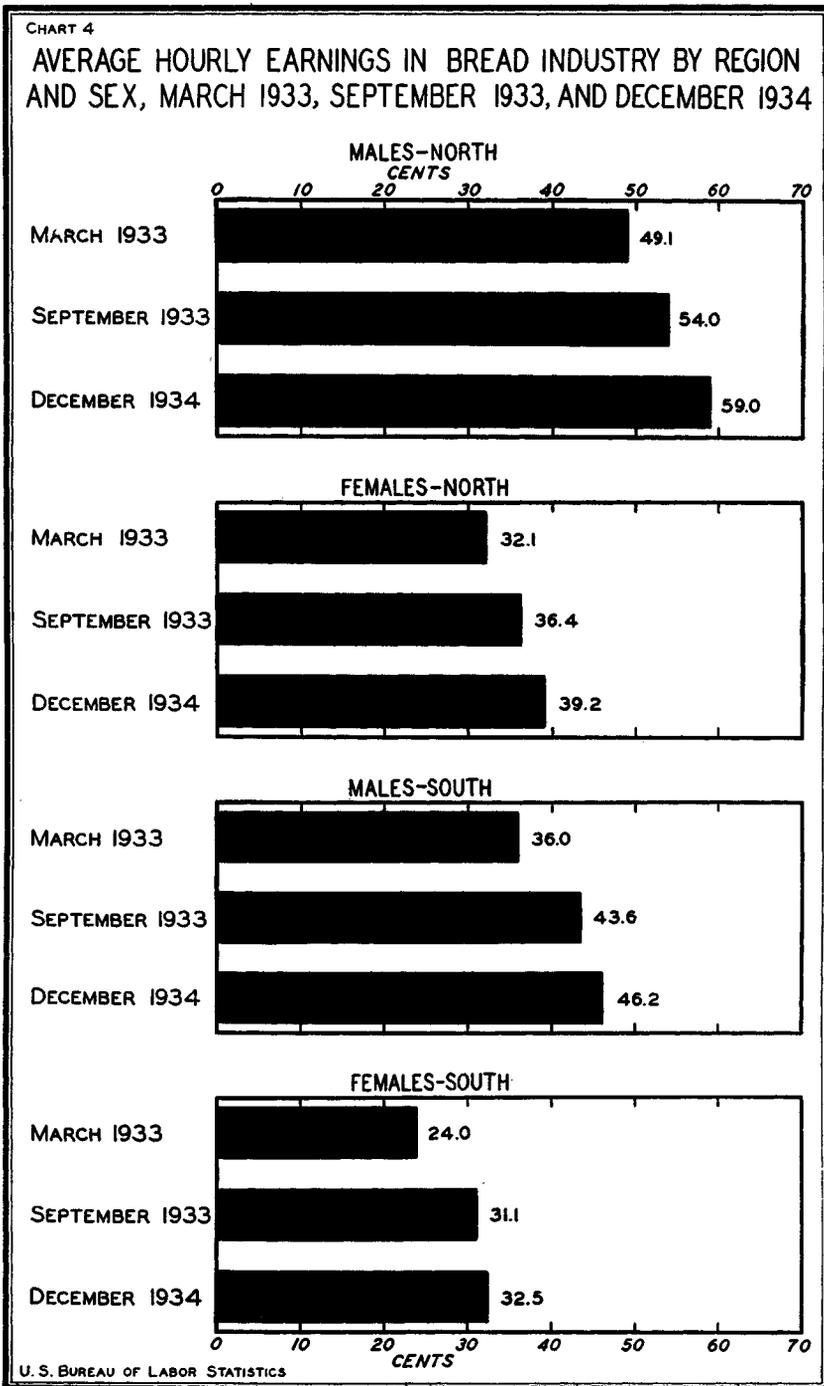


TABLE 11.—Average hourly earnings in bread industry by region and sex

Region and sex	Average hourly earnings			Percentage of change		
	March 1933	September 1933	December 1934	March to September 1933	September 1933 to December 1934	March 1933 to December 1934
United States:						
Males.....	\$0.471	\$0.524	\$0.570	+11.3	+8.8	+21.0
Females.....	.307	.354	.379	+15.3	+7.1	+23.5
Total.....	.455	.507	.549	+11.4	+8.3	+20.7
North:						
Males.....	.491	.540	.590	+10.0	+9.3	+20.2
Females.....	.321	.364	.392	+13.4	+7.7	+22.1
Total.....	.475	.523	.569	+10.1	+8.8	+19.8
South:						
Males.....	.360	.436	.462	+21.1	+6.0	+28.3
Females.....	.240	.311	.325	+29.6	+4.5	+35.4
Total.....	.346	.421	.445	+21.7	+5.7	+28.6

For the period as a whole, the relative gains were greater in the South than in the North and greater for females than for males. In absolute increases, the South also exceeded the North, but the gains reported for males were larger than those for females. The total absolute increases in average hourly earnings from March 1933 to December 1934 were as shown in table 12.

TABLE 12.—Total absolute increases in average hourly earnings from March 1933 to December 1934

Sex	United States	North	South
	<i>Cents</i>	<i>Cents</i>	<i>Cents</i>
Males.....	9.9	9.9	10.2
Females.....	7.2	7.1	8.5
Total.....	9.4	9.4	9.9

Although the rise in average earnings per hour reflects the general effects of the President's Reemployment Agreement and the code, a better picture of the influence of each of these factors can be obtained by a study of the percentage distribution of employees according to average hourly earnings for each region and sex. This is shown in table 13.

TABLE 13.—Percentage distribution of employees according to average hourly earnings by region and sex

Region, sex, and average hourly earnings	March 1933		September 1933		December 1934	
	Simple percentage	Cumulative percentage	Simple percentage	Cumulative percentage	Simple percentage	Cumulative percentage
<i>North</i>						
Males:						
Under 22.5 cents.....	3.0	3.0	0.4	0.4	(1)	(1)
22.5 and under 27.5 cents.....	4.0	7.0	1.5	1.9	0.2	0.2
27.5 and under 32.5 cents.....	7.2	14.2	7.2	9.1	1.9	2.1
32.5 and under 37.5 cents.....	12.2	26.4	9.0	18.1	5.1	7.2
37.5 and under 42.5 cents.....	14.2	40.6	13.8	31.9	14.0	21.2
42.5 and under 47.5 cents.....	13.0	53.6	10.3	42.2	12.8	34.0
47.5 and under 52.5 cents.....	12.4	66.0	11.4	53.6	10.3	44.3
52.5 and under 57.5 cents.....	7.7	73.7	10.5	64.1	9.7	54.0
57.5 and under 62.5 cents.....	5.4	79.1	7.6	71.7	8.3	62.3
62.5 and under 67.5 cents.....	4.8	83.9	6.2	77.9	8.3	70.6
67.5 and under 72.5 cents.....	3.4	87.3	5.9	83.8	6.9	77.5
72.5 and under 77.5 cents.....	2.9	90.2	4.8	88.6	6.4	83.9
77.5 and under 85.0 cents.....	3.1	93.3	3.4	92.0	5.3	89.2
85.0 and under 100.0 cents.....	4.4	97.7	5.5	97.5	7.0	96.2
100.0 cents and over.....	2.3	100.0	2.5	100.0	3.8	100.0
Females:						
Under 17.5 cents.....	4.4	4.4	(1)	(1)	(1)	(1)
17.5 and under 22.5 cents.....	15.5	19.9	1.3	1.3	(1)	(1)
22.5 and under 27.5 cents.....	22.3	42.2	5.4	6.7	1.9	1.9
27.5 and under 32.5 cents.....	13.7	55.9	41.6	48.3	21.3	23.2
32.5 and under 37.5 cents.....	16.3	72.2	19.2	67.5	29.9	53.1
37.5 and under 42.5 cents.....	11.6	83.8	11.7	79.2	24.5	77.6
42.5 and under 47.5 cents.....	6.3	90.1	8.1	87.3	8.7	86.3
47.5 and under 52.5 cents.....	5.6	95.7	5.9	93.2	5.9	92.2
52.5 and under 75.0 cents.....	3.9	99.6	6.1	99.3	6.6	98.8
75.0 cents and over.....	.4	100.0	.7	100.0	1.2	100.0
<i>South</i>						
Males:						
Under 17.5 cents.....	7.4	7.4	.6	.6	.1	.1
17.5 and under 22.5 cents.....	9.6	17.0	1.3	1.9	.3	.4
22.5 and under 27.5 cents.....	12.1	29.1	7.0	8.9	4.0	4.4
27.5 and under 32.5 cents.....	15.7	44.8	19.6	28.5	7.6	12.0
32.5 and under 37.5 cents.....	14.9	59.7	16.4	44.9	25.7	37.7
37.5 and under 42.5 cents.....	12.6	72.3	14.3	59.2	15.6	53.3
42.5 and under 47.5 cents.....	10.0	82.3	10.1	69.3	12.0	65.3
47.5 and under 52.5 cents.....	5.4	87.7	8.0	77.3	9.1	74.4
52.5 and under 57.5 cents.....	3.9	91.6	6.9	84.2	6.9	81.3
57.5 and under 62.5 cents.....	3.0	94.6	4.0	88.2	3.4	84.7
62.5 and under 67.5 cents.....	2.4	97.0	4.2	92.4	4.7	89.4
67.5 and under 72.5 cents.....	.9	97.9	2.1	94.5	3.8	93.2
72.5 and under 77.5 cents.....	.9	98.8	1.6	96.1	2.2	95.4
77.5 and under 85.0 cents.....	.8	99.6	1.9	98.0	1.7	97.1
85.0 and under 100.0 cents.....	.4	100.0	1.3	99.3	2.0	99.1
100.0 cents and over.....	(1)	100.0	.7	100.0	.9	100.0
Females:						
Under 12.5 cents.....	4.3	4.3	(1)	(1)	(1)	(1)
12.5 and under 17.5 cents.....	15.8	20.1	.2	.2	(1)	(1)
17.5 and under 22.5 cents.....	34.7	54.8	1.2	1.4	.4	.4
22.5 and under 27.5 cents.....	18.2	73.0	28.2	29.6	24.9	25.3
27.5 and under 32.5 cents.....	14.0	87.0	46.4	76.0	37.1	62.4
32.5 and under 37.5 cents.....	5.2	92.2	12.7	88.7	23.0	85.4
37.5 and under 42.5 cents.....	3.6	95.8	5.2	93.9	5.6	91.0
42.5 and under 47.5 cents.....	2.4	98.2	2.0	95.9	4.2	95.2
47.5 and under 52.5 cents.....	.6	98.8	2.0	97.9	2.6	97.8
52.5 and under 75.0 cents.....	1.2	100.0	1.9	99.8	2.0	99.8
75.0 cents and over.....			.2	100.0	.2	100.0

¹ Less than 1/10 of 1 percent.

Effect of President's Reemployment Agreement on Percentage Distribution by Region and Sex

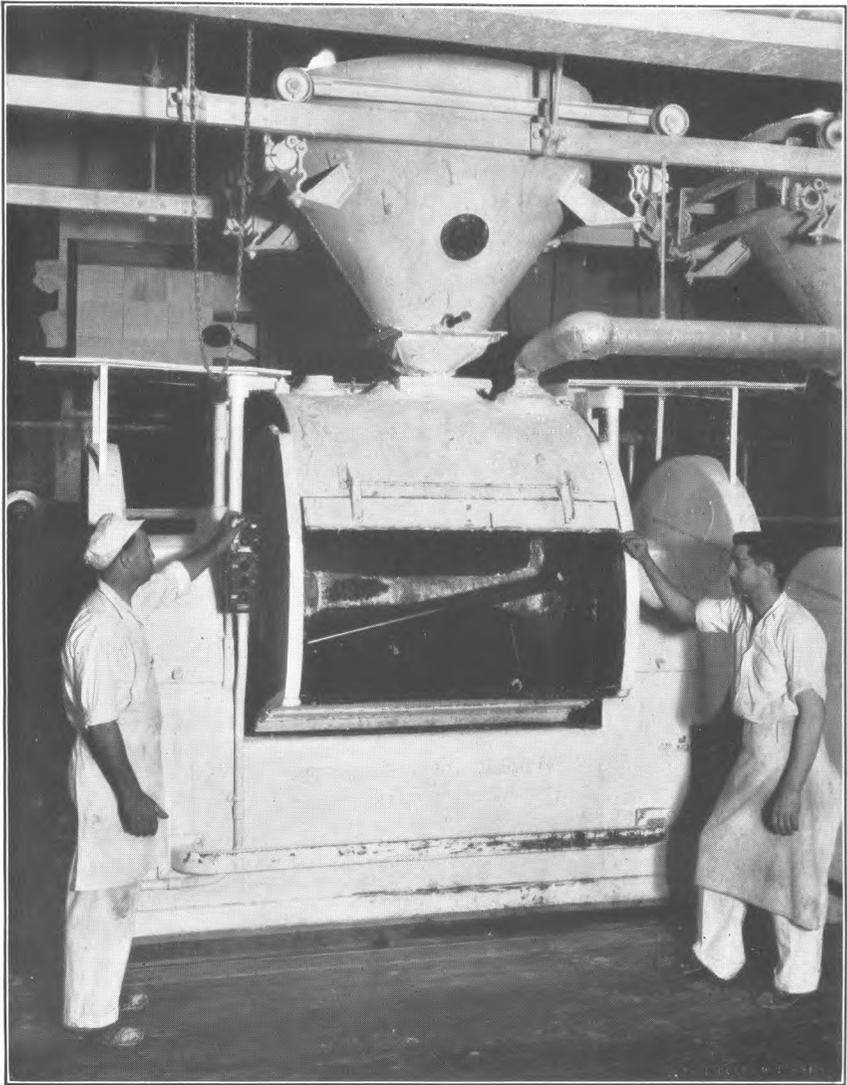
Before discussing the changes in the percentage distribution between March and September 1933, it is important to examine the wage provisions of the President's Reemployment Agreement and the substitute provisions applicable to the baking industry. First, there were

established certain minimum weekly rates for office, service, and sales employees, which varied according to the population of the city. Next, northern employers agreed not to pay bakery employees, who constitute the majority of the workers in the industry, "less than 40 cents per hour unless the hourly rate for the same class of work on July 15, 1929, was less than 40 cents per hour", and in that case not to pay "less than the hourly rate on July 15, 1929, and in no event less than 30 cents per hour." In the South, employers agreed not to pay bakery employees "less than 30 cents per hour." Finally, the agreement provided that there was to be no reduction in the "compensation for employment now in excess of the minimum wages hereby agreed to (notwithstanding that the hours worked in such employment may be hereby reduced) and to increase the pay for such employment by an equitable readjustment of all pay schedules." In view of the reduction of hours in the industry, this had the effect of increasing the hourly rate of those receiving more than the minimum wage.

For males in the North, the provisions of the President's Reemployment Agreement caused a decrease between March and September 1933 in the percentage of employees falling in virtually every wage class up to 52.5 cents per hour and an increase in every class above that figure. The number of workers receiving less than 52.5 cents declined from 66.0 percent in March to 53.6 percent in September. The percentages of males in the South decreased in the classes under 27.5 cents but increased in every class thereafter, the reduction of those earning less than 27.5 cents being from 29.1 percent in March to 8.9 percent in September.

The most striking changes in the distribution of earnings occurred among female employees. In the North, 42.2 percent of the female workers received less than 27.5 cents per hour in March, but only 6.7 percent earned less than that amount in September. Many of these employees had evidently been shifted to the group earning 27.5 and less than 32.5 cents, as the percentage in this class rose from 13.7 in March to 41.6 in September. In the South the number of female workers receiving less than 22.5 cents dropped from 54.8 percent in March to only 1.4 percent in September. In September 29.6 percent of the females were still earning less than 27.5 cents an hour, but the greatest number of workers (46.4 percent) were found in the class of 27.5 to 32.5 cents.

The President's Reemployment Agreement, as has been stated, provided more than one basic minimum. In the North 40 cents an hour was set as the general rule for all bakery employees, except those receiving less than this amount in 1929. This general 40-cent provision appears to have had some influence on the earnings of males but little effect on the earnings of females. For males in the North, the decline in the number earning less than 40 cents an hour was from 32.6 percent in March to 22.4 percent in September, but for females in the North the decrease was only from 79.1 percent in March to 75.4 percent in September. In the South, the minimum for all bakery employees was set at 30 cents per hour. As a result, the percentage of males in this area earning less than 30 cents an hour declined from 37.8 percent in March to 14.7 percent in September. At the same time, the percentage of females in the South earning less than 30 cents an hour decreased from 82.6 percent in March to 52.2 percent in



Courtesy of Charles Schneider Baking Co.

PLATE 1.—FLOUR SCALE AND FLOUR CONTROL, CONNECTING WITH STORAGE BIN ABOVE, AND DOUGH MIXER WITH OPERATORS.



PLATE 2.—GROUP OF OPERATIONS, SHOWING BENCH WORK, DIVIDING, SCALING, ROUNDING, AND MOLDING.

September. The President's Reemployment Agreement was not mandatory, so that these percentages reflect a combination of several factors. Compliance with the terms of the agreement was certainly not general,³⁷ some firms failed to adhere to the agreement, and in the North the full 40-cent rate was found to be inapplicable.

Effect of Code on Percentage Distribution by Region and Sex

The wage provisions of the code followed the general principles of the President's Reemployment Agreement. Minimum weekly rates, varying with the size of the city, were established by the code for office and store employees and salesmen. As for "other employees", who comprise the majority of the workers, the code stipulated that none of these "shall be paid less than at the rate of 40 cents per hour, except icers, wrappers, and cleaners, who shall be paid not less than 80 percent of said rate" (i. e., 32 cents per hour). Moreover, there was established a differential in the South of \$1 less per week for the salaried group and of 5 cents less per hour for "other employees." Lower wage rates were also allowed for persons with limited earning capacity on account of "age, physical or mental handicap, or other infirmity", who could be employed on light jobs.

Wage rates above the minimum were raised by the following provision:

No employee whose normal full-time weekly hours averaged over the four (4) weeks ending June 10, 1933, are as a result of the adoption of this code reduced by sixteen and two-thirds percent (16 $\frac{2}{3}$ %) or less shall have his or her full-time weekly earnings reduced; and any employee whose said normal full-time weekly hours are to be reduced by more than sixteen and two-thirds percent (16 $\frac{2}{3}$ %) shall have his or her hourly rate of pay increased by at least twenty percent (20%). The above shall not apply to any employee whose earnings averaged over the aforementioned period were more than thirty-five dollars (\$35.00) per week.

Employees whose earnings averaged over the aforementioned period were more than thirty-five dollars (\$35.00) per week and whose hours are reduced as a result of the adoption of this code shall have their wage rates equitably readjusted in order to maintain fair differentials * * *. In no case shall hourly rates of pay be reduced.

In consequence of these provisions, there were further wage increases between September 1933 and December 1934. The percentages of employees falling in the lower wage classes shrank again, and the percentages of those in the upper wage classes were further increased. Among the males in the North, the percentages decreased in every class up to 57.5 cents per hour, with the exception of the classes between 37.5 and 47.5 cents, where a slight concentration was brought about by the provision of a 40-cent minimum. As a result, the number of male workers earning less than 57.5 cents dropped from 64.1 percent in September 1933 to 54.0 percent in December 1934. In every class above 57.5 cents per hour, there was a larger percentage of the workers in December 1934 than in September 1933. As for males in the South, the percentages decreased in each class up to 32.5 cents and increased in most of the classes thereafter. The number receiving

³⁷ This survey has developed clearly the technical difficulty of enforcing a provision such as that in the President's Reemployment Agreement "to pay not less than the hourly rate on July 15, 1929" if that rate had been more than 30 cents but less than 40 cents an hour. The difficulty is greatly increased when this procedure is applied to the standard of individual establishments. It has already been pointed out that many small bakers had no records in January and February 1935 from which hourly earnings in December 1934 could be computed. It was even more difficult to secure a sample for such comparatively recent periods as March and September 1933. Hence in a very large number of cases it would be quite impossible to secure 1929 earnings.

less than 32.5 cents dropped from 28.5 percent in September 1933 to 12.0 percent in December 1934. Many of these employees were apparently lifted to the group earning 32.5 but less than 37.5 cents an hour, as the percentage of Southern workers in this class rose from 16.4 in September 1933 to 25.7 in December 1934.

The percentages of female workers both in the North and South also declined in every class up to 32.5 cents per hour, rising in nearly every class above that figure. Between September 1933 and December 1934, the number of female employees earning less than 32.5 cents dropped in the North from 48.3 percent to 23.2 percent and in the South from 76.0 percent to 62.4 percent. It should also be mentioned that in both the North and South there was a considerable increase in the percentage of employees falling in the class embracing the minimum set by the code. Thus, in the North, where the minimum was 40 cents per hour, the number of female workers earning 37.5 and under 42.5 cents rose from 11.7 percent in September 1933 to 24.5 percent in December 1934, and, in the South, where the minimum was 35 cents per hour, the number of female employees receiving 32.5 and under 37.5 cents increased from 12.7 percent in September 1933 to 23.0 percent in December 1934.

In spite of the 40 cents per hour minimum for most employees in the North, there were still 11.5 percent of the males and 64.3 percent of the females receiving less than that amount in December 1934. It must be noted that 6.0 percent of the total number of male employees and 40.0 percent of the total number of females received less than 40 cents because they were in the three trades having a minimum hourly rate of 32 cents. On the other hand, the remaining persons were either handicapped employees or those who worked in establishments not complying with the code.

In December 1934, with a minimum rate for most workers of 35 cents per hour, 21.5 percent of the Southern males and 71.8 percent of the Southern females earned less than that amount. Eight percent of these males and 40.0 percent of these females belonged to the three occupational classes with a minimum hourly rate of 28 cents.

Differentials in Averages by Broad Occupational Groupings

Neither the President's Reemployment Agreement nor the code contained any provision establishing or maintaining specific differentials among the various occupations in the industry. As previously indicated, however, provision was made for the readjustment of the hourly rates above the minimum, in order to compensate for the reduction of hours by increases in the average hourly earnings, thus tending to maintain the weekly earnings of the higher-paid workers.

A concise picture of the effect of the increases in average hourly earnings on the maintenance of differentials may be obtained from the figures covering the broad occupational groupings, which are shown in table 14. It will be seen that increases occurred in each of these groupings between March and September 1933, as well as between the latter month and December 1934. In general, among males engaged in direct labor, there existed during each of the periods covered only a slight differential in the average hourly earnings between workers in occupations customarily considered unskilled and semiskilled. In both the North and the South, there was in all

periods a substantial differential between the unskilled and skilled employees. The absolute amount of this differential in cents per hour, which was somewhat greater in the North than in the South, increased from March 1933 to December 1934, although under the President's Reemployment Agreement it had at first decreased slightly in the North. In the North, the differential between the unskilled and semiskilled varied only from about 1 to 2 cents, whereas the spread between the unskilled and skilled was 18.5 cents in March 1933, 17.9 cents in September 1933, and 20.4 cents in December 1934. In the South, the differential between the unskilled and semiskilled was less than 1 cent during each period, and that between the unskilled and skilled amounted to 13.6 cents in March 1933, 13.7 cents in September 1933, and 14.2 cents in December 1934.

TABLE 14.—Average hourly earnings by broad occupational groupings as to region and sex

Region, sex, and broad occupational grouping	Average hourly earnings			Percentage of change		
	March 1933	September 1933	December 1934	March to September 1933	September 1933 to December 1934	March 1933 to December 1934
<i>North</i>						
Males:						
Direct labor:						
Skilled.....	\$0.559	\$0.609	\$0.677	+8.9	+11.2	+21.1
Semiskilled.....	.394	.439	.489	+11.4	+11.4	+24.1
Unskilled.....	.374	.430	.473	+15.0	+10.0	+26.5
Indirect labor:						
Driver-salesmen.....	.492	.545	.601	+10.8	+10.3	+22.2
Other.....	.512	.562	.596	+9.8	+6.0	+16.4
Total.....	.491	.540	.590	+10.0	+9.3	+20.2
Females:						
Direct labor: Unskilled.....	.266	.319	.359	+19.9	+12.5	+35.0
Indirect labor: Other.....	.348	.387	.413	+11.2	+6.7	+18.7
Total.....	.321	.364	.392	+13.4	+7.7	+22.1
<i>South</i>						
Males:						
Direct labor:						
Skilled.....	.394	.475	.515	+20.6	+8.4	+30.7
Semiskilled.....	.262	.339	.376	+29.4	+10.9	+43.5
Unskilled.....	.258	.338	.373	+31.0	+10.4	+44.6
Indirect labor:						
Driver-salesmen.....	.378	.475	.477	+25.7	+0.4	+26.2
Other.....	.369	.441	.473	+19.5	+7.3	+28.2
Total.....	.360	.436	.462	+21.1	+6.0	+28.3
Females:						
Direct labor: Unskilled.....	.198	.295	.304	+49.0	+3.1	+53.5
Indirect labor: Other.....	.255	.318	.337	+24.7	+6.0	+32.2
Total.....	.240	.311	.325	+29.6	+4.5	+35.4

The average hourly earnings of driver-salesmen more closely approximated those of skilled males engaged in direct labor than those of semiskilled males. In the North, the differential in favor of skilled males in direct labor over driver-salesmen amounted to 6.7 cents in March 1933, 6.4 cents in September 1933, and 7.6 cents in December 1934. In the South, however, where the average hourly earnings of skilled males engaged in direct labor were much lower than in the North, the differential between the hourly earnings of this group

and those of driver-salesmen was smaller. Driver-salesmen earned 1.6 cents less than skilled males engaged in direct labor in March 1933 and 3.8 cents less in December 1934. In September 1933, however, they earned exactly the same amount per hour as skilled males engaged in direct labor. Nearly all of the increase in the average hourly earnings of driver-salesmen in the South during the entire period occurred between March and September 1933.

Owing to the wide diversity of the occupations included in the "other" grouping under indirect labor for the males both in the North and South, no attempt was made here to account for the differentials between it and the other groupings. Likewise, no differentials have been computed between the two groupings listed under females both in the North and South.

Effectiveness of President's Reemployment Agreement and Code Minima as Shown by Data on Broad Occupational Groupings

The minimum rates of 40 and 30 cents per hour, which were set up in the President's Reemployment Agreement, applied for the most part to employees engaged in direct labor. The percentages of workers in these groupings receiving less than 40 and 30 cents, respectively, in March and September 1933 are shown in table 15.

TABLE 15.—Percentages of workers in groupings receiving less than 40 and 30 cents, respectively, in March and September 1933

Region, sex, and broad occupational grouping	March 1933		September 1933	
	Less than 40 cents	Less than 30 cents	Less than 40 cents	Less than 30 cents
<i>North</i>				
Males:				
Skilled.....	15.5	3.7	8.5	0.5
Semiskilled.....	54.4	19.8	37.6	5.2
Unskilled.....	63.7	27.3	46.7	3.9
Females: Unskilled.....	95.0	71.0	93.2	30.9
<i>South</i>				
Males:				
Skilled.....	54.5	26.8	36.5	7.7
Semiskilled.....	90.6	68.1	78.2	25.6
Unskilled.....	92.5	73.0	82.2	25.6
Females: Unskilled.....	98.9	98.9	100.0	52.7

Although on the whole the percentages of employees receiving less than the above rates were considerably smaller in September than in March, there was still a large proportion in those wage classes. In other words, the President's Reemployment Agreement did not provide an effective minimum wage in the baking industry.

The minimum hourly rates mentioned in the code also applied largely to workers engaged in direct labor. In the North, it will be remembered, the rate was 40 cents for most of the occupations, with 32 cents for icers, wrappers, and cleaners. The percentages of male employees in the North receiving less than 40 cents decreased between September 1933 and December 1934 from 8.5 to 2.2 for skilled, from 37.6 to 14.1 for semiskilled, and from 46.7 to 25.9 for unskilled workers. About two-thirds of the unskilled group receiving less than 40 cents consisted of icers, wrappers, and cleaners. These three occupations accounted

for all of the unskilled females, which explains the fact that 81.9 percent of all the females received less than 40 cents an hour in December 1934, the percentage earning less than that in September 1933 being 93.2.

In the South, the code provided a rate of 35 cents for most of the occupations and of 28 cents for icers, wrappers, and cleaners. The decrease in the percentages of workers in this region earning less than 35 cents between September 1933 and December 1934 was from 22.7 to 6.6 for skilled, from 62.0 to 27.2 for semiskilled, and from 70.1 to 37.7 for unskilled employees. About two-thirds of the unskilled males were icers, wrappers, and cleaners. For unskilled females, all of whom belonged to the three occupations, there was an increase in the percentage receiving less than 35 cents from 19.1 in September 1933 to 21.9 in December 1934.

Changes in Averages by Occupational Classes

Table 16 presents for individual occupations or small occupational groupings the average hourly earnings for March and September 1933 and December 1934, as well as the percentages of change between these months. It will be noted that increases, both absolute and relative, are shown for each occupational class, although the increases varied considerably.

Among the males engaged in direct labor in the North, there were 8 individual occupations out of the 14 for which data are given, that showed an increase of more than 10 cents in average earnings per hour over the entire period. Five of the eight occupations were skilled, one was semiskilled, and two were unskilled. The two most highly paid occupations showed the largest absolute gains, namely, ovenmen, 13.9 cents, and mixers, 13.8 cents. The next greatest increase (12.8 cents) was reported for pan greasers, which is one of the low-paid occupations. As for the six occupations with increases of less than 10 cents per hour, one was skilled, three were semiskilled, and two were unskilled. The smallest gain during the period (7.6 cents) is shown for cake wrappers and packers, another one of the low-paid occupations.

As for males employed in direct labor in the South, out of the five individual occupations for which data are available, all but one reported a gain of over 10 cents per hour during the entire period. The earnings of ovenmen showed the largest increase (14.1 cents). The occupation showing the smallest rise (9.3 cents) was that of general helpers.

Aside from the "miscellaneous" groupings, only two of the nine individual occupations or small occupational groupings shown for males employed in indirect labor in the North received increases of over 10 cents in average hourly earnings over the interval from March 1933 to December 1934. These two occupations, driver-salesmen and skilled supervisors, were also among the higher paid of the indirect labor occupations. In the South, separate figures are given for only one indirect labor occupation, that of driver-salesmen, and these workers received an increase over the entire period of 9.9 cents an hour.

Among females in the North, statistics are available for six individual occupations. The increases in these occupations between March 1933 and December 1934 ranged from 3.2 cents for store clerks to 9.6 cents for cake wrappers and packers. For indirect female labor in the South, separate figures are given only for store clerks, the gain for workers in this class amounting to 6.6 cents.

TABLE 16.—Average hourly earnings by occupational classes as to region and sex

Region, sex, and occupational class	Average hourly earnings			Percentage of change		
	March 1933	September 1933	December 1934	March to September 1933	September 1933 to December 1934	March 1933 to December 1934
<i>Males—North</i>						
Direct labor:						
Skilled:						
Bench hands or hand bakers.....	\$0. 563	\$0. 601	\$0. 677	+6. 7	+12. 6	+20. 2
Cake makers.....	. 551	. 598	. 647	+8. 5	+8. 2	+17. 4
Dividers or scalers and rounders.....	. 543	. 577	. 654	+6. 3	+13. 3	+20. 4
Mixers.....	. 587	. 656	. 725	+11. 8	+10. 5	+23. 5
Molders.....	. 487	. 534	. 605	+9. 7	+13. 3	+24. 2
Ovenmen.....	. 599	. 662	. 738	+10. 5	+11. 5	+23. 2
Miscellaneous, skilled.....	. 501	. 533	. 601	+6. 4	+12. 8	+20. 0
Total.....	. 559	. 609	. 677	+8. 9	+11. 2	+21. 1
Semiskilled:						
Bench hands' or hand bakers' helpers.....	. 413	. 453	. 501	+9. 7	+10. 6	+21. 3
General helpers.....	. 364	. 419	. 458	+15. 1	+9. 3	+25. 8
Mixers' helpers.....	. 388	. 434	. 484	+11. 9	+11. 5	+24. 7
Ovenmen's helpers.....	. 403	. 449	. 511	+11. 4	+13. 8	+26. 8
Miscellaneous, semiskilled.....	. 434	. 458	. 512	+5. 5	+11. 8	+18. 0
Total.....	. 394	. 439	. 489	+11. 4	+11. 4	+24. 1
Unskilled:						
Bread packers.....	. 404	. 455	. 495	+12. 6	+8. 8	+22. 5
Bread wrappers, automatic.....	. 350	. 412	. 457	+17. 7	+10. 9	+30. 6
Cake wrappers and packers.....	. 384	. 425	. 460	+10. 7	+8. 2	+19. 8
Pan greasers.....	. 333	. 403	. 461	+21. 0	+14. 4	+38. 4
Miscellaneous, unskilled.....	. 412	. 452	. 492	+9. 7	+8. 8	+19. 4
Total.....	. 374	. 430	. 473	+15. 0	+10. 0	+26. 5
Indirect labor:						
Driver-salesmen.....	. 492	. 545	. 601	+10. 8	+10. 3	+22. 2
Other:						
Auditors, bookkeepers, etc.....	. 701	. 762	. 795	+8. 7	+4. 3	+13. 4
Chauffeurs and drivers.....	. 483	. 525	. 559	+8. 7	+6. 5	+15. 7
Laborers.....	. 366	. 428	. 454	+16. 9	+6. 1	+24. 0
Maintenance and repair, skilled.....	. 548	. 618	. 639	+12. 8	+3. 4	+16. 6
Maintenance and repair, semiskilled.....	. 394	. 459	. 476	+16. 5	+3. 7	+20. 8
Office clerks.....	. 463	. 502	. 547	+8. 4	+9. 0	+18. 1
Service, unskilled.....	. 353	. 407	. 436	+15. 3	+7. 1	+23. 5
Supervisory, skilled.....	. 706	. 759	. 811	+7. 5	+6. 9	+14. 9
Miscellaneous, skilled.....	. 589	. 640	. 684	+8. 7	+6. 9	+16. 1
Miscellaneous, semiskilled.....	. 421	. 465	. 514	+10. 5	+10. 5	+22. 1
Miscellaneous, unskilled.....	. 364	. 407	. 437	+11. 8	+7. 4	+20. 1
Total.....	. 512	. 562	. 596	+9. 8	+6. 0	+16. 4
<i>Females—North</i>						
Direct labor:						
Unskilled:						
Bread wrappers, hand.....	. 272	. 341	. 350	+25. 4	+2. 6	+28. 7
Cake finishers.....	. 270	. 325	. 362	+20. 4	+11. 4	+34. 1
Cake wrappers and packers.....	. 263	. 314	. 359	+19. 4	+14. 3	+36. 5
Total.....	. 266	. 319	. 359	+19. 9	+12. 5	+35. 0
Indirect labor:						
Other:						
Office clerks.....	. 388	. 431	. 458	+11. 1	+6. 3	+18. 0
Stenographers, typists, telephone operators, etc.....	. 418	. 462	. 486	+10. 5	+5. 2	+16. 3
Store clerks.....	. 317	. 340	. 349	+7. 3	+2. 6	+10. 1
Miscellaneous.....	. 315	. 363	. 412	+15. 2	+13. 5	+30. 8
Total.....	. 348	. 387	. 413	+11. 2	+6. 7	+18. 7

TABLE 16.—Average hourly earnings by occupational classes as to region and sex—Continued

Region, sex, and occupational class	Average hourly earnings			Percentage of change		
	March 1933	September 1933	December 1934	March to September 1933	September 1933 to December 1934	March 1933 to December 1934
<i>Males—South</i>						
Direct labor:						
Skilled:						
Bench hands or hand bakers.....	\$0.344	\$0.392	\$0.460	+14.0	+17.3	+33.7
Ovenmen.....	.409	.495	.550	+21.0	+11.1	+34.5
Miscellaneous, skilled.....	.412	.484	.527	+17.5	+8.9	+27.9
Total.....	.394	.463	.515	+17.5	+11.2	+30.7
Semiskilled:						
General helpers.....	.255	.329	.348	+29.0	+5.8	+36.5
Ovenmen's helpers.....	.278	.342	.386	+23.0	+12.9	+38.8
Miscellaneous, semiskilled.....	.251	.345	.387	+37.5	+12.2	+54.2
Total.....	.262	.339	.376	+29.4	+10.9	+43.5
Unskilled:						
Bread wrappers, automatic.....	.262	.337	.376	+28.6	+11.6	+43.5
Miscellaneous, unskilled.....	.253	.339	.370	+34.0	+9.1	+46.2
Total.....	.258	.338	.373	+31.0	+10.4	+44.6
Indirect labor:						
Driver-salesmen.....	.378	.475	.477	+25.7	+4	+26.2
Other.....	.369	.441	.473	+19.5	+7.3	+28.2
<i>Females—South</i>						
Direct labor: Unskilled.....	.198	.295	.304	+49.0	+3.1	+53.5
Indirect labor:						
Other:						
Store clerks.....	.220	.274	.286	+24.5	+4.4	+30.0
Miscellaneous.....	.273	.342	.365	+25.3	+6.7	+33.7
Total.....	.255	.318	.337	+24.7	+6.0	+32.2

Regional Differentials in Averages by Occupations

The existing differentials between northern and southern wages were recognized by the President's Reemployment Agreement to the extent of a spread equal to 10 cents per hour at the minimum rate. The code cut this to 5 cents. It follows, therefore, that a considerable difference in wages for similar occupations in the North and the South would be found in the survey. The average of all male occupations showed that northern wages were 13.1 cents an hour higher than southern wages in March 1933, 10.4 cents higher in September 1933, and 12.8 cents higher in December 1934.³⁸ Despite the narrower minimum-wage differential allowed by the code, the spread in average hourly earnings for all workers increased between September 1933 and December 1934. In fact, the regional wage differential in December 1934 was nearly as great as before the President's Reemployment Agreement.

The differentials between North and South by broad occupational groupings show some variations from the above averages, although each occupational grouping in the North shows higher earnings than

³⁸ See table 11.

in the South.³⁹ The greatest differential was between skilled male employees engaged in direct labor, where the difference in favor of the northern workers amounted to 16.5 cents in March 1933, 13.4 cents in September 1933, and 16.2 cents in December 1934. The differential between semiskilled male employees engaged in direct labor was somewhat smaller, the figures being 13.2 cents in March 1933, 10.0 cents in September 1933, and 11.3 cents in December 1934. A still smaller difference in earnings is shown for unskilled male workers engaged in direct labor. The margin in favor of northern workers in this class amounted to 11.6 cents in March 1933, 9.2 cents in September 1933, and 10.0 cents in December 1934. In each of these groupings there was a narrowing of the differential in the second period and an increase during the last period, although the differential in the last period was still below that shown in the first period.

It is interesting to note the extent of the differential between the North and South for the several individual occupations of males for which comparable data are available.⁴⁰ For ovenmen, the highest-paid occupation, the differential was 19.0 cents in March 1933, 16.7 cents in September 1933, and 18.8 cents in December 1934. Among bench hands or hand bakers, another skilled occupation, the differences amounted to 21.9 cents in March 1933, 20.9 in September 1933, and 21.7 in December 1934. Smaller differentials were reported for two semiskilled occupations, namely, ovenmen's helpers, and general helpers. The differentials in these occupations were, respectively, 12.5 and 10.9 cents in March 1933, 10.7 and 9.0 cents in September 1933, and 12.5 and 11.0 cents in December 1934. The differential was still smaller in one unskilled occupation, automatic bread wrappers, the figures being 8.8 cents in March 1933, 7.5 cents in September 1933, and 8.1 cents in December 1934. Each of these occupations shows a narrowing of the differential between March and September 1933 and a widening of the spread between September 1933 and December 1934.

The North-South differential for driver-salesmen was 11.4 cents in March 1933. Owing to an increase in average hourly earnings between March and September 1933 of 9.7 cents in the South, as compared with 5.3 cents in the North, however, the differential was reduced to 7.0 cents in September. Between September 1933 and December 1934, the gain in average hourly earnings was 5.6 cents in the North and only 0.2 cent in the South, with the result that the differential in December 1934 was 12.4 cents, or 1 cent higher than in March 1933. For "other" employees engaged in indirect labor, the differential amounted to 14.3 cents in March 1933, 12.1 cents in September 1933, and 12.3 cents in December 1934.

The regional differences in average hourly earnings of female workers followed much the same general course, although the spread in favor of northern workers was less than among the male employees, amounting to 8.1 cents in March 1933, 5.3 cents in September 1933, and 6.7 cents in December 1934. For female unskilled employees engaged in direct labor, the difference was 6.8 cents in March 1933, 2.4 cents in September 1933, and 5.5 cents in December 1934. The narrowing of the differential to 2.4 cents in September was due to an advance of 9.7 cents per hour in the southern wages, as compared

³⁹ See table 14.

⁴⁰ See table 16.

with a gain of only 5.3 cents in the northern wages. Between September 1933 and December 1934, however, the increase in average earnings per hour was only 0.9 cent in the South and 4.0 cents in the North, thus bringing the differential in December 1934 back to a figure not much below that in March 1933. Among the "other" employees engaged in indirect labor, the differential amounted to 9.3 cents in March 1933, 6.9 cents in September 1933, and 7.6 cents in December 1934. For one of these occupations, namely, store clerks, there is comparable data available, indicating differentials of 9.7 cents in March 1933, 6.6 cents in September 1933, and 6.3 cents in December 1934.

Sex Differentials in Averages by Occupations

Neither the President's Reemployment Agreement nor the code provided for any differential between males and females when engaged in similar work. In fact, the principle of "equal pay for equal work" was specifically recognized in the code, when it declared that "male and female employees customarily performing substantially the same duties or doing the same work shall receive the same rates of pay." The only exception to this was "that when male employees perform work customarily done by female employees only during hours when female labor is prohibited by applicable law, it shall not be required that female employees doing such work at other times be paid at the same rate as such male employees."

The objectives of these provisions, however, were not fully achieved, since comparisons of male and female wages for occupations involving approximately the same degrees of skill indicate that the average hourly earnings of males considerably exceed those of females.⁴¹ For unskilled workers engaged in direct labor, the difference in northern bakeries amounted to 10.8 cents in March 1933, 11.1 in September 1933, and 11.4 in December 1934, and in the South it was 6.0 in March 1933, 4.3 in September 1933, and 6.9 in December 1934. A greater spread was reported for some occupations. The hourly earnings of male cake wrappers and packers (unskilled direct labor) in the Northern States, for example, exceeded those of female workers by 12.1 cents in March 1933, 11.1 in September 1933, and 10.1 in December 1934. For office clerks ("other" indirect labor), the earnings of male workers in the North exceeded those of females by 7.5 cents in March 1933, 7.1 in September 1933, and 8.9 in December 1934.

Average Hourly Earnings and Size of City

On the whole, the average hourly earnings of employees in bakeries varied directly with the size of the city. This is illustrated by table 17, which shows the average earnings per hour and percentages of change for the three pay-roll periods according to size of city.

In March 1933, male employees in the northern cities with a population of from 50,000 to 250,000 averaged 2.2 cents per hour more than those in the smaller cities and 8.2 less than those in the larger cities. In September 1933, this relationship was changed, and the smaller cities (under 50,000 population), due to a larger gain in average hourly earnings, were paying 0.7 cents more than the middle-sized group. In the larger cities (250,000 and over), the earnings were 9.1 cents higher than the level prevailing in cities of from 50,000 to

⁴¹ See tables 14 and 16.

250,000. By December 1934 the situation was again altered, and due to a smaller increase in average earnings per hour, the smaller cities paid 1.5 cents less than the middle group. In the meantime, the larger cities increased their lead over the middle group to 9.3 cents.

TABLE 17.—Average hourly earnings by size of city as to region and sex

Region, sex, and size of city	Average hourly earnings			Percentage of change		
	March 1933	September 1933	December 1934	March to September 1933	September 1933 to December 1934	March 1933 to December 1934
<i>North</i>						
Males:						
250,000 and over.....	\$0.507	\$0.557	\$0.608	+9.9	+9.2	+19.9
50,000 and under 250,000.....	.425	.466	.515	+9.6	+10.5	+21.2
Under 50,000.....	.403	.473	.500	+17.4	+5.7	+24.1
Total.....	.491	.540	.590	+10.0	+9.3	+20.2
Females:						
250,000 and over.....	.333	.374	.399	+12.3	+6.7	+19.
50,000 and under 250,000.....	.278	.317	.364	+14.0	+14.8	+30.
Under 50,000.....	(¹)	(¹)	(¹)	(¹)	(¹)	(¹)
Total.....	.321	.364	.392	+13.4	+7.7	+22.1
<i>South</i>						
Males:						
250,000 and over.....	.358	.433	.460	+20.9	+6.2	+28.5
50,000 and under 250,000.....	.365	.445	.472	+21.9	+6.1	+29.3
Under 50,000.....	.325	.395	.417	+21.5	+5.6	+28.3
Total.....	.360	.436	.462	+21.1	+6.0	+28.3
Females:						
250,000 and over.....	.259	.317	.338	+22.4	+6.6	+30.5
50,000 and under 250,000.....	.223	.304	.314	+36.3	+3.3	+40.8
Under 50,000.....	(¹)	(¹)	(¹)	(¹)	(¹)	(¹)
Total.....	.240	.311	.325	+29.6	+4.5	+35.4

¹ Not enough workers to justify the computation of an average.

For female employees in the North, the average hourly earnings in cities of 250,000 and over were 5.5 cents higher than in cities of 50,000 and under 250,000 in March 1933, 5.7 higher in September 1933, and 3.5 higher in December 1934. No figures were computed for cities under 50,000, as comparatively few women workers were employed there.

It is interesting to note that in the South the earnings of male workers in cities of 50,000 to 250,000 were higher than in cities with a population of 250,000 and over or in cities of less than 50,000. Compared with the larger cities, the hourly earnings in the medium-sized cities were 0.7 cent higher in March 1933 and 1.2 cents higher in both September 1933 and December 1934. In the cities with a population of less than 50,000, the hourly earnings of male employees were 4.0 cents less than in the medium-sized cities in March 1933, 5.0 less in September 1933, and 5.5 less in December 1934.

By contrast, the earnings of females in the South were highest in cities with a population of 250,000 and over. In comparison with cities of 50,000 to 250,000, the hourly earnings of female workers in the large cities averaged 3.6 cents higher in March 1933, 1.3 higher

in September 1933, and 2.4 higher in December 1934. As in the North, averages were not computed for females in cities under 50,000.

The most striking fact revealed by this analysis is that in the North there is a clear-cut break between the largest cities and the cities of less than 250,000. In the South, the break comes between cities of more than 50,000 and the smaller cities.

Average Hourly Earnings in Union and Nonunion Shops

In the North, wages in crafts covered by the Bakery and Confectionery Workers' International Union were higher in union than in nonunion shops. This is clearly indicated by table 18, in which the average hourly earnings of male workers engaged in direct labor are classified by union and nonunion shops and according to skill.⁴² It should be remembered that union membership is here virtually limited to the skilled and semiskilled workers.

TABLE 18.—Average hourly earnings of male employees in North engaged in direct labor, by union and nonunion shops and skill

Type of shop and skill	Average hourly earnings			Percentage of change		
	March 1933	September 1933	December 1934	March to September 1933	September 1933 to December 1934	March 1933 to December 1934
Union shops:						
Skilled.....	\$0.746	\$0.746	\$0.847	(¹)	+13.5	+13.5
Semiskilled.....	.443	.465	.537	+5.0	+15.5	+21.2
Unskilled.....	.382	.424	.462	+11.0	+9.0	+20.9
Total.....	.599	.612	.687	+2.2	+12.3	+14.7
Nonunion shops:						
Skilled.....	.486	.554	.608	+14.0	+9.7	+25.1
Semiskilled.....	.379	.432	.477	+14.0	+10.4	+25.9
Unskilled.....	.373	.432	.477	+15.8	+10.4	+27.9
Total.....	.432	.489	.537	+13.2	+9.8	+24.3

¹ No change.

From this table it will be seen that the earnings of the unskilled (unorganized) workers in union shops in March 1933 were only slightly higher than in nonunion shops, and that in both September 1933 and December 1934 they were actually less than in nonunion establishments. In striking contrast, the differential between union and nonunion shops for the skilled workers (organized) amounted to 26.0 cents in March 1933, 19.2 cents in September 1933, and 23.9 cents in December 1934. The table also brings out the fact that the nonunion shops pay substantially the same rates for both the semiskilled and unskilled occupations. In union shops, on the other hand, semiskilled workers, who are covered by union membership, do receive more than the unskilled. Because of this difference, the hourly earnings of semiskilled workers in union shops were 6.4 cents higher than in nonunion shops in March 1933, 3.3 cents higher in September 1933, and 6.0 cents higher in December 1934.

⁴² See pp. 23 and 25. Very few female employees are members of the union, and as a result they have been omitted from this analysis. Likewise, owing to the small number of bakeries with union contracts in the South, no such tabulation was made for that region.

The trend of earnings from March 1933 to December 1934 in union shops differed conspicuously from the trend in unorganized establishments. In the nonunion shops, as already stated, there was virtually no difference in the average hourly earnings of workers in occupations classed as unskilled and semiskilled in any period studied. The hourly earnings of the skilled workers averaged only 11.3 cents more than those of the unskilled workers in March 1933. From March 1933 to September 1933, the earnings of each of the three groups in nonunion shops advanced from 14 to 16 percent. Again from September 1933 to December 1934, there was about a 10 percent advance for all groups.

In union shops, on the other hand, the average hourly earnings for semiskilled workers in March 1933 were 6.1 cents per hour more than for unskilled, and for skilled they were 36.4 cents an hour more than for unskilled. Under the President's Reemployment Agreement, unskilled wages in union shops advanced 11 percent, semiskilled wages advanced 5 percent, and the earnings of skilled did not increase at all. From September 1933 to December 1934, the hourly earnings of semiskilled workers advanced 15.5 percent, as against an increase of 13.5 percent for skilled workers and a gain of 9.9 percent for unskilled workers.

Influence of Mechanization on Average Hourly Earnings

In general, the greater the degree of mechanization in bakeries, the higher were their average hourly earnings.⁴³ This fact is illustrated by table 19.

Hourly earnings of male employees in highly mechanized bakeries in the North averaged 3.5 cents more than in handicraft shops in March 1933, 8.3 cents more in September 1933, and 10.4 cents more in December 1934. In the South, the differential in favor of male workers of the mechanical establishments over those employed by handicraft bakeries amounted to 0.6 cents in March 1933, 6.0 cents in September 1933, and 4.7 cents in December 1934. It will be seen that in both regions there was a marked increase in the differential between March and September 1933. This may be explained by the fact that, due to the establishment of the shorter workweek in mechanical as compared with handicraft shops under the President's Reemployment Agreement⁴⁴ and the code, the gain in average hourly earnings during this period in mechanical bakeries was much greater than in handicraft bakeries. For females in either North or South, no figures on differentials are available, as the number of females was too small to compute any average hourly earnings for handicraft shops.

In semihandicraft shops in the North, the average hourly earnings of male workers were below those of mechanical but above those of handicraft bakeries in each of the three periods. This was also true in the South in September 1933, but in the other 2 months the average hourly earnings of male workers in handicraft shops exceeded those in semihandicraft establishments by a narrow margin, and, as in the North, the earnings in both the semihandicraft and handicraft shops were less than in mechanized shops. The average hourly earnings for

⁴³ In comparing average hourly earnings in bakeries according to their degree of mechanization, it should be remembered that the occupational set-up in each type is different.

⁴⁴ See p. 25.

females in the North were less in semihandicraft than in mechanical bakeries in all 3 months.

TABLE 19.—Average hourly earnings in bakeries classified by degree of mechanization as to region and sex

Region, sex, and degree of mechanization	Average hourly earnings			Percentage of change		
	March 1933	September 1933	December 1934	March to September 1933	September 1933 to December 1934	March 1933 to December 1934
<i>North</i>						
Males:						
Handicraft.....	\$0.457	\$0.460	\$0.499	+0.7	+8.5	+9.2
Semihandicraft.....	.485	.512	.562	+5.6	+9.8	+15.9
Mechanical.....	.492	.543	.603	+10.4	+11.1	+22.6
Total.....	.491	.540	.590	+10.0	+9.3	+20.2
Females:						
Handicraft.....	(¹)	(¹)	(¹)	(¹)	(¹)	(¹)
Semihandicraft.....	.310	.339	.372	+9.4	+9.7	+20.0
Mechanical.....	.324	.370	.397	+14.2	+7.3	+22.5
Total.....	.321	.364	.392	+13.4	+7.7	+22.1
<i>South</i>						
Males:						
Handicraft.....	.354	.380	.420	+7.3	+10.5	+18.6
Semihandicraft.....	.342	.392	.414	+14.6	+5.6	+21.1
Mechanical.....	.360	.440	.467	+22.2	+6.1	+29.7
Total.....	.360	.436	.462	+21.1	+6.0	+28.3
Females:						
Handicraft.....	(¹)	(¹)	(¹)	(¹)	(¹)	(¹)
Semihandicraft.....	(¹)	(¹)	(¹)	(¹)	(¹)	(¹)
Mechanical.....	.244	.319	.332	+30.7	+4.1	+36.1
Total.....	.240	.311	.325	+29.6	+4.5	+35.4

¹ Not enough workers to justify the computation of an average.

For the period as a whole, the largest relative gains in average hourly earnings were found in the mechanized establishments, the next highest in semihandicraft, and the smallest in handicraft shops.

Type of Distribution and Average Hourly Earnings

An analysis of the data in bakeries classified by type of distribution shows that on the whole the average hourly earnings were highest in multistate, multiple-unit retail, and chain-store bakeries. There is also a tendency for the average hourly earnings to be greater in local wholesale than in retail and house-to-house establishments. This will be seen by table 20. As a rule, the largest establishments are the multistate, multiple-unit retail, and chain-store bakeries, and the smallest are the retail and house-to-house establishments.

It will also be seen that, as far as absolute increases in average hourly earnings over the entire period are concerned, the largest gains were reported for local wholesale bakeries, and the smallest gains occurred in the retail and house-to-house establishments. Between March 1933 and December 1934, the increases in local wholesale establishments amounted to 13.8 cents for males and 8.4 cents for females in the North and to 11.6 cents for males and 8.9 cents for females in the South. During the same period, the gains in the multistate, multiple-unit retail, and chain-store bakeries were 10.2 cents for

males and 6.8 cents for females in the North and 9.0 cents for males and 8.2 cents for females in the South. The increases in the retail and house-to-house establishments were 7.6 cents for males and 5.2 cents for females in the North and 8.5 cents for males and 7.4 cents for females in the South. The local wholesale plants also showed the largest relative gains for the entire period.

TABLE 20.—Average hourly earnings in bakeries classified by type of distribution as to region and sex

Region, sex, and type of distribution	Average hourly earnings			Percentage of change		
	March 1933	September 1933	December 1934	March to September 1933	September 1933 to December 1934	March 1933 to December 1934
<i>North</i>						
Males:						
Retail and house-to-house	\$0.465	\$0.491	\$0.541	+5.6	+10.2	+16.3
Local wholesale.....	.484	.538	.622	+11.2	+15.6	+28.5
Multi-State, multiple-unit retail, and chain store.....	.505	.560	.607	+10.9	+8.4	+20.2
Total.....	.491	.540	.590	+10.0	+9.3	+20.2
Females:						
Retail and house-to-house .....	.337	.376	.389	+11.6	+3.5	+15.4
Local wholesale.....	.291	.350	.375	+20.3	+7.1	+28.9
Multi-State, multiple-unit retail, and chain store.....	.332	.368	.400	+10.8	+8.7	+20.5
Total.....	.321	.364	.392	+13.4	+7.7	+22.1
<i>South</i>						
Males:						
Retail and house-to-house .....	.356	.400	.441	+12.4	+10.3	+23.9
Local wholesale.....	.342	.429	.458	+25.4	+6.8	+33.9
Multi-State, multiple-unit retail, and chain store.....	.385	.457	.475	+18.7	+3.9	+23.4
Total.....	.360	.436	.462	+21.1	+6.0	+28.3
Females:						
Retail and house-to-house .....	.228	.285	.302	+25.0	+6.0	+32.5
Local wholesale.....	.228	.304	.317	+33.3	+4.3	+39.0
Multi-State, multiple-unit retail, and chain store.....	.262	.333	.344	+27.1	+3.3	+31.3
Total.....	.240	.311	.325	+29.6	+4.5	+35.4

Kind of Product and Average Hourly Earnings

In the North, average hourly earnings of male workers were highest in the bread specialty departments of bakeries in each of the periods surveyed. Earnings of male workers in the bread and cake departments of bakeries in the Northern States were approximately the same, the cake-department employees having a slight advantage in March and September 1933 and the employees of the bread departments of bakeries averaging slightly more in December 1934. (See table 21.)

The higher average earnings in specialty shops are accounted for in large part by the greater skill required in making the bread specialties. In addition, the workers in specialty bakeries are, on the whole, well unionized; most of them are of foreign birth and employed in small shops. It will be seen that for males in the North the average hourly earnings in these bakeries rose only slightly between March and September 1933 and not much more between the latter month and December 1934. In fact, the hourly earnings of skilled workers

engaged in direct labor in these shops whose wage rates were the highest in the industry, declined somewhat throughout the period. The average hourly earnings of these employees were \$1.03 in March 1933, \$1.02 in September 1933, and 99 cents in December 1934.

TABLE 21.—Average hourly earnings in bakeries classified by kind of product as to region and sex

Region, sex, and kind of product	Average hourly earnings			Percentage of change		
	March 1933	September 1933	December 1934	March to September 1933	September 1933 to December 1934	March 1933 to December 1934
<i>North</i>						
Males:						
Bread.....	\$0.484	\$0.535	\$0.588	+10.5	+9.9	+21.5
Cake, sweet goods, and pie, including cake specialties.....	.506	.544	.579	+7.5	+6.4	+14.4
Bread specialties.....	.741	.746	.768	+7	+2.9	+3.6
Total.....	.491	.540	.590	+10.0	+9.3	+20.2
Females:						
Bread.....	.347	.390	.408	+12.4	+4.6	+17.6
Cake, sweet goods, and pie, including cake specialties.....	.288	.336	.375	+16.7	+11.6	+30.2
Bread specialties.....	(1)	(1)	(1)	(1)	(1)	(1)
Total.....	.321	.364	.392	+13.4	+7.7	+22.1
<i>South</i>						
Males:						
Bread.....	.362	.438	.465	+21.0	+6.2	+28.5
Cake, sweet goods, and pie, including cake specialties.....	.327	.411	.434	+25.7	+5.6	+32.7
Bread specialties.....	(2)	(2)	(2)	(2)	(2)	(2)
Total.....	.360	.436	.462	+21.1	+6.0	+28.3
Females:						
Bread.....	.263	.322	.338	+22.4	+5.0	+28.5
Cake, sweet goods, and pie, including cake specialties.....	.196	.293	.305	+49.5	+4.1	+55.6
Bread specialties.....	(2)	(2)	(2)	(2)	(2)	(2)
Total.....	.240	.311	.325	+29.6	+4.5	+35.4

¹ Not enough workers to justify the computation of an average.

² None reported.

Earnings of female workers in the North and of both male and female employees in the South were higher in bread bakeries than in cake shops.

Comparisons With 1931

For the industry as a whole, the average hourly earnings of bakery workers in December 1934 were 2.6 percent higher than in the fall of 1931,⁴⁵ the averages being respectively 54.9 cents and 53.5 cents. This increase was due largely to an advance of 34.4 percent in the hourly earnings of female workers, which rose from an average of 28.2 cents in 1931 to 37.9 cents in December 1934. Earnings of male workers also increased during the 3-year interval, averaging 54.9 cents an hour in 1931 as against 57.0 cents in December 1934.

Although the average hourly earnings for males were only slightly less in 1931 than in 1934, a comparison of the distributions of earnings

⁴⁵ The survey for 1931 excluded pie departments or establishments.

presented in table 22 shows sharp differences. In 1931, for example, 13.0 percent of the male workers were receiving less than 35 cents an hour, but in 1934 only 7.2 percent of the workers were in this group. On the other hand, 27.9 percent earned 35 and under 50 cents an hour in 1931, as against 35.4 percent in 1934. It is interesting to note, however, that the percentage paid 50 and under 65 cents an hour declined from 33.2 in 1931 to 27.6 in 1934. The percentage of workers earning 65 cents and over increased from 25.9 in 1931 to 29.8 in 1934.

Still more striking contrasts are shown in the hourly earnings of female employees. In 1931, nearly two-thirds (64.4 percent) of the female workers earned less than 30 cents an hour, but in 1934 the earnings of all but 11.7 percent of the female employees exceeded 30 cents an hour. At the same time, the percentage paid 30 and under 45 cents an hour rose from 32.5 in 1931 to 71.9 in 1934. Female workers earning 45 cents an hour and over increased from 3.1 percent in 1931 to 16.4 percent in 1934.

For all workers, the proportion earning less than 30 cents per hour declined from 10.4 percent in 1931 to 2.9 percent in 1934, whereas those earning 30 and under 50 cents increased from 33.7 percent in 1931 to 45.5 in 1934. The percentage of the total earning 50 and under 65 cents an hour declined from 31.2 in 1931 to 25.2 in 1934, but the percentage earning 65 cents and over increased from 24.7 in 1931 to 26.4 in 1934.

TABLE 22.—Percentage distribution of employees according to average hourly earnings in bread industry in United States, 1931 and 1934

Average hourly earnings	Fall of 1931			December 1934		
	Total	Male	Female	Total	Male	Female
Under 25 cents.....	4.4	3.1	25.1	0.4	0.3	1.4
25 and under 30 cents.....	6.0	3.9	39.3	2.5	1.4	10.3
30 and under 35 cents.....	6.8	6.0	19.7	8.7	5.5	31.4
35 and under 40 cents.....	7.7	7.6	9.1	11.7	9.7	25.8
40 and under 45 cents.....	10.3	10.9	3.7	14.8	14.8	14.7
45 and under 50 cents.....	8.9	9.4	1.0	10.3	10.9	5.9
50 and under 55 cents.....	12.4	13.3	1.5	9.6	10.3	4.9
55 and under 60 cents.....	9.9	10.5	.4	7.7	8.5	2.1
60 and under 65 cents.....	8.9	9.4	.2	7.9	8.8	1.6
65 and under 70 cents.....	5.2	5.5	-----	5.9	6.7	.6
70 and under 75 cents.....	4.7	5.0	-----	5.5	6.2	.2
75 and under 80 cents.....	3.5	3.7	-----	4.0	4.5	.3
80 and under 90 cents.....	5.0	5.3	-----	5.1	5.8	.5
90 and under 100 cents.....	2.6	2.7	-----	2.9	3.3	.2
100 and under 120 cents.....	2.2	2.2	-----	2.3	2.5	.1
120 cents and over.....	1.5	1.5	-----	.7	.8	-----
Total.....	100.0	100.0	100.0	100.0	100.0	100.0

Chapter IV.—Weekly Hours

Changes in Bread Industry in Country as a Whole

The increase in average hourly earnings between March 1933 and December ⁴⁶ 1934 was accompanied by a pronounced reduction in weekly hours. For all workers in the bread industry in the country as a whole, the hours worked per week averaged 50.2 in March 1933, 45.9 in September 1933, and 43.5 in December 1934. The aggregate reduction of weekly working time for the period was 6.7 hours or 13.3 percent.

The shift of employees from longer to shorter hours was especially conspicuous between March and September 1933. (See table 23 and chart 5.) In both periods, the percentage of those working under 40 hours per week, which includes many part-time employees, was virtually the same. The number working 40 and under 48 hours, however, increased from 8.8 percent in March to 45.7 percent in September. A particularly large gain is shown in the number of employees working 44 and under 48 hours; in fact, by September this was the established working time for more than a third of the employees. As a result of these changes, the proportion of employees working 48 hours and over fell from 80.5 percent in March to 42.9 percent in September.

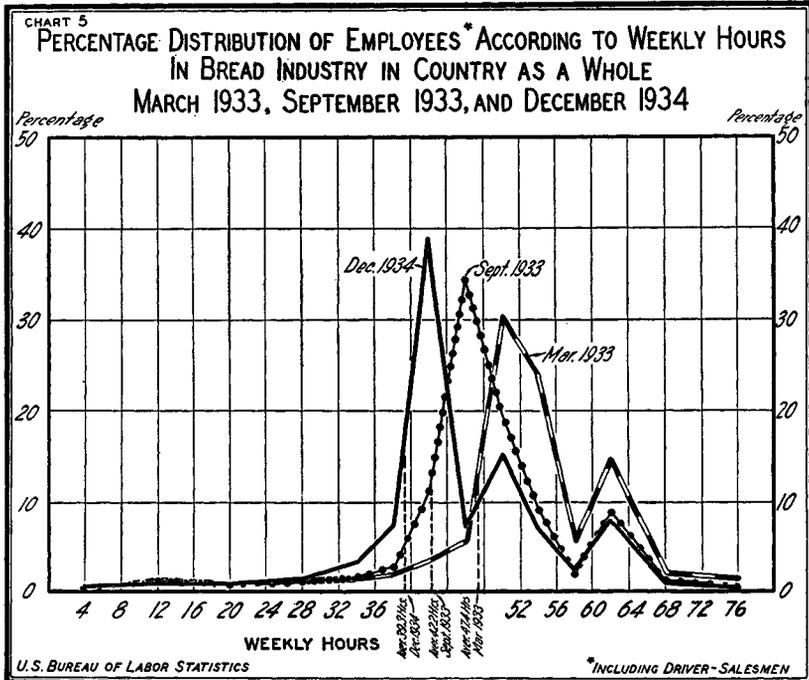
Whereas in September 1933 the trend was toward a workweek of 44 and under 48 hours, in December 1934 the industry was inclined toward a week of 40 and under 44 hours, as evidenced by the fact that the working time of nearly 40 percent of the employees fell within these limits. At the same time, the proportion of employees working less than 40 hours per week increased from 11.4 percent in September 1933 to 18.5 percent in December 1934. This gain was largely due to an increase in the number of employees working 32 and under 40 hours per week. The percentage of employees working 48 hours and over declined from 42.9 in September 1933 to 35.4 in December 1934.

TABLE 23.—Percentage distribution of employees according to weekly hours in bread industry in country as a whole

Weekly hours	March 1933		September 1933		December 1934	
	Simple percentage	Cumulative percentage	Simple percentage	Cumulative percentage	Simple percentage	Cumulative percentage
Under 8 hours.....	0.5	0.5	0.7	0.7	1.2	1.2
8 and under 16 hours.....	2.8	3.3	2.5	3.2	2.1	3.3
16 and under 24 hours.....	1.8	5.1	1.5	4.7	1.7	5.0
24 and under 32 hours.....	2.4	7.5	2.3	7.0	2.9	7.9
32 and under 36 hours.....	1.4	8.9	1.7	8.7	3.3	11.2
36 and under 40 hours.....	1.8	10.7	2.7	11.4	7.3	18.5
40 and under 44 hours.....	3.3	14.0	11.3	22.7	38.8	57.3
44 and under 48 hours.....	5.5	19.5	34.4	57.1	7.3	64.6
48 and under 52 hours.....	30.2	49.7	19.6	76.7	15.3	79.9
52 and under 56 hours.....	23.9	73.6	9.2	85.9	7.0	86.9
56 and under 60 hours.....	5.6	79.2	1.9	87.8	2.4	89.3
60 and under 64 hours.....	14.6	93.8	8.8	96.6	8.0	97.3
64 and under 72 hours.....	4.4	98.2	2.3	98.9	1.8	99.1
72 hours and over.....	1.8	100.0	1.1	100.0	.9	100.0

⁴⁶ The figures in this section include driver-salesmen. See note 47, p. 52.

Long hours of work have always been a characteristic feature of the bread industry. In March 1933, 20.8 percent of the employees worked 60 or more hours per week. This number was reduced to 12.2 percent in September 1933 and 10.7 percent in December 1934. Most of the employees who worked 60 hours and over in September 1933 and December 1934, however, were driver-salesmen, whose hours of labor were not regulated during the period of the National Recovery Administration.



Changes in Averages by Region and Sex in Bread Industry

As the working time of driver-salesmen was not subject to regulation under the National Recovery Administration,⁴⁷ a better idea of the effects of the President's Reemployment Agreement and the code upon weekly hours in the bread industry can be obtained if the workers in this occupation are excluded. This has been done in table 24 and chart 6, which shows the average weekly hours in the bread industry by region and sex.

⁴⁷ Driver-salesmen were specifically excluded from the maximum hours substitute provisions of the President's Reemployment Agreement, and those whose earnings were computed partly or wholly on a commission basis were exempted from similar provisions in the code. Accordingly, all driver-salesmen (there are very few employed on a time basis) were excluded from the remaining tables in this chapter, although separate figures are shown for them in a later section of this chapter. However, the driver-salesmen have been included in the summary figures in the appendix table on weekly hours.

TABLE 24.—Average weekly hours in bread industry by region and sex

Region and sex	Average weekly hours			Percentage of change		
	March 1933	September 1933	December 1934	March to September 1933	September 1933 to December 1934	March 1933 to December 1934
United States:						
Males.....	48.3	42.7	39.6	-11.6	-7.3	-18.0
Females.....	42.8	39.7	37.6	-7.2	-5.3	-12.1
Total.....	47.4	42.2	39.3	-11.0	-6.9	-17.1
North:						
Males.....	48.0	42.6	39.6	-11.2	-7.0	-17.5
Females.....	42.8	39.6	37.4	-7.5	-5.6	-12.6
Total.....	47.1	42.1	39.3	-10.6	-6.7	-16.6
South:						
Males.....	50.5	43.2	39.9	-14.5	-7.6	-21.0
Females.....	43.0	40.0	38.2	-7.0	-4.5	-11.2
Total.....	49.0	42.7	39.5	-12.9	-7.5	-19.4

In general, the President's Reemployment Agreement and the code reduced the spread in hours worked which existed between regions and between sexes. In all three periods, males in the South had the highest average, and females in the North the lowest average. The range between the averages of these two groups was reduced from 7.7 hours in March 1933 to 3.6 hours in September 1933 and to 2.5 hours in December 1934. In March 1933, all workers in the South averaged 1.9 hours more per week than in the North, in September 1933 they averaged 0.6 hour more, and in December 1934 only 0.2 hour more.

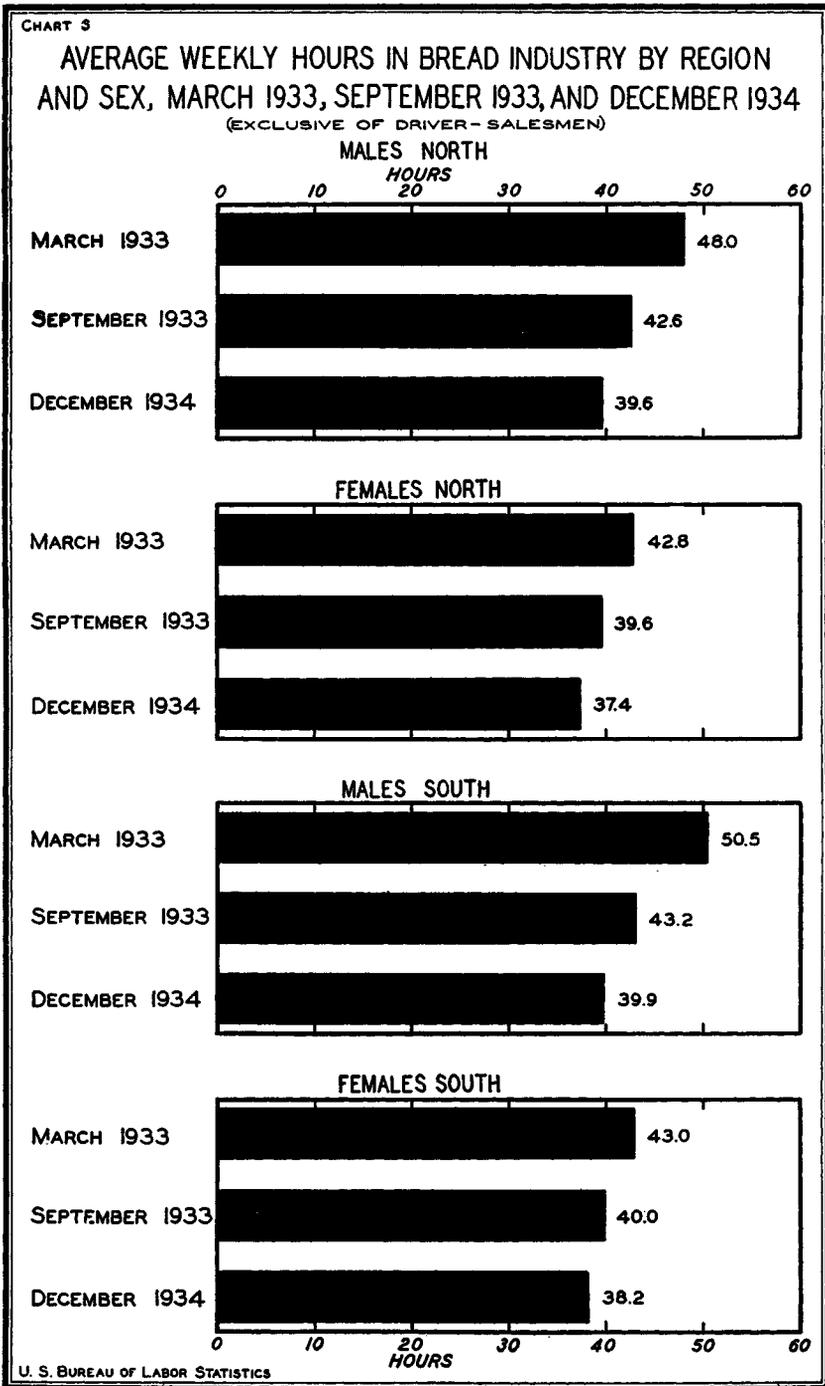
Just as the code operated to equalize working time in the two regions, it tended to reduce the difference in the working time of males and females. In March 1933, males averaged 5.5 hours more per week than females, whereas in December 1934 they averaged only 2.0 hours more.

Monthly Trend of Working Time for Entire Baking Industry Based on Employment and Pay-Roll Data

These findings regarding working time are substantiated by the index numbers of average weekly hours for the entire industry, including biscuit and crackers, as shown by the monthly data compiled in the Division of Employment and Pay Rolls.⁴⁸ These index numbers are given in table 25.

According to the index numbers, there was a gradual downward movement in average weekly hours, interrupted by several minor fluctuations, from January 1932 until about the middle of 1933. This is undoubtedly the result of factors that operated during the depression, such as the elimination of overtime and introduction of part-time work. The sharp drop in the index from 96.2 in July to 88.4 in August and the further decrease to 85.3 in September 1933, however, was probably due to the President's Reemployment Agreement. Although the index number rose again very slowly to 86.2

⁴⁸ The absolute figures of average weekly hours worked were 45.6 in March 1933, 41.5 in September 1933, and 39.7 in December 1934. These averages exclude for the most part driver-salesmen.



in June 1934, there was a further decline to 84.4 in July 1934 and to 82.1 in August, which reflect the working-time provisions of the code. By December 1934, the index number had risen slightly to 83.1

TABLE 25.—Index numbers of average weekly hours in entire baking industry¹ in the United States, by months, 1932-35²

[January 1932=100]

Month	1932	1933	1934	1935
January.....	100.0	94.7	86.0	83.9
February.....	98.5	95.1	86.0	85.0
March.....	98.5	92.6	86.6	84.8
April.....	97.4	94.9	86.4	84.8
May.....	97.0	95.4	85.8	85.2
June.....	96.2	95.8	86.2	85.8
July.....	93.9	96.2	84.4	85.8
August.....	94.3	88.4	82.1	84.3
September.....	96.6	85.3	83.7	87.5
October.....	97.0	84.9	82.0	87.4
November.....	94.6	85.7	82.7	87.2
December.....	93.3	85.6	83.1	87.8

¹ Includes biscuit and crackers.

² Compiled by the Division of Employment and Pay Rolls of the Bureau of Labor Statistics.

Changes in Percentage Distribution by Region and Sex in Bread Industry Due to President's Reemployment Agreement

The percentage distribution, of employees by weekly hours in the bread industry, covering male and female employees in the North and South, are given in table 26. These distributions serve to emphasize the shift in employees from longer to shorter hours, which resulted from the President's Reemployment Agreement and the code.

The substitute provisions of the President's Reemployment Agreement, regarding maximum hours in bakeries, were as follows:

Employees (other than bakery shop employees and outside salesmen) shall not be employed for more than a 40-hour week provided, however, that clerical and sales employees in retail bakery shops shall not be employed for more than a 48-hour week.

Bakery shop employees shall not be employed for more than a 44-hour week in machine bakeries nor more than a 50-hour week in handicraft shops nor more than 8 hours per day except before and after holidays and week ends and other special occasions when 10 hours per day is permitted.

It will be seen from the table that the President's Reemployment Agreement caused no appreciable change in the proportion of the workers on short time. Neither in the North nor South and neither for males nor females was there a marked change in the proportion of employees working less than 36 hours a week. Indeed, as far as male employees are concerned, there was little change in the proportion working less than 40 hours a week. For females, there were significant changes in the proportion working 36 and under 40 hours a week. The movement, however, varied somewhat in the two regions. In March 1933, 5.6 percent of the females in the North worked 36 but less than 40 hours a week. In September 1933, this proportion rose to 9.3 percent. In the South, on the other hand, the proportion of women working 36 and under 40 hours fell from 4.9 percent in March 1933 to 2.7 percent in September 1933.

TABLE 26.—Percentage distribution of employees according to weekly hours by region and sex in bread industry

Region, sex, and weekly hours	March 1933		September 1933		December 1934	
	Simple percentage	Cumulative percentage	Simple percentage	Cumulative percentage	Simple percentage	Cumulative percentage
<i>North</i>						
Males: ¹						
Under 8 hours.....	0.7	0.7	1.0	1.0	1.6	1.6
8 and under 16 hours.....	3.6	4.3	3.2	4.2	2.8	4.4
16 and under 24 hours.....	2.3	6.6	1.8	6.0	2.0	6.4
24 and under 32 hours.....	3.1	9.7	2.6	8.6	3.1	9.5
32 and under 36 hours.....	2.0	11.7	2.3	10.9	3.8	13.3
36 and under 40 hours.....	1.8	13.5	2.8	13.7	9.8	23.1
40 and under 44 hours.....	3.7	17.2	12.9	26.6	51.7	74.8
44 and under 48 hours.....	6.4	23.6	49.6	76.2	9.5	84.3
48 and under 52 hours.....	34.4	58.0	17.2	93.4	12.1	96.4
52 and under 56 hours.....	24.9	82.9	4.2	97.6	1.8	98.2
56 and under 60 hours.....	5.9	88.8	4	93.0	.4	98.6
60 and under 64 hours.....	7.8	96.6	1.6	99.6	1.3	99.9
64 hours and over.....	3.4	100.0	.4	100.0	.1	100.0
Females:						
Under 8 hours.....	1.2	1.2	1.2	1.2	1.7	1.7
8 and under 16 hours.....	3.8	5.0	4.4	5.6	3.2	4.9
16 and under 24 hours.....	4.0	9.0	2.4	8.0	2.9	7.8
24 and under 32 hours.....	5.0	14.0	6.6	14.6	7.4	15.2
32 and under 36 hours.....	2.5	16.5	3.3	17.9	8.4	23.6
36 and under 40 hours.....	5.6	22.1	9.3	27.2	16.2	39.8
40 and under 44 hours.....	10.1	32.2	26.9	54.1	44.8	84.6
44 and under 48 hours.....	16.1	48.3	24.9	79.0	3.3	87.9
48 and under 52 hours.....	39.2	87.5	19.9	98.9	12.0	99.9
52 and under 56 hours.....	8.4	95.9	1.1	100.0	(²)	99.9
56 hours and over.....	4.1	100.0			.1	100.0
<i>South</i>						
Males: ¹						
Under 8 hours.....	.2	.2	.9	.9	1.3	1.3
8 and under 16 hours.....	4.5	4.7	2.5	3.4	2.2	3.5
16 and under 24 hours.....	2.7	7.4	1.7	5.1	2.1	5.6
24 and under 32 hours.....	1.5	8.9	2.0	7.1	3.0	8.6
32 and under 36 hours.....	.7	9.6	1.7	8.8	2.9	11.5
36 and under 40 hours.....	1.4	11.0	1.6	10.4	4.4	15.9
40 and under 44 hours.....	2.2	13.2	13.2	23.6	60.7	76.6
44 and under 48 hours.....	2.7	15.9	52.5	76.1	8.6	85.2
48 and under 52 hours.....	27.1	43.0	17.1	93.2	10.7	95.9
52 and under 56 hours.....	30.0	73.0	1.9	95.1	1.8	97.7
56 and under 60 hours.....	2.3	75.3	.9	96.0	.8	98.5
60 and under 64 hours.....	16.7	92.0	1.8	97.8	1.4	99.9
64 hours and over.....	8.0	100.0	2.2	100.0	.1	100.0
Females:						
Under 8 hours.....	.9	.9	.5	.5	1.8	1.8
8 and under 16 hours.....	7.0	7.9	4.5	5.0	3.8	5.6
16 and under 24 hours.....	1.8	9.7	4.5	9.5	3.6	9.2
24 and under 32 hours.....	8.8	18.5	4.5	14.0	7.0	16.2
32 and under 36 hours.....	1.8	20.3	3.2	17.2	5.6	21.8
36 and under 40 hours.....	4.9	25.2	2.7	19.9	4.0	25.8
40 and under 44 hours.....	5.2	30.4	26.4	46.3	51.2	77.0
44 and under 48 hours.....	7.0	37.4	30.3	76.6	5.0	82.0
48 and under 52 hours.....	35.9	73.3	23.4	100.0	17.8	99.8
52 and under 56 hours.....	24.9	98.2			.2	100.0
56 hours and over.....	1.8	100.0				

¹ Excludes driver-salesmen.² Less than 1/10 of 1 percent.

In both regions and for both sexes, there was a sharp increase in the proportion of employees working 40 but less than 48 hours per week. The concentration in the interval 44 and under 48 hours was especially marked, and it was sharper for males than for females.

This increase in the proportion working 40 but less than 48 hours was due almost entirely to a marked decrease in the proportion working

48 hours and over. This was especially true of the male employees, exclusive of driver-salesmen. Thus, among males in the North, the proportion working 48 hours and over per week decreased from 76.4 percent in March to 23.8 percent in September 1933. This compares with a decrease from 84.1 to 23.9 percent in the South. The proportion of female employees working 48 hours and over per week dropped from 51.7 to 21.0 percent in the North and from 62.6 to 23.4 percent in the South.

As the President's Reemployment Agreement provided a maximum of 50 hours per week for handicraft bakeries, there was still a considerable proportion of employees in each group working 48 and under 52 hours during September 1933. Moreover, had it been possible to cover the smaller establishments in the same proportion as they occur in the industry, the percentage of employees working 48 and under 52 hours a week would have been even greater.

It is particularly significant, however, that (exclusive of the driver-salesmen) the 56- and 60-hour week was virtually abolished by the President's Reemployment Agreement. In the North, the percentage of male employees working 56 hours and over in September 1933 was only 2.4, as against 17.1 percent in March. In the South, the percentage of male employees working 56 hours and over a week declined from 27.0 in March to 4.9 in September. Of the female employees, none in the southern establishments covered and only 1.1 percent in the North were working in excess of 52 hours per week in September 1933. By contrast, in March 1933, 26.7 percent of the female employees in the South and 12.5 percent of those in the North were working 52 hours and over a week.

Changes in Percentage Distribution by Region and Sex Due to Code

The maximum hours of labor established by the code were more detailed than those of the President's Reemployment Agreement. In general, the code provided that no employee in "other than handicraft" shops shall be permitted to work more than 40 hours per week.⁴⁹ Employees in "handicraft" shops were limited to 48 hours a week. The hours of sales employees in retail stores were limited to 10 hours a day and 48 hours a week. Likewise, chauffeurs, supply truckmen, and delivery men were not to work more than 48 hours per week. Finally, 44 hours per week were established as the maximum for engineers, firemen, and oilers.

Some exceptions were made to the hour provisions of the code and account in part for the longer hours shown in table 26 for some workers. Executives, solicitors, and professional employees earning \$35 or more per week in cities over 100,000 and \$30 in those cities with less than 100,000 population were totally exempted from the hour provisions of the code, as were also salesmen working on a commission basis. For watchmen the maximum hours were 56 per week.

The principal change in weekly hours that occurred between September 1933 and December 1934 was the marked shift from a week of 44 and under 48 hours to a week of 40 and under 44 hours. Among the four groups considered, the percentage of employees working 40

⁴⁹ The provisions of the code with reference to hours worked per day and their effect are not discussed in this survey.

and under 44 hours a week in December 1934 was 51.7 for males and 44.8 for females in the North and 60.7 for males and 51.2 for females in the South. It will be seen that this change affected male workers more than females.

There is no evidence that the code had much influence on the proportion of employees working less than 32 hours a week. There was, however, a marked increase for both sexes in the North and South in the number working 32 and less than 40 hours, with the largest gain generally taking place in the class interval of 36 and under 40 hours. This increase was due for the most part to the code provision limiting individual workers to a maximum of 40 hours per week in the mechanical bakeries, so that voluntary absence or a short workweek would throw an employee into a period of less than 40 hours.

Both the President's Reemployment Agreement and the code tended to eliminate extremely short-time work among females in the South. In March 1933, 7.9 percent of the female employees in the southern establishments worked less than 16 hours, but in December 1934 this proportion had dropped to 5.6 percent, and the proportion working 16 and under 24 hours a week had increased. Similarly, there was a decrease in the percentage working 24 and under 32 hours, and a considerable gain in the percentage working 32 and under 36 hours.

The decrease in the number of employees working 48 and less than 52 hours has significance with reference to the relative degrees of acceptance of the President's Reemployment Agreement and enforcement of the code. The handicraft shop had a maximum limitation of 50 hours under the President's Reemployment Agreement and of 48 hours under the code. For both September 1933 and December 1934, employees in establishments operating on this basis would appear in the class interval of 48 and under 52 hours. The decrease in the percentages found in this class seems to indicate that some mechanical bakeries were operating the longer workweek under the President's Reemployment Agreement and that certain handicraft shops adopted a standard workweek of less than 48 hours.

With reference to the reduction of the long workweek, the major change was accomplished under the President's Reemployment Agreement. In the period from September 1933 to December 1934, however, there was further progress in the direction of a shorter week.

Differentials in Averages by Broad Occupational Groupings

The occupation quite often determines the length of the workday, as well as the number of hours worked during the week. This was recognized to a considerable extent by the President's Reemployment Agreement and the code, which, as noted already, set up varying maximum hours in accordance with individual occupations or occupational groupings.

Table 27 presents the average hours per week by broad occupational groupings for each of the three pay-roll periods covered, as well as the percentages of change, thus developing the extent of the occupational differentials in March 1933 and their subsequent changes. Prior to the President's Reemployment Agreement—i. e., in March 1933—there was little difference in average weekly hours between skilled, semiskilled, and unskilled male workers engaged in direct labor in the

North. In the South, however, skilled males worked 6.9 more hours per week than the semiskilled and 5.4 more than the unskilled. Weekly hours for all of these groups decreased under the President's Reemployment Agreement and the code, the differentials becoming negligible in the North and narrowing in the South.

More than 40 hours a week were permissible under the code for many of the occupations classified as "other" indirect male labor. In the North, the working time of "other" indirect labor averaged 3.2 hours a week more than for skilled direct labor in March 1933. This differential increased to 4.3 hours in December 1934. In the South, there was hardly any differential in March 1933, but in December 1934 the working time of indirect laborers was slightly above the average for skilled direct workers.

TABLE 27.—Average weekly hours by broad occupational groupings as to region and sex

Region, sex, and broad occupational grouping	Average weekly hours			Percentage of change		
	March 1933	September 1933	December 1934	March to September 1933	September 1933 to December 1934	March 1933 to December 1934
<i>North</i>						
Males:						
Direct labor:						
Skilled.....	46.8	41.6	38.2	-11.1	-8.2	-18.4
Semiskilled.....	45.4	40.7	37.1	-10.4	-8.8	-18.3
Unskilled.....	47.9	41.8	38.2	-12.7	-8.6	-20.3
Indirect labor:						
Driver-salesmen.....	55.9	55.2	54.8	-1.3	-7.7	-2.0
Other.....	50.0	44.5	42.5	-11.0	-4.5	-15.0
Total.....	48.0	42.6	39.6	-11.2	-7.0	-17.5
Females:						
Direct labor: Unskilled.....	41.2	37.4	34.9	-9.2	-6.7	-15.3
Indirect labor: Other.....	43.5	40.9	39.2	-6.0	-4.2	-9.9
Total.....	42.8	39.6	37.4	-7.5	-5.6	-12.6
<i>South</i>						
Males:						
Direct labor:						
Skilled.....	52.4	45.0	40.1	-14.1	-10.9	-23.5
Semiskilled.....	45.5	40.1	37.9	-11.9	-5.5	-16.7
Unskilled.....	47.0	40.8	37.9	-13.2	-7.1	-19.4
Indirect labor:						
Driver-salesmen.....	60.2	58.8	59.0	-2.3	+3.3	-2.0
Other.....	52.2	44.5	41.7	-14.8	-6.3	-20.1
Total.....	50.5	43.2	39.9	-14.5	-7.6	-21.0
Females:						
Direct labor: Unskilled.....	41.0	38.3	36.3	-6.6	-5.2	-11.5
Indirect labor: Other.....	43.8	40.8	39.3	-6.8	-3.7	-10.3
Total.....	43.0	40.0	38.2	-7.0	-4.5	-11.2

An analysis of the distribution of employees by weekly hours in the above broad occupational groupings (table 27) indicates that in the establishments included in the survey, the hour provisions of the code were being generally observed. Among the occupational groupings engaged in direct labor, not over 2.1 percent of the males and not over 0.4 percent of the females worked more than 48 hours, the upper limit for handicraft shops. The great majority worked 40 hours or less, the upper limit for mechanical bakeries. Work of more than 48

hours a week was found to an appreciable extent only in the occupations classified as other indirect male labor, which grouping included executives and others who were exempted from the hour provisions of the code. In this grouping, a very large proportion (over 40 percent) worked more than 40 hours, but the code provided a longer workweek than this for many classes of indirect labor even in mechanical bakeries.

Weekly Hours of Driver-Salesmen

The most striking differentials in average weekly hours, however, were between direct labor and driver-salesmen, whose working time was not restricted by the code. In March 1933, driver-salesmen averaged 55.9 hours in the North and 60.2 hours in the South.⁵⁰ These averages decreased only 2.0 percent between March 1933 and December 1934. Because of this fact, the spread between the working time of these employees and those of skilled direct labor increased from 9.1 to 16.6 hours a week in the North and from 7.8 to 18.9 hours a week in the South.

TABLE 28.—Percentage of employees in broad occupational groupings working code hours or less per week as to region and sex in December 1934

Region, sex, and broad occupational grouping	Percentage of employees who worked per week in December 1934—			
	Exactly 40 hours	40 hours or less	Exactly 48 hours	48 hours or less
<i>North</i>				
Males:				
Direct labor:				
Skilled.....	45.4	76.2	5.8	98.5
Semiskilled.....	47.1	83.4	4.8	99.2
Unskilled.....	59.7	88.0	2.6	98.1
Indirect labor: Other.....	39.8	50.0	20.3	88.9
Females:				
Direct labor: Unskilled.....	30.0	89.8	.9	99.6
Indirect labor: Other.....	47.1	72.8	19.3	99.6
<i>South</i>				
Males:				
Direct labor:				
Skilled.....	65.0	77.7	8.7	97.9
Semiskilled.....	56.6	83.4	6.3	98.4
Unskilled.....	63.3	84.3	3.8	98.5
Indirect labor: Other.....	48.2	58.8	15.3	88.9
Females:				
Direct labor: Unskilled.....	39.8	79.6	2.6	100.0
Indirect labor: Other.....	48.2	65.2	26.7	98.7

Because of these wide differences, it is necessary to consider the working time of driver-salesmen separately. The detailed analysis of the weekly hours for employees of this class in the three pay-roll periods covered is given in table 29. This table shows that the weekly hours of these workers were not materially altered from one period to the next, although there was some decrease in the proportion of driver-salesmen working the longest hours. Yet, even in December 1934, 21.5 percent of the driver-salesmen in the South and 8.0 percent in the North worked 64 hours and over per week.

⁵⁰ These hours represent the time between leaving and returning to the plant. It should also be remembered that driver-salesmen are largely on a commission basis, which tends to encourage them to lengthen their working hours.

Changes in Averages by Occupational Classes

Table 30 shows the average weekly hours by individual occupations or small occupational groupings for each of the three pay-roll periods, as well as the percentages of change between periods.

In case of males engaged in direct labor in the North, the average weekly hours in March 1933 for the 14 individual occupations ranged from 42.1 for bench hands or hand bakers to 50.0 for automatic bread wrappers. The decreases in the average weekly hours for these occupations between March 1933 and December 1934 ranged from 5.1 for cake wrappers and packers to 11.8 for automatic bread wrappers. The tendency throughout the period was toward a leveling of the weekly working time. Consequently, the largest decreases were reported for occupations that had the longest hours of labor in March 1933. As a result of this leveling process, the range in December 1934 was from 35.1 hours for bench hands or hand bakers to 40.5 hours for cake makers.

TABLE 29.—Percentage distribution of driver-salesmen according to weekly hours as to region

Region and weekly hours	March 1933		September 1933		December 1934	
	Simple percentage	Cumulative percentage	Simple percentage	Cumulative percentage	Simple percentage	Cumulative percentage
<i>North</i>						
Under 8 hours.....	(¹)	(¹)	(¹)	(¹)	(¹)	(¹)
8 and under 16 hours.....	0.5	0.5	0.3	0.3	0.2	0.2
16 and under 24 hours.....	.2	.7	.3	.6	.3	.5
24 and under 32 hours.....	.3	1.0	.3	.9	.4	.9
32 and under 36 hours.....	.2	1.2	(¹)	.9	.1	1.0
36 and under 40 hours.....	.6	1.8	.7	1.6	.4	1.4
40 and under 44 hours.....	.7	2.5	1.0	2.6	1.0	2.4
44 and under 48 hours.....	1.5	4.0	2.7	5.3	4.5	6.9
48 and under 52 hours.....	23.5	27.5	27.6	32.9	27.5	34.4
52 and under 56 hours.....	26.0	53.5	24.0	56.9	22.6	57.0
56 and under 60 hours.....	6.6	60.1	5.1	62.0	6.9	63.9
60 and under 64 hours.....	29.7	89.8	28.2	90.2	28.1	92.0
64 hours and over.....	10.2	100.0	9.8	100.0	8.0	100.0
<i>South</i>						
Under 8 hours.....	.1	.1	.1	.1	-----	-----
8 and under 16 hours.....	-----	.1	.1	.2	-----	-----
16 and under 24 hours.....	.1	.2	.3	.5	.3	.3
24 and under 32 hours.....	.3	.5	.4	.9	.1	.4
32 and under 36 hours.....	-----	.5	.3	1.2	-----	.4
36 and under 40 hours.....	-----	.5	.1	1.3	.1	.5
40 and under 44 hours.....	.6	1.1	.6	1.9	2.1	2.6
44 and under 48 hours.....	.9	2.0	.8	2.7	1.5	4.1
48 and under 52 hours.....	5.4	7.4	6.8	9.5	7.0	11.1
52 and under 56 hours.....	21.8	29.2	28.6	38.1	24.1	35.2
56 and under 60 hours.....	12.5	41.7	11.5	49.6	15.9	51.1
60 and under 64 hours.....	32.2	73.9	30.4	80.0	27.4	78.5
64 hours and over.....	26.1	100.0	20.0	100.0	21.5	100.0

¹ Less than 1/10 of 1 percent.

TABLE 30.—Average weekly hours by occupational classes as to region and sex

Region, sex, and occupational class	Average weekly hours			Percentage of change		
	March 1933	September 1933	December 1934	March to September 1933	September 1933 to December 1934	March 1933 to December 1934
<i>Males—North</i>						
Direct labor:						
Skilled:						
Bench hands or hand bakers.....	42.1	38.4	35.1	-8.8	-8.6	-16.6
Cake makers.....	47.5	42.9	40.5	-9.7	-5.6	-14.7
Dividers or scalers and rounders..	48.6	43.0	39.1	-11.5	-9.1	-19.5
Mixers.....	49.9	43.9	39.8	-12.0	-9.3	-20.2
Molders.....	48.6	41.6	37.9	-14.4	-8.9	-22.0
Ovenmen.....	47.8	42.2	38.5	-11.7	-8.8	-19.5
Miscellaneous, skilled.....	46.4	42.9	39.5	-7.5	-7.9	-14.9
Total.....	46.8	41.6	38.2	-11.1	-8.2	-18.4
Semiskilled:						
Bench hands' or hand bakers' helpers.....	43.1	38.5	36.4	-10.7	-5.5	-15.5
General helpers.....	45.2	40.3	35.8	-10.8	-11.2	-20.8
Mixers' helpers.....	45.8	42.1	38.7	-8.1	-8.1	-15.5
Ovenmen's helpers.....	44.8	40.3	36.9	-10.0	-8.4	-17.6
Miscellaneous, semiskilled.....	50.3	43.2	39.5	-14.1	-8.6	-21.5
Total.....	45.4	40.7	37.1	-10.4	-8.8	-18.3
Unskilled:						
Bread packers.....	47.7	41.5	38.1	-13.0	-8.2	-20.1
Bread wrappers, automatic.....	50.0	42.0	38.2	-16.0	-9.0	-23.6
Cake wrappers and packers.....	42.4	38.3	37.3	-9.7	-2.6	-12.0
Pan greasers.....	49.1	42.7	38.0	-13.0	-11.0	-22.6
Miscellaneous, unskilled.....	45.3	41.3	39.5	-8.8	-4.4	-12.8
Total.....	47.9	41.8	38.2	-12.7	-8.6	-20.3
Indirect labor:						
Driver-salesmen.....	55.9	55.2	54.8	-1.3	-.7	-2.0
Other:						
Auditors, bookkeepers, etc.....	48.2	44.4	42.6	-7.9	-4.1	-11.6
Chauffeurs and drivers.....	48.6	46.6	44.1	-4.1	-5.4	-9.3
Laborers.....	45.3	41.7	38.7	-7.9	-7.2	-14.6
Maintenance and repair, skilled.....	50.4	44.2	44.2	-12.3	-----	-12.3
Maintenance and repair, semi-skilled.....	52.0	42.6	42.4	-18.1	-.5	-18.5
Office clerks.....	47.5	42.8	39.0	-9.9	-8.9	-17.9
Service, unskilled.....	49.0	41.8	38.5	-14.7	-7.9	-21.4
Supervisory, skilled.....	53.5	50.0	48.3	-6.5	-3.4	-9.7
Miscellaneous, skilled.....	51.5	46.3	43.4	-10.1	-6.3	-15.7
Miscellaneous, semiskilled.....	47.8	42.8	40.7	-10.5	-4.9	-14.9
Miscellaneous, unskilled.....	46.4	41.7	39.2	-10.1	-6.0	-15.5
Total.....	50.0	44.5	42.5	-11.0	-4.5	-15.0
<i>Females—North</i>						
Direct labor:						
Unskilled:						
Bread wrappers, hand.....	43.0	38.7	34.8	-10.0	-10.1	-19.1
Cake finishers.....	39.9	36.8	35.3	-7.8	-4.1	-11.5
Cake wrappers and packers.....	41.6	37.5	34.7	-9.9	-7.5	-16.6
Total.....	41.2	37.4	34.9	-9.2	-6.7	-15.3
Indirect labor:						
Other:						
Office clerks.....	44.3	41.0	38.6	-7.4	-5.9	-12.9
Stenographers, typists, telephone operators, etc.....	45.2	40.7	39.8	-10.0	-2.2	-11.9
Store clerks.....	43.4	42.7	42.2	-1.6	-1.2	-2.8
Miscellaneous.....	42.5	39.5	36.8	-7.1	-6.8	-13.4
Total.....	43.5	40.9	39.2	-6.0	-4.2	-9.9

TABLE 30.—Average weekly hours by occupational classes as to region and sex—Continued

Region, sex, and occupational class	Average weekly hours			Percentage of change		
	March 1933	September 1933	December 1934	March to September 1933	September 1933 to December 1934	March 1933 to December 1934
<i>Males—South</i>						
Direct labor:						
Skilled:						
Bench hands or hand bakers.....	50.5	44.6	37.4	-11.7	-16.1	-25.9
Ovenmen.....	53.1	45.4	40.8	-14.5	-10.1	-23.2
Miscellaneous, skilled.....	52.9	45.0	41.2	-14.9	-8.4	-22.1
Total.....	52.4	45.0	40.1	-14.1	-10.9	-23.5
Semiskilled:						
General helpers.....	38.4	35.6	35.5	-7.3	- .3	-7.6
Ovenmen's helpers.....	49.8	41.9	38.2	-15.9	-8.8	-23.3
Miscellaneous, semiskilled.....	48.8	42.7	39.6	-12.5	-7.3	-18.9
Total.....	45.5	40.1	37.9	-11.9	-5.5	-16.7
Unskilled:						
Bread wrappers, automatic.....	49.0	41.2	37.5	-15.9	-9.0	-23.5
Miscellaneous, unskilled.....	44.9	40.5	38.2	-9.8	-5.7	-14.9
Total.....	47.0	40.8	37.9	-13.2	-7.1	-19.4
Indirect labor:						
Driver-salesmen.....	60.2	58.8	59.0	-2.3	+ .3	-2.0
Other.....	52.2	44.5	41.7	-14.8	-6.3	-20.1
<i>Females—South</i>						
Direct labor: Unskilled.....	41.0	38.3	36.3	-6.6	-5.2	-11.5
Indirect labor:						
Other:						
Store clerks.....	43.0	42.3	41.9	-1.6	- .9	-2.6
Miscellaneous.....	44.3	40.1	38.0	-9.5	-5.2	-14.2
Total.....	43.8	40.8	39.3	-6.8	-3.7	-10.3

For male employees engaged in indirect labor in the North (except driver-salesmen), the highest average weekly hours during each period were reported for skilled supervisory employees. Although most of these were probably classed as executives and exempted from the maximum-hours provisions of the President's Reemployment Agreement and the code, the average hours per week of this group declined from 53.5 hours a week in March 1933 to 48.3 hours in December 1934. As far as the remaining occupational classes are concerned, the range in average weekly hours in March 1933 was from 45.3 for laborers to 52.0 for semiskilled workers in maintenance and repair work, and in December 1934 from 38.5 for unskilled service employees to 44.2 for skilled workers in maintenance and repair work.

Among males employed in direct labor in the South, there was also a narrowing of the spread between the hours worked in the various occupations. The range in average weekly hours in March 1933 for the five individual occupations shown in the table was from 38.4 for general helpers to 53.1 for ovenmen. By December 1934 the working time for these occupations ranged from 35.5 hours a week for general helpers to 40.8 hours for ovenmen.

Among females employed in occupations classed as unskilled direct labor in the North, the range in average weekly hours for the three individual occupations shown in March 1933 was from 39.9 to 43.0.

Northern store clerks in the indirect labor group, for whom the code provided a maximum of 48 hours, showed little change in average weekly hours, the averages being 43.4 hours in March 1933 and 42.2 hours in December 1934. In the South also, the average weekly hours of store clerks declined very little, averaging 43.0 in March 1933 as against 41.9 in December 1934. The reduction for office clerks in the North was from 44.3 hours in March 1933 to 38.6 hours in December 1934, and for other office help the weekly hours were reduced from 45.2 in March 1933 to 39.8 in December 1934.

Regional and Sex Differentials in Averages by Occupations

Regional differentials are to be noted for all five individual occupations among males engaged in direct labor, for which comparable data are available.⁶¹ The average weekly hours of bench hands or hand bakers in the South exceeded those in the North by 8.4 hours in March 1933, 6.2 hours in September 1933, and 2.3 hours in December 1934. The southern average for ovenmen, another skilled occupation, exceeded the northern by 5.3 hours in March 1933, 3.2 in September 1933, and 2.3 in December 1934. Ovenmen's helpers, a semiskilled occupation, showed a differential of 5.0 hours in March 1933, 1.6 in September 1933, and 1.3 in December 1934.

Despite the fact that the general averages for all male workers and for three directly comparable specific occupations show longer hours in the South than in the North, this is not true for all occupations. Thus, for general helpers, a semiskilled occupation, the average weekly hours were longer in the North, namely by 6.8 hours in March 1933, 4.7 hours in September 1933, and 0.3 hour in December 1934. For automatic bread wrappers, an unskilled occupation, the average hours per week were also slightly higher in the North than in the South in each of the three pay-roll periods.

There was very little difference in the average weekly hours of female workers between the North and South, whether applied to all female employees, those in each of the broad occupational groupings, or store clerks (the only individual occupation for which there are comparable data).

Comparisons between male and female employees in occupations involving approximately the same skill show that the average weekly hours were greater for males than for females. The weekly working-time differential for unskilled direct labor was 6.7 hours in March 1933, 4.4 in September 1933, and 3.3 in December 1934 in the North, and 6.0 hours in March 1933, 2.5 in September 1933, and 1.6 in December 1934 in the South. Male cake wrappers and packers in the North averaged 0.8 hour more per week than females in March and September 1933 and 2.6 hours more in December 1934. For office clerks in the North, the differential amounted to 3.2 hours in March 1933, 1.8 in September 1933, and 0.4 in December 1934.

Average Weekly Hours and Size of City

The data covering average weekly hours according to size of city, including the percentages of change for the three periods covered, will be found in table 31. This table shows that in March 1933 there was

⁶¹ See table 30.

a tendency for the average weekly hours to be slightly greater in the cities of less than 250,000. This was largely eliminated by September 1933 and December 1934, due to the leveling process caused by the President's Reemployment Agreement and the code.

TABLE 31.—Average weekly hours by size of city as to region and sex

Region, sex, and size of city	Average weekly hours			Percentage of change		
	March 1933	September 1933	December 1934	March to September 1933	September 1933 to December 1934	March 1933 to December 1934
<i>North</i>						
Males: ¹						
250,000 and over.....	47.5	42.3	39.6	-10.9	-6.4	-16.6
50,000 and under 250,000.....	50.1	43.9	39.4	-12.4	-10.3	-21.4
Under 50,000.....	50.1	42.5	39.8	-15.2	-6.4	-20.6
Total.....	48.0	42.6	39.6	-11.2	-7.0	-17.5
Females:						
250,000 and over.....	42.4	39.4	37.3	-7.1	-5.3	-12.0
50,000 and under 250,000.....	44.7	41.2	38.2	-7.8	-7.3	-14.5
Under 50,000.....	(²)	(²)	(²)	(²)	(²)	(²)
Total.....	42.8	39.6	37.4	-7.5	-5.6	-12.6
<i>South</i>						
Males: ¹						
250,000 and over.....	49.0	43.1	39.6	-12.0	-8.1	-19.2
50,000 and under 250,000.....	52.1	43.6	40.0	-16.3	-8.3	-23.2
Under 50,000.....	50.3	42.3	40.6	-15.9	-4.0	-19.3
Total.....	50.5	43.2	39.9	-14.5	-7.6	-21.0
Females:						
250,000 and over.....	40.0	39.1	37.4	-2.2	-4.3	-6.5
50,000 and under 250,000.....	44.6	40.2	38.2	-9.9	-5.0	-14.3
Under 50,000.....	(²)	(²)	(²)	(²)	(²)	(²)
Total.....	43.0	40.0	38.2	-7.0	-4.5	-11.2

¹ Excludes driver-salesmen.

² Not enough workers to justify the computation of an average.

Average Weekly Hours in Union and Nonunion shops

Table 32, covering only male workers engaged in direct labor in the North, shows the average weekly hours of employees classified according to skill in union and nonunion shops.⁶² The average weekly hours in union establishments were appreciably lower than in nonunion establishments. The advantage was most marked in March 1933, or prior to the President's Reemployment Agreement and code. Unskilled employees in both types of shops are largely unorganized, and little difference appears in their average weekly hours. The average weekly working time of skilled workers in nonunion shops, however, was materially greater than that of workers in the same occupations in union shops, the difference being 6.7 hours in March 1933, 2.5 hours in September 1933, and 4.1 hours in December 1934. Average weekly hours of semiskilled employees in union shops was 3.5 hours less than in nonunion shops in March 1933, but in September 1933 and December 1934 the working time of semiskilled workers in nonunion shops was only slightly more than in union shops.

In union shops, the average weekly hours of semiskilled and skilled workers were about the same, but those of unskilled workers were

⁶² See p. 23.

longer. The average weekly working time of unskilled workers exceeded that of skilled workers by 4.2 hours in March 1933, 1.2 hours in September 1933, and 3.0 hours in December 1934.

In the nonunion shops, the weekly hours of all three classes showed only minor differences, although the semiskilled workers averaged somewhat shorter hours than either of the other two groups.

TABLE 32.—Average weekly hours of male employees in North engaged in direct labor by union and nonunion shops and skill

Type of shop and skill	Average weekly hours			Percentage of change		
	March 1933	September 1933	December 1934	March to September 1933	September 1933 to December 1934	March 1933 to December 1934
Union shops:						
Skilled.....	42.3	39.9	35.4	-5.7	-11.3	-16.3
Semiskilled.....	42.8	40.6	36.6	-5.1	-9.9	-14.5
Unskilled.....	46.5	41.1	38.4	-11.6	-6.6	-17.4
Total.....	43.2	40.3	36.3	-6.7	-9.9	-16.0
Nonunion shops:						
Skilled.....	49.0	42.4	39.5	-13.5	-6.8	-19.4
Semiskilled.....	46.3	40.7	37.3	-12.1	-8.4	-19.4
Unskilled.....	48.4	41.7	38.1	-13.8	-8.6	-21.3
Total.....	48.0	41.7	38.5	-13.1	-7.7	-19.8

Average Weekly Hours and Degree of Mechanization

One of the controversial issues in connection with the framing of the code for the baking industry centered about the problem of fixing maximum weekly hours for bakeries with varying stages of mechanization. The substitute provision of the President's Reemployment Agreement relating to maximum hours provided for a 44-hour week in mechanical shops and a 50-hour week in handicraft shops. The code set up a maximum of 48 hours for "handicraft" bakeries and of 40 hours for "other than handicraft" bakeries, although it was contended that another class—"semihandicraft" shops—should be established and allowed a maximum of 44 hours a week. In other words, the maximum hours would be 40 for handicraft, 44 for semihandicraft, and 48 for mechanical shops.⁵³ In view of this suggestion, it is important to see what changes occurred in the average weekly hours for the three types of shops during the periods under consideration. These data, covering only employees engaged in direct labor and classified by region and sex, appear in table 33.

This table shows that in March 1933, prior to the President's Reemployment Agreement and the code, male employees in handicraft shops in the North worked on the average 3.5 hours more per week than those in semihandicraft bakeries and 4.2 hours more per week than those in mechanical bakeries. The difference between the weekly hours in semihandicraft and mechanical establishments was not material. In September, with the industry operating under the President's Reemployment Agreement, this spread was increased. The working time in handicraft bakeries was 5.1 hours a week longer

⁵³ See p. 23.

than in the semihandicraft shops and 7.4 hours a week longer than in the mechanized establishments. At the same time, the average was 2.3 hours more in semihandicraft shops than in mechanical bakeries. The relationship was much the same in December 1934.

TABLE 33.—Average weekly hours in bakeries classified by degree of mechanization as to region and sex¹

Region, sex, and degree of mechanization	Average weekly hours			Percentage of change		
	March 1933	September 1933	December 1934	March to September 1933	September 1933 to December 1934	March 1933 to December 1934
<i>North</i>						
Males:						
Handicraft.....	50.7	48.4	44.9	-4.5	-7.2	-11.4
Semihandicraft.....	47.2	43.3	40.3	-8.3	-5.8	-13.6
Mechanical.....	46.5	41.0	37.4	-11.8	-8.8	-19.6
Total.....	48.0	42.6	39.6	-11.2	-7.0	-17.5
Females:						
Handicraft.....	(?)	(?)	(?)	(?)	(?)	(?)
Semihandicraft.....	41.5	38.7	36.6	-6.7	-5.4	-11.8
Mechanical.....	41.8	38.0	35.1	-9.1	-7.6	-16.0
Total.....	42.8	39.6	37.4	-7.5	-5.6	-12.6
<i>South</i>						
Males:						
Handicraft.....	44.6	44.4	44.1	-.4	-.7	-1.1
Semihandicraft.....	52.3	45.3	38.7	-13.4	-14.6	-26.0
Mechanical.....	49.8	42.4	38.7	-14.9	-8.7	-22.3
Total.....	50.5	43.2	39.9	-14.5	-7.6	-21.0
Females:						
Handicraft.....	(?)	(?)	(?)	(?)	(?)	(?)
Semihandicraft.....	(?)	(?)	(?)	(?)	(?)	(?)
Mechanical.....	39.2	38.1	35.7	-2.8	-6.3	8.9
Total.....	43.0	40.0	38.2	-7.0	-4.5	-11.2

¹ Includes only employees engaged in direct labor.

² Not enough workers to justify the computation of an average.

In the South, a somewhat different situation was found. The male employees in handicraft bakeries in this region in March 1933 worked on the average 5.2 hours per week less than those in mechanical bakeries, but by September under the President's Reemployment Agreement the situation was reversed, and the workers in handicraft shops worked 2 hours more than those in mechanical establishments. By December 1934 the differential had risen to 5.4 hours. The southern semihandicraft bakeries averaged more hours per week than mechanical shops both in March and September 1933 when no specific definition of a mechanical bakery existed. This differential, however, disappeared by December 1934, when the code classed mechanical and semihandicraft shops together.

Type of Distribution and Average Weekly Hours

In both the North and South, the employees in the smaller establishments, such as retail and house-to-house or local wholesale, worked, on the whole, longer hours per week than those in the larger multi-State, multiple-unit retail, and chain-store bakeries. In March 1933 the average weekly hours of workers in retail and house-to-house

shops were less than those of employees in local wholesale bakeries, whereas in September 1933 and December 1934 the weekly working time of employees in retail and house-to-house establishments exceeded that of workers in local wholesale shops. These facts are brought out by table 34, which shows the average weekly hours according to type of distribution by region and sex for the three pay-roll periods.

TABLE 34.—Average weekly hours in bakeries classified by type of distribution as to region and sex

Region, sex, and type of distribution	Average weekly hours			Percentage of change		
	March 1933	September 1933	December 1934	March to September 1933	September 1933 to December 1934	March 1933 to December 1934
<i>North</i>						
Males: ¹						
Retail and house-to-house.....	48.2	43.0	40.3	-10.8	-6.3	-16.4
Local wholesale.....	49.1	43.4	39.6	-11.6	-8.8	-19.3
Multi-State, multiple-unit retail, and chain store.....	47.2	42.0	39.4	-11.0	-6.2	-16.5
Total.....	48.0	42.6	39.6	-11.2	-7.0	-17.5
Females:						
Retail and house-to-house.....	42.4	40.3	39.1	-5.0	-3.0	-7.8
Local wholesale.....	46.4	40.3	38.2	-13.1	-5.2	-17.7
Multi-State, multiple-unit retail, and chain store.....	41.1	39.0	36.4	-5.1	-6.7	-11.4
Total.....	42.8	39.6	37.4	-7.5	-5.6	-12.6
<i>South</i>						
Males: ¹						
Retail and house-to-house.....	48.8	47.4	41.6	-2.9	-12.2	-14.8
Local wholesale.....	51.4	43.1	40.1	-16.1	-7.0	-22.0
Multi-State, multiple-unit retail, and chain store.....	49.7	42.3	39.1	-14.9	-7.6	-21.3
Total.....	50.5	43.2	39.9	-14.5	-7.6	-21.0
Females:						
Retail and house-to-house.....	44.1	41.8	40.0	-5.2	-4.3	-9.3
Local wholesale.....	46.9	41.8	39.3	-10.9	-6.0	-16.2
Multi-State, multiple-unit retail, and chain store.....	38.2	37.4	36.1	-2.1	-3.5	-5.5
Total.....	43.0	40.0	38.2	-7.0	-4.5	-11.2

¹ Excludes driver-salesmen.

Kind of Product and Average Weekly Hours

Male employees in bread shops in the North worked much longer hours than those in specialty bakeries, the actual differential amounting to 11.7 hours in March 1933, 5.6 hours in September 1933, and 6.1 hours in December 1934. There was little variation in the working time of males in bread shops and those in cake shops. Likewise, the differences between the average weekly hours of males in the South in bread and cake bakeries were not large. Among females in both the North and South, the average weekly hours were greater in bread shops than in cake shops. The figures in table 35 give the average weekly hours in bakeries according to type of product by region and sex for the three pay-roll periods for which information was obtained.

Comparisons With 1931

In the fall of 1931, the average weekly hours of workers in bakeries⁵⁴ averaged 53.2. By December 1934 this average had dropped to 43.5, a decline of 9.7 hours or 18.2 percent.⁵⁵ The decrease in average weekly hours was greater for males (from 53.8 to 44.3) than for females (from 44.9 to 37.5). Thus the average for males decreased 9.5 hours or 17.7 percent, whereas the average for females declined 7.4 hours or 16.5 percent.

TABLE 35.—Average weekly hours in bakeries classified by kind of product as to region and sex

Region, sex, and kind of product	Average weekly hours			Percentage of change		
	March 1933	September 1933	December 1934	March to September 1933	September 1933 to December 1934	March 1933 to December 1934
<i>North</i>						
Males: ¹						
Bread.....	48.5	42.8	39.7	-11.8	-7.2	-18.1
Cake, sweet goods, and pie, including cake specialties.....	47.0	42.5	40.0	-9.6	-5.9	-14.9
Bread specialties.....	36.8	37.2	33.6	+1.1	-9.7	-8.7
Total.....	48.0	42.6	39.6	-11.2	-7.0	-17.5
Females:						
Bread.....	43.5	40.8	39.2	-6.2	-3.9	-9.9
Cake, sweet goods, and pie, including cake specialties.....	41.8	38.4	35.8	-8.1	-6.8	-14.4
Bread specialties.....	(²)	(²)	(²)	(²)	(²)	(²)
Total.....	42.8	39.6	37.4	-7.5	-5.6	-12.6
<i>South</i>						
Males: ¹						
Bread.....	50.7	43.2	39.7	-14.8	-8.1	-21.7
Cake, sweet goods, and pie, including cake specialties.....	48.4	43.9	41.2	-9.3	-6.2	-14.9
Bread specialties.....	(³)	(³)	(³)	(³)	(³)	(³)
Total.....	50.5	43.2	39.9	-14.5	-7.6	-21.0
Females:						
Bread.....	43.1	40.7	39.0	-5.6	-4.2	-9.5
Cake, sweet goods, and pie, including cake specialties.....	42.8	39.0	37.0	-8.9	-5.1	-13.6
Bread specialties.....	(³)	(³)	(³)	(³)	(³)	(³)
Total.....	43.0	40.0	38.2	-7.0	-4.5	-11.2

¹ Excludes driver-salesmen.

² Not enough workers to justify the computation of an average.

³ Not available.

⁵⁴ Excludes pie departments or establishments.

⁵⁵ Figures for December 1934 also include driver-salesmen.

Chapter V.—Weekly Earnings

Changes in Country as a Whole

The curtailed working time was more than offset by the increases in hourly wage rates, and as a result the weekly earnings of employees in bread bakeries advanced between March 1933 and December 1934. The increase, however, was relatively moderate, as, against an average of \$22.84 in March 1933, the weekly earnings rose to \$23.24 in September 1933 and \$23.86 in December 1934. (See table 36 and chart 7.) For the period as a whole, the increase in weekly earnings was greater both absolutely and relatively in the South than in the North, and female employees profited relatively more than males. Among female employees in the South, the average weekly earnings advanced 20 percent between March 1933 and December 1934. This compares with an advance of 4.6 percent for male workers in the North.

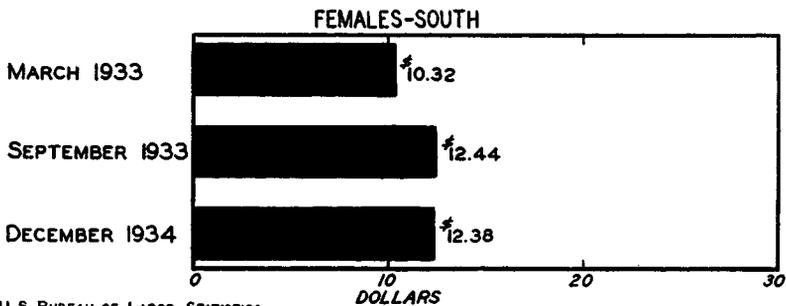
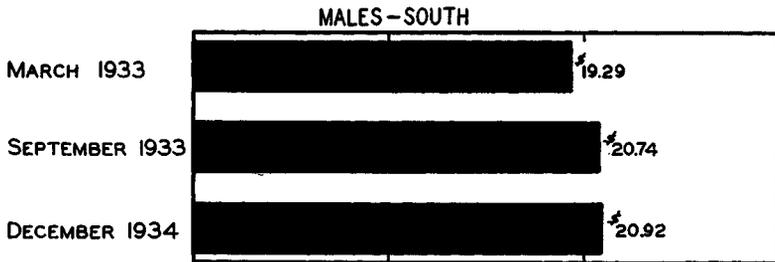
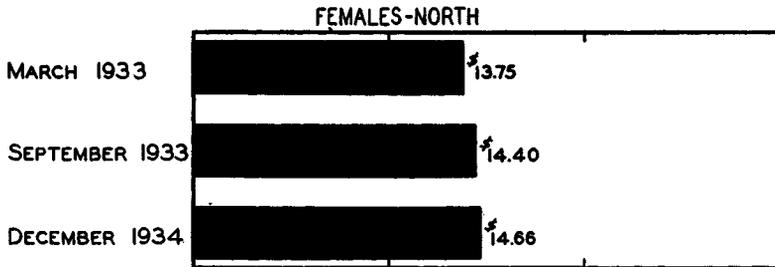
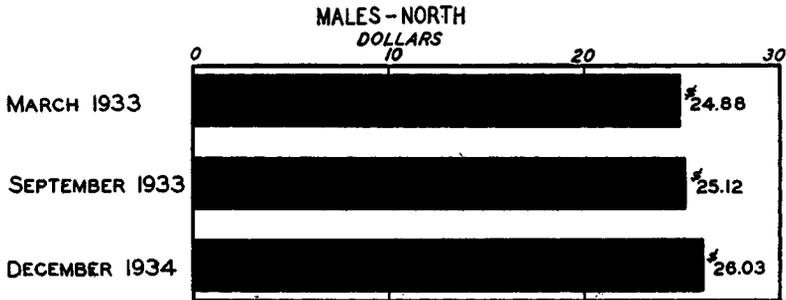
These changes in weekly earnings indicated by the survey are corroborated by the index numbers of average weekly earnings in the entire industry, including biscuit and crackers, which are compiled monthly by the Division of Employment and Pay Rolls of the Bureau of Labor Statistics. According to these index numbers (see table 37), weekly earnings were at the lowest point (81.1) in March 1933. Since that time, with the exception of a few minor fluctuations, the trend was gradually upward, and in December 1934 the index stood at 87.7, a cumulative gain of 8.1 percent since March 1933. This may be compared with an advance of 8.8 percent, as indicated in the weekly earnings of the workers covered in this survey.

TABLE 36.—Average weekly earnings in bread industry by region and sex

Region and sex	Average weekly earnings			Percentage of change		
	March 1933	September 1933	December 1934	March to September 1933	September 1933 to December 1934	March 1933 to December 1934
United States:						
Males	\$24.10	\$24.45	\$25.24	+1.5	+3.2	+4.7
Females	13.15	14.04	14.23	+6.8	+1.4	+8.2
Total	22.84	23.24	23.86	+1.8	+2.7	+4.5
North:						
Males	24.88	25.12	26.03	+1.0	+3.6	+4.6
Females	13.75	14.40	14.66	+4.7	+1.8	+6.6
Total	23.65	23.92	24.66	+1.1	+3.1	+4.3
South:						
Males	19.29	20.74	20.92	+7.5	+ .9	+8.4
Females	10.32	12.44	12.38	+20.5	- .5	+20.0
Total	18.05	19.61	19.64	+8.6	+ .2	+8.8

CHART 7

AVERAGE WEEKLY EARNINGS IN BREAD INDUSTRY BY REGION AND SEX, MARCH 1933, SEPTEMBER 1933, AND DECEMBER 1934



U. S. BUREAU OF LABOR STATISTICS

TABLE 37.—Index numbers of average weekly earnings in entire baking industry¹ in the United States, by months, 1925-35²

[January 1925=100]

Month	1925	1926	1927	1928	1929	1930	1931	1932	1933	1934	1935
January.....	100.0	102.6	102.8	103.1	102.5	105.1	101.9	94.9	84.2	84.9	85.9
February.....	98.3	103.7	104.2	104.2	103.4	105.5	101.7	94.5	82.7	86.0	86.0
March.....	100.8	102.7	104.1	104.2	103.1	105.0	101.1	93.5	81.1	84.9	86.4
April.....	100.2	101.5	103.6	101.9	102.7	105.6	99.9	90.6	81.8	83.8	87.2
May.....	103.0	104.3	105.0	104.0	105.3	105.6	100.6	89.8	82.2	85.9	88.0
June.....	101.9	103.4	103.5	103.9	104.7	105.7	100.3	89.2	82.7	86.0	89.0
July.....	100.9	102.6	103.6	103.6	104.3	104.6	98.6	86.9	83.8	86.2	89.4
August.....	100.7	102.0	103.3	103.4	104.2	103.7	97.3	86.2	82.5	86.2	87.5
September.....	101.2	102.6	103.2	103.3	104.7	105.1	97.6	87.9	84.6	87.9	90.6
October.....	101.4	102.4	103.1	103.0	104.6	103.8	96.9	87.0	83.9	86.5	89.8
November.....	100.9	102.4	103.4	103.3	104.6	103.3	96.5	85.6	84.4	87.3	89.7
December.....	102.5	103.6	102.7	103.0	104.5	101.9	95.3	84.2	84.9	87.7	90.3

¹ Includes biscuit and crackers.² Compiled by the Division of Employment and Pay Rolls.

Changes in Percentage Distribution of All Workers in Bread Industry

Although the increases in average weekly earnings between March 1933 and December 1934 were not large, significant changes are shown in the distribution of individual employees according to weekly earnings. The percentage distribution of all workers in the bread industry is given in table 38 and chart 8.

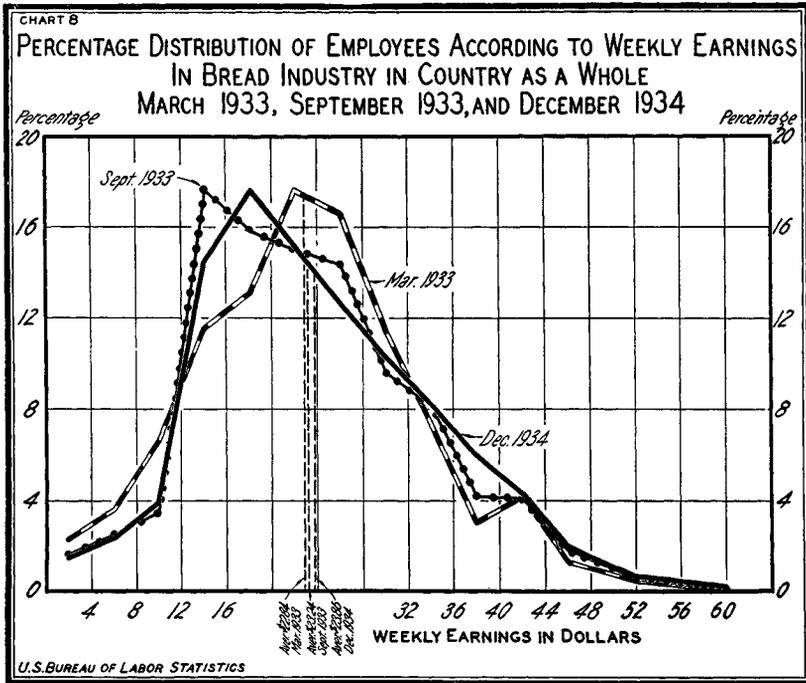
TABLE 38.—Percentage distribution of employees according to weekly earnings in bread industry in country as a whole

Weekly earnings	March 1933		September 1933		December 1934	
	Simple percentage	Cumulative percentage	Simple percentage	Cumulative percentage	Simple percentage	Cumulative percentage
Under \$4.....	2.3	2.3	1.7	1.7	1.6	1.6
\$4 and under \$8.....	3.7	6.0	2.5	4.2	2.4	4.0
\$8 and under \$12.....	6.7	12.7	3.5	7.7	3.9	7.9
\$12 and under \$16.....	11.6	24.3	17.7	25.4	14.4	22.3
\$16 and under \$20.....	13.2	37.5	15.9	41.3	17.6	39.9
\$20 and under \$24.....	17.6	55.1	15.0	56.3	15.1	55.0
\$24 and under \$28.....	16.6	71.7	14.3	70.6	12.6	67.6
\$28 and under \$32.....	11.4	83.1	9.6	80.2	10.2	77.8
\$32 and under \$36.....	7.3	90.4	8.2	88.4	8.2	86.0
\$36 and under \$40.....	3.0	93.4	4.2	92.6	5.9	91.9
\$40 and under \$44.....	4.2	97.6	4.1	96.7	4.3	96.2
\$44 and under \$48.....	1.3	98.9	1.8	98.5	1.9	98.1
\$48 and under \$56.....	.9	99.8	1.2	99.7	1.4	99.5
\$56 and over.....	.2	100.0	.3	100.0	.5	100.0

Between March and September 1933, the percentage of workers earning under \$12 a week declined from 12.7 to 7.7 percent. The number receiving \$20 and under \$32 likewise declined from 45.6 percent in March to 38.9 in September. These changes were accompanied by an increase in the proportion of workers earning \$12

and less than \$20 a week. As against 24.8 percent in this group in March, there were 33.6 percent earning between \$12 and \$20 a week in September. At the same time, 19.8 percent of the workers were earning \$32 and over in September, as compared with 16.9 percent in March.

In contrast to the shifts that occurred between March and September 1933, the percentage of workers in the different wage groups in December 1934 was much the same as in September 1933. In December 1934, however, there was a slight increase in the percentage of workers earning \$36 or more a week.



Changes in Percentage Distribution by Region and Sex

In both the northern and southern States, the percentage of bakery employees earning less than \$12 a week declined between March and September 1933. Moreover, female as well as male workers profited by the change. In the North, the percentage of male workers earning less than \$12 a week declined from 7.3 in March to 5.2 in September, and the percentage of female workers in this wage group declined from 38.9 to 22.6. The shift was even more striking in the South, as, against 17.2 percent of the male employees earning less than \$12 a week in March, only 7.8 percent were in this group in September, and for female workers the decline was from 66.5 to 25.9 percent. These changes are shown in table 39.

TABLE 39.—Percentage distribution of employees according to weekly earnings by region and sex

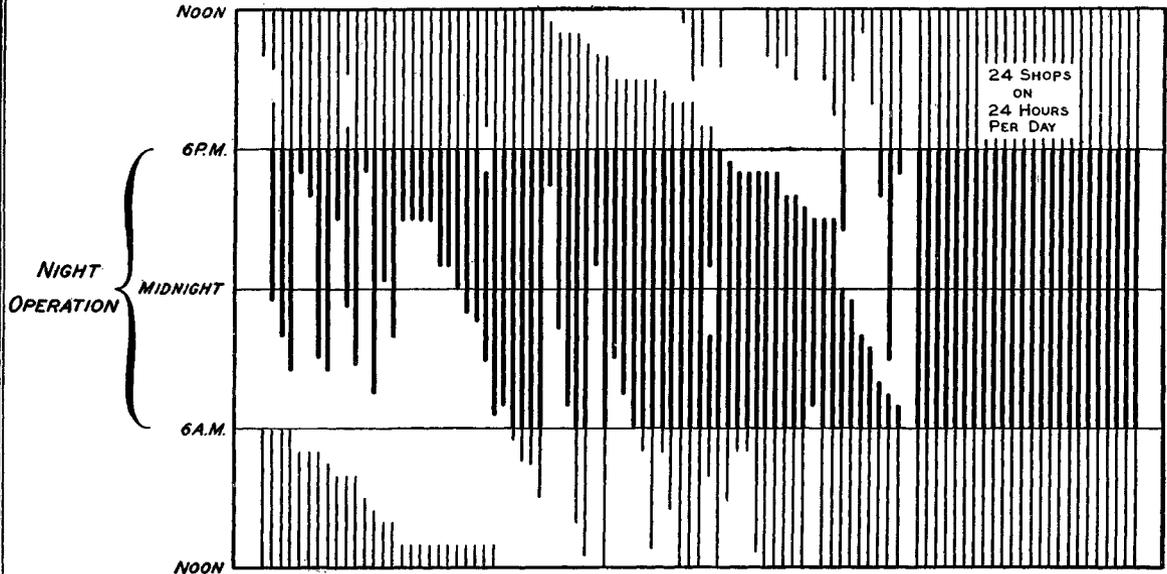
Region, sex, and weekly earnings	March 1933		September 1933		December 1934	
	Simple percentage	Cumulative percentage	Simple percentage	Cumulative percentage	Simple percentage	Cumulative percentage
<i>North</i>						
Males:						
Under \$4	1.6	1.6	1.2	1.2	1.2	1.2
\$4 and under \$8	2.3	3.9	2.2	3.4	2.0	3.2
\$8 and under \$12	3.4	7.3	1.8	5.2	1.8	5.0
\$12 and under \$16	8.6	15.9	10.9	16.1	7.4	12.4
\$16 and under \$20	12.1	28.0	16.0	32.1	17.1	29.5
\$20 and under \$24	18.2	46.2	16.0	48.1	16.1	45.6
\$24 and under \$28	19.0	65.2	16.6	64.7	14.4	60.0
\$28 and under \$32	13.8	79.0	11.3	76.0	12.4	72.4
\$32 and under \$36	9.0	88.0	10.0	86.0	10.1	82.5
\$36 and under \$40	3.6	91.6	4.9	90.9	7.3	89.8
\$40 and under \$44	5.3	96.9	5.1	96.0	5.5	95.3
\$44 and under \$48	1.7	98.6	2.2	98.2	2.4	97.7
\$48 and under \$56	1.1	99.7	1.5	99.7	1.7	99.4
\$56 and over	.3	100.0	.3	100.0	.6	100.0
Females:						
Under \$4	5.4	5.4	4.1	4.1	3.7	3.7
\$4 and under \$8	9.0	14.4	4.5	8.6	3.8	7.5
\$8 and under \$12	24.5	38.9	14.0	22.6	13.2	20.7
\$12 and under \$16	26.2	65.1	46.7	69.3	43.3	64.0
\$16 and under \$20	18.5	83.6	16.3	85.6	22.4	86.4
\$20 and under \$24	11.6	95.2	10.1	95.7	9.3	95.7
\$24 and under \$28	3.1	98.3	2.7	98.4	2.8	98.5
\$28 and under \$32	1.0	99.3	.6	99.0	.5	99.0
\$32 and under \$36	.3	99.6	.6	99.6	.5	99.5
\$36 and under \$40	.3	99.9	.2	99.8	.3	99.8
\$40 and under \$44	.1	100.0	.1	99.9	.1	99.9
\$44 and under \$48			.1	100.0	.1	100.0
<i>South</i>						
Males:						
Under \$4	3.3	3.3	2.2	2.2	1.7	1.7
\$4 and under \$8	5.2	8.5	2.2	4.4	2.5	4.2
\$8 and under \$12	8.7	17.2	3.4	7.8	5.1	9.3
\$12 and under \$16	17.6	34.8	28.6	36.4	24.2	33.5
\$16 and under \$20	16.7	51.5	16.6	53.0	19.1	52.6
\$20 and under \$24	20.5	72.0	15.0	68.0	16.0	68.6
\$24 and under \$28	13.5	85.5	11.9	79.9	11.7	80.3
\$28 and under \$32	6.7	92.2	7.7	87.6	7.0	87.3
\$32 and under \$36	4.0	96.2	4.9	92.5	5.4	92.7
\$36 and under \$40	2.0	98.2	3.5	96.0	3.4	96.1
\$40 and under \$44	1.4	99.6	2.0	98.0	1.7	97.8
\$44 and under \$48	.4	100.0	.8	98.8	.8	98.6
\$48 and under \$56	(¹)		.8	99.6	.9	99.5
\$56 and over			.4	100.0	.5	100.0
Females:						
Under \$4	9.1	9.1	3.5	3.5	4.4	4.4
\$4 and under \$8	22.8	31.9	9.0	12.5	7.2	11.6
\$8 and under \$12	34.6	66.5	13.4	25.9	21.0	32.6
\$12 and under \$16	20.1	86.6	62.7	88.6	54.6	87.2
\$16 and under \$20	7.0	93.6	6.2	94.8	7.6	94.8
\$20 and under \$24	4.3	97.9	4.0	98.8	3.6	98.4
\$24 and under \$28	1.8	99.7	1.0	99.8	1.4	99.8
\$28 and under \$32	.3	100.0				
\$32 and under \$36			.2	100.0	.2	100.0

¹ Less than 1/10 of 1 percent.

A further examination of the distribution for males in the North shows that the percentage of employees earning \$12 and under \$20 a week increased from 20.7 to 26.9 percent between March and September 1933. During the same period, the percentage of male employees in northern bakeries earning \$20 and less than \$32 a week declined from 51.0 to 43.9, but those receiving \$32 a week and over increased

CHART 9

PROPORTION OF DAY AND NIGHT OPERATION IN 93 BAKERIES, FOR 7,569 BAKE SHOP EMPLOYEES, IN 28 STATES, 1934



*EACH VERTICAL LINE REPRESENTS ONE SHOP. BROKEN INTERVALS
IN VERTICAL LINES ARE HOURS DURING WHICH SHOP IS NOT OPERATING*

U. S. BUREAU OF LABOR STATISTICS

from 21.0 to 24.0 percent. Likewise, the percentage of male workers in the South increased from 17.6 to 28.6 in the class of \$12 and less than \$16, decreased from 50.7 to 43.5 in the classes of \$16 and under \$28, and increased from 14.5 to 20.1 in the classes of \$28 and over.

Similarly, the percentage of female workers in the North earning \$12 and under \$16 per week increased from 26.2 in March to 46.7 in September 1933. This was accompanied by a decrease in the percentage of northern females earning \$16 and over from 34.9 in March to 30.7 in September. The same shift took place among the female employees in the South, where the number of workers earning \$12 and under \$16 per week increased from 20.1 percent in March to 62.7 percent in September, the decrease in the percentage of those earning \$16 and over being from 13.4 in March to 11.4 in September.

The gain in the percentages in the upper brackets of males in both the North and South is clearly due to the inclusion of driver-salesmen. The average hourly earnings of these employees increased under the President's Reemployment Agreement, but their weekly hours did not change materially. This resulted in higher weekly earnings for them, thus increasing the percentage of male employees in the upper brackets.

As for the other employees, both male and female, all were affected more or less uniformly by the reduction of weekly hours, but the increases in average hourly earnings were greater on the whole for the lower paid than for the higher paid workers. This accounts for the shift of employees to the classes of \$12 and under \$20 for males in the North and to the class of \$12 and less than \$16 for females in the North and for both males and females in the South from the classes immediately adjoining on both sides.

There is a striking similarity in the percentage of workers in each of the groups between September 1933 and December 1934. As the increases in average hourly earnings and the reductions in weekly hours due to the code were not great, the result was smaller changes in the weekly earnings and a relatively insignificant shifting in the percentage distributions between the two periods. The chief exceptions to this were the driver-salesmen, whose average hourly earnings again increased without noticeable changes in weekly hours, thus causing another increase in their weekly earnings. As a result, there was a further small increase in the percentages of workers in the higher brackets. This was especially noticeable among the males in the North, the percentage earning \$28 and over a week having increased from 35.3 in September 1933 to 40.0 in December 1934.

Changes in Averages by Broad Occupational Groupings

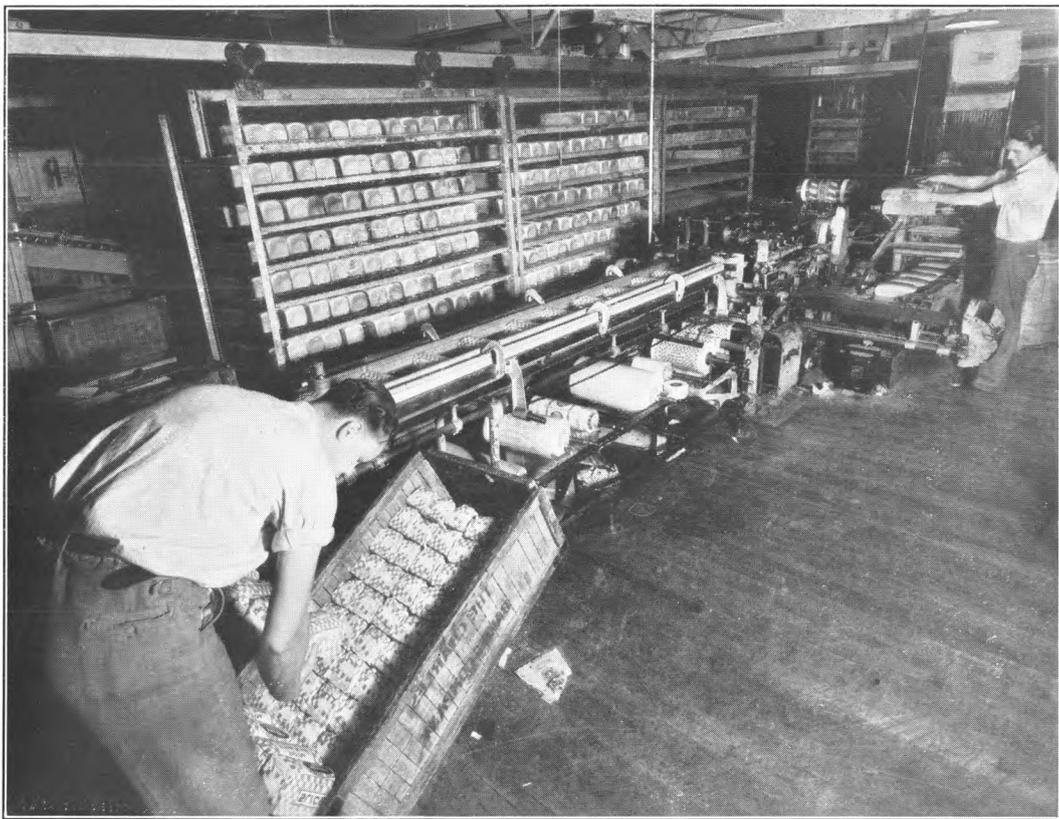
The increases in average weekly earnings by broad occupational groupings are shown in table 40.

The small gain in the average weekly earnings of male workers in the North was largely due to increased earnings in a single occupation, namely, driver-salesmen. Although each of the other broad occupational groupings showed either no change or a small reduction between March and September 1933, the average weekly earnings of driver-salesmen increased 9.5 percent. From September 1933 to December 1934, the average weekly earnings of driver-salesmen advanced an additional 9.5 percent, and the earnings of the other occupational groupings show increases of less than 2 percent.



Courtesy of Washington Star Newspaper Co.

PLATE 3.—BREAD DUMPING FROM TRAVELING OVEN.



Courtesy of Charles Schneider Baking Co.

PLATE 4.—SLICING, WRAPPING, AND PACKING OF BREAD.

TABLE 40.—Average weekly earnings by broad occupational groupings as to region and sex

Region, sex, and broad occupational grouping	Average weekly earnings			Percentage of change		
	March 1933	September 1933	December 1934	March to September 1933	September 1933 to December 1934	March 1933 to December 1934
North						
Males:						
Direct labor:						
Skilled.....	\$26.19	\$25.35	\$25.84	-3.2	+1.9	-1.3
Semiskilled.....	17.87	17.87	18.18		+1.7	+1.7
Unskilled.....	17.34	17.88	18.09	-3	+1.2	+8
Indirect labor:						
Driver-salesmen.....	27.47	30.09	32.96	+9.5	+9.5	+20.0
Other.....	25.60	25.02	25.30	-2.3	+1.1	-1.2
Total.....	24.88	25.12	26.03	+1.0	+3.6	+4.6
Females:						
Direct labor: Unskilled...	10.96	11.95	12.53	+9.0	+4.9	+14.3
Indirect labor: Other.....	15.13	15.81	16.16	+4.5	+2.2	+6.8
Total.....	13.75	14.40	14.66	+4.7	+1.8	+6.6
South						
Males:						
Direct labor:						
Skilled.....	20.64	21.26	20.65	+3.0	-2.9	(1)
Semiskilled.....	11.92	13.60	14.25	+14.1	+4.8	+19.5
Unskilled.....	12.12	13.81	14.15	+13.9	+2.5	+16.7
Indirect labor:						
Driver-salesmen.....	22.80	27.93	28.13	+22.5	+7	+23.4
Other.....	19.27	19.63	19.72	+1.9	+5	+2.3
Total.....	19.29	20.74	20.92	+7.5	+9	+8.4
Females:						
Direct labor: Unskilled...	8.10	11.28	11.04	+39.3	-2.1	+36.3
Indirect labor: Other.....	11.18	13.00	13.25	+16.3	+1.9	+18.5
Total.....	10.32	12.44	12.38	+20.5	-5	+20.0

¹ Less than 1/10 of 1 percent.

In the South, the result was slightly different. It is true that the largest percentage gain in average weekly earnings over the whole period was shown for driver-salesmen, whose hourly wage rates advanced but whose hours were unchanged. At the same time, the percentage gains in the earnings of semiskilled and unskilled workers were almost as large. The two last-mentioned groups are composed of the lower-paid workers.

In both the North and South, the average weekly earnings of semiskilled males were virtually the same as those of unskilled males in each of the pay-roll periods covered, but the margin between these and the earnings of skilled males was substantial. In March 1933, the differential amounted to between \$8 and \$9. As the average weekly earnings of skilled males remained practically stable from March 1933 to December 1934 and the earnings of semiskilled and unskilled workers advanced slightly, the differential was narrowed somewhat by December 1934.

In March 1933, a relatively small differential existed between driver-salesman and skilled males engaged in direct labor, the weekly earnings of the driver-salesmen averaging \$1.28 more a week than those of skilled workers in the North and \$2.16 more in the South. In September, the difference was \$4.74 in the North and \$6.67 in the South, and, by December 1934, the earnings of driver-salesmen were \$7.12 a week higher in the North and \$7.48 a week higher in the South. The large increase in the differential was due to the fact that the hours of driver-salesmen were not regulated by either the President's Reemployment Agreement or the code, and that those of skilled workers were so regulated.

Changes in Averages by Occupational Classes

Table 41 gives the average weekly earnings by individual occupations and small occupational groupings for each of the three pay-roll periods covered and the percentages of change between periods.

In the North, the changes from March 1933 to December 1934 in the average earnings per week of the 14 individual occupations of males in the direct labor group for which data are available ranged from a decrease of 86 cents for dividers or scalers to an increase of \$1.16 for pan greasers. Of the six occupations showing decreased earnings, four were skilled, one semiskilled, and one unskilled. The average weekly earnings of two skilled occupations increased, and gains are also shown for three semiskilled and three unskilled occupations.

Among the males in the South, the weekly earnings of five individual occupations in direct labor are available. All of these, with the exception of bench hands, show increases in weekly earnings between March 1933 and December 1934.

The changes in the weekly earnings in eight of the individual occupations in indirect labor in the North, outside of driver-salesmen, were also small, ranging from a decrease of 70 cents a week for office clerks to an increase of \$1.41 a week for the supervisory group. The average weekly earnings of driver-salesmen increased \$5.49 during the period.

Average weekly earnings of females in the North are available for six individual occupations. Increased weekly earnings were reported for each of these occupations. The gains ranged from 47 cents for stenographers, typists, telephone operators, etc., to \$2.03 for cake finishers. The only female occupation in the South for which separate figures are given is that of store clerks, and the earnings of these workers averaged \$2.55 more a week in December 1934 than in March 1933.

TABLE 41.—Average weekly earnings by occupational classes as to region and sex

Region, sex, and occupational class	Average weekly earnings			Percentage of change		
	March 1933	September 1933	December 1934	March to September 1933	September 1933 to December 1934	March 1933 to December 1934
<i>Males—North</i>						
Direct labor:						
Skilled:						
Bench hands or hand bakers.....	\$23.69	\$23.07	\$23.77	-2.6	+3.0	+0.3
Cake makers.....	26.19	25.64	26.23	-2.1	+2.3	+ .2
Dividers or scalers and rounders..	26.39	24.78	25.53	-6.1	+3.0	-3.3
Mixers.....	29.28	28.80	28.83	-1.6	+1	-1.5
Molders.....	23.59	22.25	22.91	-5.7	+3.0	-2.9
Ovenmen.....	28.59	27.93	28.41	-2.3	+1.7	- .6
Miscellaneous, skilled.....	23.25	22.89	23.75	-1.5	+3.8	+2.2
Total.....	26.19	25.35	25.84	-3.2	+1.9	-1.3
Semiskilled:						
Bench hands' or hand bakers' helpers.....	17.78	17.46	18.24	-1.8	+4.5	+2.6
General helpers.....	16.46	16.88	16.40	+2.6	-2.8	- .4
Mixers' helpers.....	17.75	18.29	18.72	+3.0	+2.4	+5.5
Ovenmen's helpers.....	18.05	18.09	18.86	+ .2	+4.3	+4.5
Miscellaneous, semiskilled.....	21.85	19.80	20.22	-9.4	+2.1	-7.5
Total.....	17.87	17.87	18.18		+1.7	+1.7
Unskilled:						
Bread packers.....	19.26	18.92	18.87	-1.8	- .3	-2.0
Bread wrappers, automatic.....	17.47	17.33	17.48	- .8	+ .9	+ .1
Cake wrappers and packers.....	16.30	16.26	17.18	- .2	+5.7	+5.4
Pan greasers.....	16.34	17.19	17.50	+5.2	+1.8	+7.1
Miscellaneous, unskilled.....	18.69	18.67	19.46	- .1	+4.2	+4.1
Total.....	17.34	17.88	18.09	- .3	+1.2	+ .8

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TABLE 41.—Average weekly earnings by occupational classes as to region and sex—Continued

Region, sex, and occupational class	Average weekly earnings			Percentage of change		
	March 1933	September 1933	December 1934	March to September 1933	September 1933 to December 1934	March 1933 to December 1934
<i>Males—North—Continued</i>						
Indirect labor:						
Driver-salesmen.....	\$27. 47	\$30. 09	\$32. 96	+9. 5	+9. 5	+20. 0
Other:						
Auditors, bookkeepers, etc.....	33. 77	33. 86	33. 83	+ 3	- 1	+ 2
Chauffeurs and drivers.....	23. 48	24. 47	24. 62	+4. 2	+ 6	+4. 9
Laborers.....	16. 59	17. 84	17. 56	+7. 5	-1. 6	+5. 8
Maintenance and repair, semi-skilled.....	20. 48	19. 59	20. 20	-4. 3	+3. 1	-1. 4
Maintenance and repair, skilled.....	27. 65	27. 33	28. 22	-1. 2	+3. 3	+2. 1
Office clerks.....	22. 02	21. 47	21. 32	-2. 5	- 7	-3. 2
Service, unskilled.....	17. 28	17. 04	16. 80	-1. 4	-1. 4	-2. 8
Supervisory, skilled.....	37. 74	37. 91	39. 15	+ 5	+3. 3	+3. 7
Miscellaneous, skilled.....	30. 32	29. 64	29. 67	-2. 2	+ 1	-2. 1
Miscellaneous, semiskilled.....	20. 14	19. 91	20. 95	-1. 1	+5. 2	+4. 0
Miscellaneous, unskilled.....	16. 89	16. 98	17. 10	+ 5	+ 7	+1. 2
Total.....	25. 60	25. 02	25. 30	-2. 3	+1. 1	-1. 2
<i>Females—North</i>						
Direct labor:						
Unskilled:						
Bread wrappers, hand.....	11. 72	13. 20	12. 21	+12. 6	-7. 5	+4. 2
Cake finishers.....	10. 76	11. 94	12. 79	+11. 0	+7. 1	+18. 9
Cake wrappers and packers.....	10. 92	11. 79	12. 47	+8. 0	+5. 8	+14. 2
Total.....	10. 96	11. 95	12. 53	+9. 0	+4. 9	+14. 3
Indirect labor:						
Other:						
Office clerks.....	17. 18	17. 69	17. 68	+3. 0	- 1	+2. 9
Stenographers, typists, telephone operators, etc.....	18. 90	18. 80	19. 37	- 5	+3. 0	+2. 5
Store clerks.....	13. 75	14. 49	14. 71	+5. 4	+1. 5	+7. 0
Miscellaneous.....	13. 39	14. 34	15. 17	+7. 1	+5. 8	+13. 3
Total.....	15. 13	15. 81	16. 16	+4. 5	+2. 2	+6. 8
<i>Males—South</i>						
Direct labor:						
Skilled:						
Bench hands or hand bakers.....	17. 39	17. 51	17. 19	+ 7	-1. 8	-1. 2
Ovenmen.....	21. 74	22. 49	22. 46	+3. 4	- 1	+3. 3
Miscellaneous, skilled.....	21. 80	21. 82	21. 68	+ 1	- 6	+ 6
Total.....	20. 64	21. 26	20. 65	+3. 0	-2. 9	(1)
Semiskilled:						
General helpers.....	9. 80	11. 71	12. 37	+19. 5	+5. 6	+26. 2
Ovenmen's helpers.....	13. 85	14. 34	14. 75	+3. 5	+2. 9	+6. 5
Miscellaneous, semiskilled.....	12. 26	14. 73	15. 35	+20. 1	+4. 2	+25. 2
Total.....	11. 92	13. 60	14. 25	+14. 1	+4. 8	+19. 5
Unskilled:						
Bread wrappers, automatic.....	12. 87	13. 88	14. 13	+7. 8	+1. 8	+9. 8
Miscellaneous, unskilled.....	11. 37	13. 72	14. 17	+20. 7	+3. 3	+24. 6
Total.....	12. 12	13. 81	14. 15	+13. 9	+2. 5	+16. 7
Indirect labor:						
Driver-salesmen.....	22. 80	27. 93	28. 13	+22. 5	+ 7	+23. 4
Other.....	19. 27	19. 63	19. 72	+1. 9	+ 5	+2. 3
<i>Females—South</i>						
Direct labor:						
Unskilled.....	8. 10	11. 28	11. 04	+39. 3	-2. 1	+36. 3
Indirect labor:						
Other:						
Store clerks.....	9. 45	11. 56	12. 00	+22. 3	+3. 8	+27. 0
Miscellaneous.....	12. 11	13. 72	13. 88	+13. 3	+1. 2	+14. 6
Total.....	11. 18	13. 00	13. 25	+16. 3	+1. 9	+18. 5

¹ Less than of 1/10 percent.

Regional and Sex Differentials in Averages by Occupations

Average weekly earnings were substantially higher in the North than in the South in each of the three pay-roll periods. For males, the differential was \$5.59 a week in March 1933, \$4.38 in September 1933, and \$5.11 in December 1934, and for female workers it was \$3.43 in March 1933, \$1.96 in September 1933, and \$2.28 in December 1934. (See table 36.)

Among the broad occupational groupings, the largest regional differential was for the "other" male workers in the indirect labor group. This amounted to \$6.33 in March 1933, \$5.39 in September 1933, and \$5.58 in December 1934. The smallest North-South differential was found among unskilled female employees classified as direct labor, the margin in favor of the northern workers being \$2.86 in March 1933, 67 cents in September 1933, and \$1.49 in December 1934. (See table 40.)

The average weekly earnings of bench hands or hand bakers, ovenmen, ovenmen's helpers, general helpers, and automatic bread wrappers, were also substantially higher in the North than in the South in each of the three pay-roll periods covered. The differential for the one female occupation, "store clerks", for which a regional comparison may be made, was appreciable, although the margin of difference decreased with each succeeding period. (See table 41.)

Weekly earnings of male employees were higher than those of females. This is brought out by a comparison of the data relating to unskilled workers classified as direct labor. This group covers occupations involving approximately the same skill for both males and females, and in both the North and the South the differential in favor of male workers was considerable. This also applies in the North to the two individual occupations, cake wrappers and office clerks, in which both sexes are represented.

Average Weekly Earnings and Size of City

As with hourly earnings, the weekly earnings of bakery employees are influenced by the size of the city in which they are employed. Table 42, with a single exception, shows higher average weekly earnings in the larger cities in both the North and the South. The one exception was in the South, where males in cities with a population of 50,000 and less than 250,000 received slightly higher earnings than those in cities of 250,000 and over. To a lesser extent the relative increases in average weekly earnings for the entire period also varied directly with the size of the city.

TABLE 42.—Average weekly earnings by size of city as to region and sex

Region, sex, and size of city	Average weekly earnings			Percentage of change		
	March 1933	September 1933	December 1934	March to September 1933	September 1933 to December 1934	March 1933 to December 1934
<i>North</i>						
Males:						
250,000 and over.....	\$25.59	\$25.86	\$26.83	+1.1	+3.8	+4.8
50,000 and under 250,000....	22.05	22.09	22.72	+ .2	+2.9	+3.0
Under 50,000.....	20.45	21.51	21.80	+5.2	+1.3	+6.6
Total.....	24.88	25.12	26.03	+1.0	+3.6	+4.6
Females:						
250,000 and over.....	14.15	14.74	14.88	+4.2	+ .9	+5.2
50,000 and under 250,000....	12.42	13.06	13.90	+5.2	+6.4	+11.9
Under 50,000.....	(¹)	(¹)	(¹)	(¹)	(¹)	(¹)
Total.....	13.75	14.40	14.66	+4.7	+1.8	+6.6
<i>South</i>						
Males:						
250,000 and over.....	19.07	20.84	21.04	+9.3	+1.0	+10.3
50,000 and under 250,000....	19.80	21.03	21.21	+6.2	+ .9	+7.1
Under 50,000.....	17.28	18.17	18.38	+5.2	+1.2	+6.4
Total.....	19.29	20.74	20.92	+7.5	+ .9	+8.4
Females:						
250,000 and over.....	10.38	12.40	12.63	+19.5	+1.9	+21.7
50,000 and under 250,000....	9.94	12.22	11.99	+22.9	-1.9	+20.6
Under 50,000.....	(¹)	(¹)	(¹)	(¹)	(¹)	(¹)
Total.....	10.32	12.44	12.38	+20.5	- .5	+20.0

¹ Not enough workers to justify the computation of an average.

Average Weekly Earnings in Union and Nonunion Shops

The average weekly earnings of male employees engaged in direct labor in the North by union and nonunion shops and degree of skill ⁶⁶ for the three pay-roll periods covered are shown in table 43.

Skilled and semiskilled workers in union shops received higher weekly earnings than those in nonunion bakeries, but the earnings of unskilled employees in nonunion shops were higher than in organized shops. The differentials were not large, however, except for the skilled workers. The weekly earnings of skilled workers in union establishments exceeded those in nonunion shops by \$7.78 in March 1933, \$6.26 in September 1933, and \$5.96 in December 1934. The narrowing of the differential was due to a decrease of 5.8 percent in the average weekly earnings in union bakeries between March and September 1933, as against a decrease of only 1.3 percent in nonunion establishments. The reduction between September 1933 and December 1934 was caused by a larger gain in average earnings in nonunion shops.

It will also be seen that, while in each kind of bakery, the figures indicate very little difference in the average weekly earnings between semiskilled and unskilled workers, there is a considerable differential between the unskilled and the skilled employees. This differential, however, was virtually twice as large in union as in nonunion shops.

⁶⁶ See p 25.

TABLE 43.—Average weekly earnings of male employees in North engaged in direct labor by union and nonunion shops and skill

Type of shop and degree of skill	Average weekly earnings			Percentage of change		
	March 1933	September 1933	December 1934	March to September 1933	September 1933 to December 1934	March 1933 to December 1934
Union shops:						
Skilled.....	\$31.59	\$29.77	\$29.98	-5.8	+0.7	-5.1
Semiskilled.....	18.97	18.89	19.65	-4	+4.0	+3.6
Unskilled.....	17.79	17.44	17.75	-2.0	+1.8	-2
Total.....	25.89	24.69	24.96	-4.6	+1.1	-3.6
Nonunion shops:						
Skilled.....	23.81	23.51	24.02	-1.3	+2.2	+9
Semiskilled.....	17.51	17.60	17.78	+5	+1.0	+1.5
Unskilled.....	18.04	18.01	18.19	-2	+1.0	+8
Total.....	20.73	20.42	20.64	-1.5	+1.1	-4

Average Weekly Earnings and Degree of Mechanization

In both North and South, the largest average weekly earnings were found generally in those shops which were most highly mechanized, with the existing differentials between mechanical and handicraft and between mechanical and semihandicraft shops increasing for the most part from March to September 1933 and from the latter month to December 1934. The data relating to average weekly earnings by degree of mechanization, which is limited to employees engaged only in direct labor, will be found in table 44.

TABLE 44.—Average weekly earnings in bakeries classified by degree of mechanization as to region and sex¹

Region, sex, and degree of mechanization	Average weekly earnings			Percentage of change		
	March 1933	September 1933	December 1934	March to September 1933	September 1933 to December 1934	March 1933 to December 1934
<i>North</i>						
Males:						
Handicraft.....	\$23.35	\$22.75	\$23.26	-2.6	+2.2	-0.4
Semihandicraft.....	23.10	23.10	23.63		+2.3	+2.3
Mechanical.....	25.03	25.30	26.67	+1.1	+5.4	+6.6
Total.....	24.88	25.12	26.03	+1.0	+3.6	+4.6
Females:						
Handicraft.....	(²)	(²)	(²)	(²)	(²)	(²)
Semihandicraft.....	13.35	14.04	14.68	+5.2	+4.6	+10.0
Mechanical.....	13.84	14.53	14.67	+5.0	+1.0	+6.0
Total.....	13.75	14.40	14.66	+4.7	+1.8	+6.6
<i>South</i>						
Males:						
Handicraft.....	15.98	17.07	18.67	+6.8	+9.4	+16.8
Semihandicraft.....	17.80	18.49	18.04	+3.9	-2.4	+1.3
Mechanical.....	19.52	20.99	21.17	+7.5	+9	+8.5
Total.....	19.29	20.74	20.92	+7.5	+9	+8.4
Females:						
Handicraft.....	(²)	(²)	(²)	(²)	(²)	(²)
Semihandicraft.....	(²)	(²)	(²)	(²)	(²)	(²)
Mechanical.....	10.45	12.69	12.49	+21.4	-1.6	+19.5
Total.....	10.32	12.44	12.38	+20.5	-5	+20.0

¹ Includes only employees engaged in direct labor.² Not enough workers to justify the computation of an average.

Type of Distribution and Average Weekly Earnings

That the type of distribution affects average weekly earnings to some extent is apparent from table 45. The male workers in both North and South in multi-State, multiple-unit retail, and chain-store bakeries received, on the whole, higher average weekly earnings than those in either retail and house-to-house or local wholesale establishments. In the North, male employees were better off in local wholesale than in retail and house-to-house shops, but in the South the reverse was true. For female workers, however, the retail and house-to-house bakeries paid the highest average weekly earnings in the North, and in the South earnings were highest in local wholesale shops.

TABLE 45.—Average weekly earnings in bakeries classified by type of distribution as to region and sex

Region, sex, and type of distribution	Average weekly earnings			Percentage of change		
	March 1933	September 1933	December 1934	March to September 1933	September 1933 to December 1934	March 1933 to December 1934
<i>North</i>						
Males:						
Retail and house-to-house.....	\$24.11	\$23.82	\$24.84	-1.2	+4.3	+3.0
Local wholesale.....	24.65	25.06	27.18	+1.7	+8.5	+10.3
Multi-State, multiple-unit retail, and chain store.....	25.32	25.64	26.52	+1.3	+3.4	+4.7
Total.....	24.88	25.12	26.03	+1.0	+3.6	+4.6
Females:						
Retail and house-to-house.....	14.29	15.15	15.24	+6.0	+ .6	+6.6
Local wholesale.....	13.52	14.11	14.33	+4.4	+1.6	+6.0
Multi-State, multiple-unit retail, and chain store.....	13.63	14.33	14.57	+5.1	+1.7	+6.9
Total.....	13.75	14.40	14.66	+4.7	+1.8	+6.6
<i>South</i>						
Males:						
Retail and house-to-house.....	18.96	20.71	21.13	+9.2	+2.0	+11.4
Local wholesale.....	18.63	20.36	20.72	+9.3	+1.8	+11.2
Multi-State, multiple-unit retail, and chain store.....	20.28	21.24	21.12	+4.7	-.6	+4.1
Total.....	19.29	20.74	20.92	+7.5	+ .9	+8.4
Females:						
Retail and house-to-house.....	10.07	11.89	12.07	+18.1	+1.5	+19.9
Local wholesale.....	10.69	12.72	12.47	+19.0	-2.0	+16.7
Multi-State, multiple-unit retail, and chain store.....	10.01	12.46	12.40	+24.5	-.5	+23.9
Total.....	10.32	12.44	12.38	+20.5	-.5	+20.0

Kind of Product and Average Weekly Earnings

It is interesting to note the differences in average weekly earnings when classified according to principal product. (See table 46.) The highest average earnings per week of males in the North were found in bread specialty shops. These high weekly earnings were brought about by the unusually high average earnings per hour, which more than offset the low average weekly hours worked in plants of this type. In bread shops, the average weekly wages paid in March 1933 were only 72 cents more a week than in cake shops. The increase in weekly earnings was greater in bread shops, and employees in these

shops earned \$1.46 a week more than those in cake shops in September 1933 and \$2.45 more in December 1934.

In the South, male employees in bread shops earned \$3.74 a week more than employees in cake shops in March 1933, \$2.82 more in September 1933, and \$3.17 more in December 1934. The decrease of the differential was the result of a greater relative increase in earnings in cake shops between March 1933 and December 1934 than in bread shops. The same general trend characterized the earnings of female workers both in the North and South.

Comparisons With 1931

In the fall of 1931, the average weekly earnings of workers in bread bakeries⁵⁷ was \$29.53 for males and \$12.70 for females, with an average of \$28.54 a week for all workers. By contrast, in December 1934 the weekly earnings of male employees averaged \$25.24; those of female workers, \$14.23; and the average for all employees was \$23.86 a week. Thus, only the weekly earnings of female employees were higher in December 1934 than in 1931. The weekly earnings of male workers averaged \$4.29 less than in 1931, a decrease of more than 14.5 percent.

TABLE 46.—Average weekly earnings in bakeries classified by kind of product as to region and sex

Region, sex, and kind of product	Average weekly earnings			Percentage of change		
	March 1933	September 1933	December 1934	March to September 1933	September 1933 to December 1934	March 1933 to December 1934
<i>North</i>						
Males:						
Bread.....	\$24.89	\$25.21	\$26.33	+1.3	+4.4	+5.8
Cake, sweet goods, and pie, including cake specialties.....	24.17	23.75	23.88	-1.7	+ .5	-1.2
Bread specialties.....	29.56	30.42	28.77	+2.9	-5.4	-2.7
Total.....	24.88	25.12	26.03	+1.0	+3.6	+4.6
Females:						
Bread.....	15.10	15.92	16.02	+5.4	+ .6	+6.1
Cake, sweet goods, and pie, including cake specialties.....	12.03	12.91	13.44	+7.3	+4.1	+11.7
Bread specialties.....	(1)	(1)	(1)	(1)	(1)	(1)
Total.....	13.75	14.40	14.66	+4.7	+1.8	+6.6
<i>South</i>						
Males:						
Bread.....	19.57	20.97	21.19	+7.2	+1.0	+8.3
Cake, sweet goods, and pie, including cake specialties.....	15.83	18.15	18.02	+14.7	- .7	+13.8
Bread specialties.....	(2)	(2)	(2)	(2)	(2)	(2)
Total.....	19.29	20.74	20.92	+7.5	+ .9	+8.4
Females:						
Bread.....	11.34	13.10	13.19	+15.5	+ .7	+16.3
Cake, sweet goods, and pie, including cake specialties.....	8.38	11.44	11.25	+36.5	-1.7	+34.2
Bread specialties.....	(2)	(2)	(2)	(2)	(2)	(2)
Total.....	10.32	12.44	12.38	+20.5	- .5	+20.0

¹ Not enough workers to justify the computation of an average.

² Not available.

⁵⁷ Excludes pie departments or establishments.

Chapter VI.—Personnel Policies and Working Conditions⁵⁸

The Bakery Worker

With the rapid advances in technology in the bread-baking industry have come far-reaching changes in the conditions under which the bakery employees live and work. The bakery worker is no longer required to labor 16 hours or more a day in semidark and damp cellars, as was common in the nineteenth century. As far as lighting, ventilation, and general sanitation are concerned, the typical bakery of today compares favorably with other industrial establishments. Likewise, hours of labor have been reduced and now closely correspond with the working time prevailing in other industries. Formerly conditions of employment discouraged family life among bakers, but today a large proportion are the heads of families and often home owners.

There are still many foreign-born bakers in some parts of the country. This is particularly true of the small local and specialty shops, catering to the racial or national tastes of the trade they serve. Considering the industry as a whole, however, bakery workers are predominantly white native-born Americans,⁵⁹ largely of German extraction. Fewer than 4 percent of all employees covered in December 1934 were Negroes, and these were generally employed on maintenance work, although a few were employed as direct workers in some plants.

The employees in the industry are predominantly male, the number of female workers in December 1934 amounting to only 12.4 percent. Most of the females reported, moreover, were retail-store clerks and office employees. Comparatively few female employees were engaged in bread baking, mainly because the majority of bakeries still operate at night and in many States legal restrictions prohibit night work for women. Another factor that has tended to limit the employment of women in the industry is that until recently the heavy work of bakeries demanded male labor. A considerable number of women are employed, however, in cake or pie departments and in establishments that do not operate primarily at night.

Hiring Procedure

The hiring of employees is usually in the hands of the owner in the small shops and the superintendent or general manager in the larger establishments. In the larger plants, however, the function is fre-

⁵⁸ When considering personnel policies in the bread industry, the bake-shop workers, maintenance employees, driver-salesmen, retail-store clerks, and office personnel must sometimes be treated as distinct groups. The retail clerk and office groups are numerically unimportant in this survey. Except where specifically noted, therefore, the policies and conditions described apply generally to the bake-shop workers, maintenance employees, and driver-salesmen.

The references contained here to provisions of union agreements are based on an analysis of 52 such agreements, dated 1934 and 1935, in 20 cities of 18 States, between bread bakeries and the Bakery and Confectionery Workers' International Union of America or the Amalgamated Food Workers.

⁵⁹ This was indicated by about 91 percent of 152 bakeries reporting on the subject.

quently delegated to subordinates. Thus, the hiring was done by the foreman or department head in 59 of the bakeries surveyed, and most of these plants had more than 50 workers; they accounted for 36 percent of the employees covered. There were only eight establishments, all of which belonged to the multi-State and chain-store groups, that had special employment departments. A classification of plants according to the agency used in hiring will be found in table 47.

Companies recruited employees through direct personal application, trade-unions, private and governmental employment agencies, and occasionally through recommendation by yeast companies or their representatives. The relative importance of these methods was in the order named. The few plants that used private and governmental employment agencies to any extent depended on them principally for mechanics, unskilled help, office employees, and store clerks. The majority of shops that had working agreements with trade-unions relied upon the unions almost exclusively for the type of employees covered by the agreement, although 26 percent of the union shops reported that they hired chiefly from individual applicants. In 90 percent of the nonunion plants, hiring was upon direct application only.

In small bake shops, such as comprise the majority of the trade, the employer is likely to consider the applicant according to his more obvious qualifications for the job. With increasing size of establishments, however, more elaborate qualification policies are found, embracing such considerations as type and extent of previous service in the trade, age, marital status and dependents, physical condition as determined by medical examination, citizenship, and education.

TABLE 47.—Employing agency in 252 bakeries, by size of plant, 1934

Employing agency	Total	Bakeries with classified number of employees						
		Under 10	10 and under 20	20 and under 50	50 and under 100	100 and under 250	250 and under 500	500 and over
All agencies.....	252	22	42	67	55	55	9	2
Foreman or department head.....	59		2	7	17	29	4	
Superintendent, owner, or other executive.....	185	22	40	59	36	23	5	
Employment or personnel department.....	8			1	2	3		2

Previous experience, and particularly satisfactory service in the plant of the employer, outweighs all other considerations when hiring an applicant. It is, of course, based on the demand for experience in the work and the employee's record for dependability and merit. Hence it applies particularly to reliable employees who have been laid off because of slack demand. Almost three-fourths of the plants covered made it their policy to rehire, in preference to other applicants, former employees who had been laid off. Conversely, employees who left their jobs voluntarily are less favorably considered, since the migratory baker is expensive from the operating standpoint. It is not uncommon for employers often to refuse to take back men who have previously left their employ voluntarily. Rewarding part-time or extra workers or "jobbers" with full-time work when conditions

permit is customary and is a requirement in some trade-union agreements.

That the baker's work is strenuous is indicated in part by the age composition of the workers employed in the industry. The union contends that "the present methods of production impose such a strain upon the workers that * * * it is almost impossible for a man of 50 to secure any job."⁶⁰ More than 43 percent of the male bakery employees, according to the Bureau of the Census, are under 30 years of age, and the age of 32.6 percent is from 30 to 44 years. In 1930, the age of nearly a third of all gainfully employed workers in the United States was 45 years or over, but only slightly more than a fourth of the bakers were over 45 years of age.

There is a pronounced tendency to confine employment of the bake-shop workers (mostly males) to definite age limits. A higher minimum hiring age than the 16 years imposed by the code was the rule in almost half of the shops. Of these, nearly 80 percent fixed the minimum at 18 years, and a number hired no one under 21. The highest minimum age reported was 25 years. Driver-salesmen were generally required to be 20 years old or over. The maximum age for new employees is less frequently fixed, as less than a fourth of the reporting plants imposed this requirement. These establishments, 61 in number, fixed the maximum ages as follows: 8 plants, 30 years; 14 plants, 35 years; 13 plants, 40 years; 15 plants, 45 years; 10 plants, 50 years; and 1 plant, 60 years. Several shops had a lower maximum hiring age for driver-salesmen than for bakers. Generally speaking, the hiring age for bake-shop employees ranged from 18 to 45 years and for driver-salesmen from 21 to 35 years. The prevalence of night work, the strenuous labor in hand bakeries, and the health hazards in shops not modernly equipped and ventilated are factors contributing to the limited years in which a person can work in this industry.

Married men and unmarried women are preferred in the majority of plants reporting marital status as a hiring consideration. The stability and responsibility of married men, particularly if they have dependents, was given as the reason. A few shops applied the same principle in hiring women employees, but the majority preferred single women and several barred married women entirely.

American citizenship was a factor in the hiring policies of about 30 percent of the plants covered. The majority of these required full citizenship, even stipulating that employees be native-born, whereas a few required only a declaration of intention to become a citizen.

Physical examinations are not usually required by the employer, although some companies provided medical examination and a few others insisted on an examination at the applicant's expense. Certificates of health are also required of their members by some union locals. The burden of this protection of the public, however, rests with the States and cities, some of whose statutes and ordinances require certificates of health for food handlers.

Educational requirements for employment in the industry are not very stringent, only one-third of the plants investigated making literacy and a speaking knowledge of English prerequisites for employment. Some required a grade-school, high-school, or business-school education, but this was chiefly for the sales and office force.

⁶⁰ Official Report and Proceedings of the Twentieth Convention to the Bakery and Confectionery Workers' International Union of America, held at St. Louis, Mo., September 1929.

Training Policies

Training is necessary for both bakers and driver-salesmen. Bakers learn their trade either through apprenticeship or by work as helpers. Generally, an apprenticeship system is used in unionized handicraft bakeries, and in machine and nonunion shops new employees receive their training as helpers. In some cities, however, the apprenticeship system prevails in all types of bakeries.

Of the 259 plants investigated, only 7 percent trained apprentices. All of these were union shops and represented 25 percent of all the unionized bakeries covered. Actually, only 74 apprentices were found on the pay rolls of these shops. This low proportion is doubtless due both to the large number of unemployed journeyman bakers at the time of the survey and to the increasing mechanization of the industry which has curtailed the demand for skilled workers.

Bakery workers beginning as helpers in plants where apprentice training is not required are advanced to work as machine or bench hands in accordance with ability or seniority, or both, usually without a definite requirement as to length or extent of training. Union agreements frequently specify that advancement must have union approval. The union locals that require apprentice training for journeyman bakers frequently do not permit helpers to do the work of apprentices or bakers.

Advancement from apprentice to journeyman baker is generally attended by a more formal regulation than is the promotion from helper, but the practices vary widely between different cities and union locals. The requirements in 20 union agreements that provide for apprentice training are as follows:

Period of apprenticeship: 2 to 4 years.

Instruction: In each manufacturing department under guidance of a journeyman baker.

Minimum age: 16, 17, or 18 years (not always required).

Maximum age: 20 to 25 years (not always required).

Number allowed: From 1 per shop to 1 per 10 to 15 journeymen.

Wages: Entrance, \$12 to \$20.50 per week, with advancement generally every 6 months, and last wage period \$18 to \$35 per week. (A few agreements permit the entire apprenticeship to be served at the entrance wage.)

Examination: Sometimes required before the apprentice is given his journeyman's card.

Helpers: Helpers are not permitted to perform the work of apprentices or bakers. (Not always specified.)

Training for driver-salesmen, as given in some plants, consists only in the novice accompanying the route supervisor until he learns the route, becomes acquainted with the customers, and is capable of working independently. The larger organizations, however, usually require more extensive training of a student salesman, such as a course of a week or two in sales methods, under the direction of the sales manager or person in charge of sales promotion, and instruction in manufacturing processes and company organization and policies, as well as learning the particular route to which he is assigned. Student salesmen usually receive a straight salary during the training period. The length of training varies from 1 to 6 weeks, with 2 weeks the usual period. The more progressive shops hold periodical sales meetings, which serve to keep their salesmen instructed in new methods and progress.

Lay-off and Firing Procedure

As previously indicated, seasonal influences play a relatively minor part in the baking industry. Exigencies of the season, however, do cause moderate fluctuations in production, accelerated activity occurring generally during August and September with January as the month of lowest production. There are also the shorter rush periods during week-ends and before holidays.

The slack periods generally result in part-time hours rather than lay-offs. By this means, the employer is able to maintain his working force nearly intact. The methods of cutting the hours include the use of the stagger system, vacations without pay, reduction of hours and earnings proportionately, and the reduction of hours with maintenance of full-time weekly salaries. Some union agreements provide that 6 days or less shall constitute a week's work for employees on a salary basis, or that regular employees must have a full week's pay if the plant is in operation. Other agreements specify that, in order to share work (among members of the local), each regularly employed person must give 1 or 2 days' work a week to a substitute.

For the week-end and preholiday rushes, the general practice is either to lengthen the hours of regular employees or to hire extras or "jobbers." Union agreements sanction both methods.

When lay-offs are necessary, the factor governing selection, after ability and merit, is usually seniority. Almost half of the employers reported that a worker's family responsibility was an important consideration.

The practice of giving advance notifications of lay-off or paying a dismissal wage was reported by two-thirds of the bakeries surveyed. Of the 167 plants so reporting, 114 gave notice only, 22 granted both notice and a dismissal wage, 16 gave a dismissal wage only, and 15 gave either notice or a dismissal wage as circumstances warranted. The typical length of notice, reported by three-fourths of the shops, was 1 week. One week's pay was the dismissal wage reported by virtually all plants using this method. Of 52 union agreements examined, about half required notice varying from 12 hours to 1 week and none mentioned a dismissal wage except as pay in lieu of notice.

The rate of discharge for cause among bakeries closely parallels the average for "all industries", as reported monthly to the Bureau of Labor Statistics. The following causes for discharge with prejudice were cited by the employers in 149 bakeries, inefficiency (reported by 88 plants), dishonesty (86 plants), and drunkenness (79 plants) being the outstanding causes.

	<i>Number of bakeries reporting cause</i>
Inefficiency.....	88
Dishonesty and theft.....	86
Drunkenness.....	79
Carelessness and indifference.....	37
Accidents.....	17
Insubordination.....	16
Personal conduct.....	11
Uncleanliness.....	7
Infraction of rules.....	7
Fomenting discord.....	5
Destructive negligence.....	4
Wastefulness.....	3
Physical unfitness.....	2

In a majority of the plants the discharging official was the same person who hired employees. (See table 47.) Appeal from discharge to a higher official or a mediation board was provided in fewer than half of the 140 plants that reported on this point. Of the 62 plants that provided an avenue of appeal, 4 had an established mediation board, 10 reported recourse through the trade-union, and the remaining 48 allowed a review of the case by the superintendent or a higher official. Many union agreements specify that a union representative must determine if the reasons for discharge are sufficient, some agreements making provision for mediation boards.

Methods of Wage Payment

Wages in the baking industry are paid chiefly on a time basis, except in the case of driver-salesmen, who are usually paid wholly or in part by commissions. This may be seen by an examination of table 48.

The weekly salary basis predominated among retail-store and office employees, and it was also the usual method for over half of all bake-shop workers covered by the survey. The remaining bake-shop employees were chiefly on an hourly basis. The weekly wage was used almost exclusively for the regularly employed bake-shop workers in approximately three-fourths of the establishments, and in virtually all of the smaller shops, but in the larger shops the hourly rate predominated. The widespread use of the week's work as the basis of wage payments, even though weekly rates may be apportioned to the actual hours worked, connotes a measurement of production in terms of a daily task rather than of hourly output. It also reflects the stability of employment in the industry.⁶¹

TABLE 48.—Distribution of employees by class, method of wage payment, type of distribution of products, and region, 1934

Class of workers, type of distribution, and region	Total	Number of employees who were paid—							
		Straight-time rates				On production basis			
		Total	Salary (week or month)	Hourly rate	Daily rate	Total	Salary plus commission	Commission	Bonus ¹ or piece rates
All workers.....	20,623	15,109	9,109	5,640	360	5,514	2,754	2,426	334
Class of workers:									
Bake-shop employees ² :									
Union.....	13,592	13,264	7,346	5,579	339	328	-----	-----	328
Nonunion.....	2,876	2,876	1,763	859	249	-----	-----	-----	-----
Total.....	10,716	10,388	5,578	4,720	90	328	-----	-----	328
Driver-salesmen.....	5,484	412	409	-----	3	5,072	2,708	2,364	-----
Sales supervisory, etc. ³	295	196	193	3	-----	99	43	56	-----
Retail-store clerks.....	400	391	339	38	4	9	3	6	-----
Office.....	852	846	822	20	4	6	-----	-----	6
Type of distribution of product:									
Independent local ⁴	11,381	8,567	6,359	2,021	187	2,814	1,244	1,565	5
Multi-State.....	8,432	5,732	2,464	3,137	131	2,700	1,510	861	329
Chain store.....	810	810	286	482	42	-----	-----	-----	-----
Region:									
North.....	17,276	12,541	7,185	5,017	339	4,735	2,408	1,993	334
South.....	3,347	2,568	1,924	623	21	779	346	433	-----

¹ Includes 328 employees working under a production bonus system and 6 employees on piece work.

² Includes both direct and indirect labor in processing, maintenance, and shipping departments.

³ Includes sales managers, route supervisors, solicitors, sales-class instructors, route riders (learners), and other miscellaneous sales-department employees.

⁴ Includes local retail and house-to-house, local wholesale, and multiple-unit retail establishments.

⁶¹ See also p. 99 relative to paying employees for holidays and vacations.

In two large bakeries, the Bedeaux⁶² system of wage payment was in operation for employees in the manufacturing departments. A few other plants reported piece-rate payment to miscellaneous employees.

More than 90 percent of the driver-salesmen were paid on a commission basis. Of these, about half were on a straight commission basis and the other half received a salary in addition to commissions. Only a small percentage (7.5 percent) were on a straight-time basis, and most of these were employed by 20 small plants.

Various methods are used in computing the commissions of driver-salesmen. The most common methods are as follows: Percentage on all sales, with or without straight salary; and salary plus commissions on all sales over a specified amount. In several plants, the rate of commission percentage was raised as the sales increased, although a few worked on the opposite principle and decreased the commission percentage as sales increased.

A minimum-wage guaranty was mandatory under the code. Nevertheless, a few shops that were not complying with code provisions gave no minimum-wage guaranty to employees paid on a commission basis. The survey revealed that numerous other shops did not guarantee a minimum wage to salesmen until the code became effective.

Periodic sales contests with financial rewards, found chiefly among the larger bakeries, were common incentives to sales promotion. These contests were generally held at widely separated and irregular intervals, although a few bakeries used them as continuing incentives, giving prizes based on weekly performance and grand prizes over a longer period.

Overtime Rates

The term "overtime", as used here, embraces any time worked before an employee's regular starting time or after his regular quitting time on any day. This includes work on Sundays and holidays when the regular working schedule of the employee does not provide for work on those days.

Daily and weekly hours of work were limited by the code during the period covered by this survey. Consequently, the subject of overtime during the period was of less importance than ordinarily, as a great many of the plants during the code period simply adopted as their regular hours the maximum allowable. Thus, the opportunity for overtime work, except by code violation, was limited to the extent of the tolerance allowed certain employees.⁶³

The payment of punitive overtime rates (time and a third, time and a half, etc.) to all or part of the employees was the expressed policy of 145 bakeries, or 56 percent of the plants surveyed. Extra rates for overtime were allowed the bake-shop workers in 130 shops, maintenance and garage employees in 84, chauffeurs and deliverymen in 26, retail-store clerks in 26, driver-salesmen in 4, and office em-

⁶² A premium or gain-sharing plan, the main purpose of which is to equalize the basis of pay throughout the plant. Work is rated in "points" or "B's", each point being a man-minute of work. Usually production employees are paid 75 percent of the value of production above standard, the remaining 25 percent going to indirect labor and supervision.

⁶³ The code allowed a tolerance in daily hours for bake-shop employees, within the regular weekly hour limitation, on days immediately preceding and following Sundays and holidays and on other occasions of unusual demand due to local conditions; it permitted an annual tolerance in hours of work of office employees to cover peak times; and it allowed work beyond the regular maximum hours for emergency repair or maintenance, provided the employees so working were paid for the excess hours by at least $1\frac{1}{2}$ their regular rates.

ployees in 3 bakeries. A majority of the remaining shops paid only straight time for overtime. In many establishments salaried employees were allowed only compensatory time off, and often no compensation whatever.

Table 49 shows the apportionment of employees among the plants compensating for overtime by the various methods used. The figures given in the table include a substantial number of workers reported as never being required to work overtime, and consequently not affected by policies fixing overtime pay. Driver-salesmen and other outside employees were omitted, as employees in these occupations customarily control their own hours of work, which means that overtime for them could not be accurately measured. Three bakeries in California, however, had agreements with a drivers' union requiring punitive overtime rates for driver-salesmen, and a fourth plant there paid an extra overtime rate to sales supervisory employees. In one of these shops the salesmen were on a salary basis, and in the others they were paid partly by commissions.

TABLE 49.—Distribution of employees¹ according to method of compensation for overtime, 1934

Class of workers	Total number of employees	Number of employees working under "no overtime" policy	Number of employees who were compensated by—				
			All methods	Punitive rates	Pro-rata pay	Time off	No compensation
All employees.....	13, 713	1, 084	12, 629	7, 961	2, 426	1, 458	784
Bake-shop employees.....	11, 292	790	10, 502	7, 024	2, 098	934	446
Union.....	2, 375	157	2, 218	1, 429	675	32	82
Nonunion.....	8, 917	633	8, 284	5, 595	1, 423	902	364
Maintenance and garage workers.....	1, 145	48	1, 097	753	165	95	84
Chauffeurs and delivery men.....	320	20	300	118	56	70	56
Retail-store clerks.....	356	98	258	54	79	78	47
Office employees.....	600	128	472	12	28	281	151

¹ Driver-salesmen and sales supervisory employees excluded.

Time and a third was the usual overtime rate, being paid by 101 of the 145 plants that reported punitive rates. Time and a half was the rate in 32 shops, and in 7 plants bake-shop employees were paid time and a half and other employees time and a third. One of the remaining five bakeries paid double time, and the other four a flat overtime rate. Double time was paid by a few plants for work on holidays and on regular days off, whether Saturday or Sunday.

The normal week was the unit beyond which overtime was computed for payment of extra rates in about two-thirds of the plants, and the normal day was the unit in the remaining. A few based overtime for bake-shop employees on the normal day, and for maintenance employees on the week.

Bakery union agreements usually exact penalty rates for overtime, fixing the "day" as the unit and providing for time and a half.

The practice of paying penalty rates for overtime work shows a substantial increase compared with conditions found in the fall of 1931, when only 24 percent of the 503 bakeries surveyed paid extra overtime rates. This shows another phase of the progress towards shorter hours of work, which was given impetus by the codes. There

has been, however, a lowering of the level of penalty rates, as previously the customary rate was time and a half (occasionally double time for Sunday and holidays). By contrast, in December 1934 the time and a third rate named by the code had been adopted by two-thirds of the industry surveyed.

Special Bonuses and Penalties

Bonus and penalty systems covering safe driving, reduction of returned merchandise, economy of materials, and length of service, were found in several establishments.

Seven bakeries rewarded drivers for low accident rates, and 27 plants imposed penalties for accidents. Four of the bakeries that penalized drivers also gave bonuses. The safety bonuses varied from \$4 to \$25 per year, payable at intervals of 1, 3, 6, or 12 months, as long as the driver's record remained clear. Penalties for chargeable accidents took the form of fines in 3 plants, deductions for all or part of the damage in 16, and suspension without pay in 2. The penalties in the remaining 6 establishments were not reported. In a few establishments, the fines collected were put into the bonus or athletic funds of the plant. The practice of allowing the drivers representation on the boards charged with fixing responsibility for accidents was frequent.

Returned-merchandise bonuses or penalties were found in 12 bakeries, some of which gave bonuses for the reduction of loss through returned merchandise, and others levied penalties for exceeding a minimum allowance. At four plants bonuses of from 50 cents to \$5 per week were paid if the return of stale bread or cake by the driver fell below 2 to 6 percent of his net sales. The bonus advanced in two of these establishments as the percentage of returned merchandise decreased. The bonus in a fifth plant was 1 percent of net weekly sales for returned "stales" of less than quota; in the sixth it was 5 percent of net weekly sales for no stale returns; and, in the seventh it was one-half the wholesale value of the saving over the quota of stale goods. Penalties, deducted from commissions only, were similarly computed, the driver-salesmen being charged a percentage either of net sales or of the total cost of stale goods returned. In all bakeries where penalties were levied, the salesmen were responsible for making up their own orders and were not assigned quotas. In fact, in only six plants was it the reported practice for the bakery to assign a specified amount of bread to the salesmen, and four of these paid their salesmen on a salary basis and the other two paid them salaries plus commissions on net sales.

Economy of materials was the basis for bonus payment to foremen in the production department of one large bakery. Service bonuses were paid in three plants, all employees benefiting in two and only department heads in the third.

Payments in Kind

Supplying employees with bakery products for family use, free or at a discount, is a common practice in the industry. In fact, some

union agreements specify the amount of product that each union-member employee shall be allowed. The practice varies widely. Some plants covered in this survey gave 2 pounds per day to each employee, others gave as much as the employee's family could use, and still others gave employees discounts of from 5 to 25 percent. The practice of supplying free lunches for employees, and at some shops two meals a day also was reported. The extent of these practices, however, was not determined.

Employee Expenses

Licenses for bakery driver-salesmen or chauffeurs, or both, are required in the majority of States, as well as special licenses by some cities. The cost varies from a few cents to \$6 per year and is usually paid by the driver, as only 35 companies out of the 183 reported the item as a firm expense.

Bonds, furnished at their own expense by driver-salesmen and sometimes also by chauffeurs and deliverymen, were required by 38 percent of 226 plants reporting. Most of these were multi-State and house-to-house bakeries. The bond was usually a cash deposit, ranging from \$25 to \$250. Among establishments requiring bonds, more than half required \$100 and a third required \$50. Insurance bonds were rare, costing the applicant from \$1 to \$4 per year. Interest was paid by a third of the companies requiring cash bonds. The most common interest rates ranged from 3 to 7 percent, but 5 and 6 percent were the rates usually reported.

The responsibility for the collection of authorized or approved accounts is usually assumed by the firm, but the driver-salesman is generally responsible for any credit that he extends on his own account. Many of the firms reported that their sales were on a cash basis, and any credit extended by a driver-salesman was at his own risk. Others extended company credit only on a few large accounts, such as those of hotels and restaurants. A few did not permit the salesman to extend credit that was not approved, and the company assumed all responsibility. At some establishments, the firm's responsibility was only for the first few weeks of new accounts. At others, only a limited amount of credit was extended. Some reports indicate that the driver's cash bond is held, in the event of termination of his employment, as security for outstanding accounts.

The item of uniforms is one to be considered by the bakery employee, since in the majority of shops he must stand the entire or part expense of buying and laundering them. The requirement of special uniform clothing is general throughout the industry, except in the very small bakeries. Of the plants that employed each type of worker, 73 percent required uniforms for bake-shop employees, 55 percent for driver-salesmen (and some chauffeurs), and 18 percent for retail-store clerks. The requirement for bake-shop employees is 10 percent higher in nonunion than in union shops. It is also higher in multi-State than in independent bakeries, the ratios being, respectively, 94 and 66 percent for bakers and 72 and 50 percent for salesmen.

Cost of purchase and maintenance is borne chiefly by the employee, as shown in table 50.



Courtesy of Connecticut Pie Co.

PLATE 5.—CAKE-BATTER MIXING.



Courtesy of Connecticut Pie Co.

PLATE 6.—PIE-MAKING MACHINE, SHOWING BOTTOM MAKING, BOTTOM LAYING, FILLING, AND TOP MAKING.

TABLE 50.—Number of plants requiring uniforms and distribution of cost and maintenance

Class of workers	Number of plants	Cost of uniform borne by—			Cost of maintenance borne by—		
		Em- ployee	Com- pany	Jointly	Em- ployee	Com- pany	Jointly
Bake-shop employees.....	189	145	16	28	141	22	26
Driver-salesmen and chauffeurs.....	111	46	12	53	82	18	11
Retail-store clerks.....	25	11	8	6	15	5	5

In several of the plants shown as sharing the cost, the firm and employee each supplied certain articles. In a few, the firm paid the entire cost for female employees, but only a part or none of the cost for male employees.

The cost of providing and servicing uniforms varies widely with the type of clothing worn, ranging from a few dollars to more than \$100 a year. Two types of service are used, one being service from rental agencies which includes maintenance of the clothing, and the other outright purchase of the uniforms by the employee or firm, with separate maintenance. At most plants, particularly for the male workers, the uniforms are purchased. This is apparently the more costly method if uniforms are laundered outside the home. A comparison of average annual cost per employee of providing uniforms by the two types of services is shown in table 51.

TABLE 51.—Estimated annual per-capita cost of uniforms and their maintenance for each class of worker, 1934

Class of workers	Average estimated annual per-capita cost of—			
	All uniforms plus maintenance ¹	Uniforms rented and maintained through laundry service	Purchase of uniforms	Maintenance of uniforms
Bake-shop employees, male.....	\$33.69	\$29.48	\$8.35	\$25.26
Bake-shop employees, female.....	24.80	33.34	4.03	11.40
Driver-salesmen and chauffeurs.....	45.87	43.12	24.04	21.83
Retail-store clerks.....	25.09	24.52	7.18	20.28

¹ This includes both the cost of uniforms rented and maintained through laundry service and those purchased and maintained separately. Each estimated annual figure was weighted by the number of employees represented.

The initial expense of white cotton clothes of the type used in bake shops is small, but the cost of keeping them clean is of some importance. The cost of laundering such uniforms was estimated at 50 cents or more per week for approximately half of the bake-shop employees, and at 25 cents or more for very nearly all classes of workers. Table 52 shows the distribution of employees according to weekly per-capita maintenance cost of uniforms.

TABLE 52.—Distribution of employees according to weekly per-capita cost of uniform maintenance, 1934

Class of workers	Total	Number of employees whose weekly per-capita cost of uniform maintenance was—						
		Under 25 cents	25 and under 50 cents	50 and under 75 cents	75 cents and under \$1.00	\$1.00 and under \$1.25	\$1.25 and under \$1.50	\$1.50 and over
All workers.....	4, 553	530	2, 134	1, 159	457	140	108	25
Bakers.....	2, 295	133	1, 205	649	39	136	108	25
Driver-salesmen.....	2, 228	394	906	510	418			
Retail-store clerks.....	30	3	23			4		

Working Time and Shifts

Unlike the even distribution of man-hours found in many industries, the baker's time must follow the order of manufacture of the product. His hours vary widely in different plants, and even in the same shop on busy or slack days of the week. The number of bakings per day, duration of fermentation (which is faster or slower with different methods used), type of plant equipment, and peculiarities of the firm's particular market all go to place a demand on the industry for constant variability and adaptation. Because of the extreme irregularity of the starting and quitting hours of individual bake-shop employees and the overlapping of processes in terms of operating time, it is difficult to arrive at a weighted or composite average of daily peak load or slack for the industry, or even for individual plants. There is, of course, in each shop a work schedule of hours, which is adhered to more or less regularly. The schedules of three small bake shops, given in table 53, illustrate the wide variations among shops.

TABLE 53.—Starting time by kind of work in 3 bake shops

Item	Hour of beginning work	Class of workers
Shop no. 1, mechanical bakery, with 1 shift.	1:30 p. m.....	Ingredient scalers.
	2:00 p. m.....	Mixers.
	7:30 p. m.....	Dividers.
	8:00 p. m.....	Molders and bench hands.
	8:30 p. m.....	Ovenmen.
	10:00 p. m.....	Wrappers.
Shop no. 2, mechanical bakery, with 2 shifts.	9 a. m. and 9 p. m.....	Mixers.
	2 p. m. and 2 a. m.....	Machine hands.
	4 p. m. and 4 a. m.....	Ovenmen.
	6 p. m. and 6 a. m.....	Wrappers.
	8 p. m. and 8 a. m.....	Packers.
	1 p. m. and 8 p. m.....	Second hands (mixer).
Shop no. 3, handcraft bakery, with 2 shifts.	2 p. m. and 9 p. m.....	First hands (foreman and ovenman).
	3 p. m. and midnight..	Third hands (bench men).

In large bakeries where there is more division of work and several doughs are baked each day in continuous operation, the typical schedule is an extreme use of the stagger system, with employees coming to work and leaving for home in a continuous procession with each hour of the day and night.

A number of the larger bakeries have worked out a fairly uniform shift system. The use of shifts of workmen, who report for work in reasonably uniform relays, was reported by 36.5 percent of the bakeries. In these shops, the two-shift basis was the rule, but a few

operated three and four shifts. These do not include plants in which workmen in the same occupations start work at irregular hours throughout the day, nor those in which a cake department may work one set of hours, a pie department another, and a bread department still another, even though the plant is operating 24 hours per day. Such shops are considered as working one shift of staggered hours. Rotation of hours for workmen on shift and staggered-hour systems is apparently not practiced extensively.

As already mentioned, daily hours in bake shops vary with week-ends, holidays, and the midweek slack periods. An effort has been made by the industry, however, to iron out these weekly peaks and lows. A sample of 44 different weekly schedules, taken from bakeries of many kinds, large and small, union and nonunion, showed that half of them were able to maintain uniform daily work schedules throughout the week. Some of the 44 shops worked regular employees 5 days a week, arranging a schedule of regular relief men, or "jobbers", to cover the sixth employee-day as well as the extra hours of rush periods.

The survey offered abundant evidence of broken shifts and changing hours from day to day, but the extent of these practices was not determined. The code provisions governing maximum daily and weekly hours and a 6-day week doubtless had some effect, and numerous union agreements were also of influence in standardizing working time. The union agreements have been helpful in stabilizing the workman's day by defining his hours of starting and finishing, to be altered only on specified days, by providing for 1 day off per week which is not subject to change, by regulating the amount of permissible overtime, and by prohibiting excess overtime when "jobbers" are available. They have been influential in abolishing "split shifts" by requiring that the baker's hours of labor be consecutive and fixing a minimum length of time between shifts.

Driver-salesmen's workdays are long, often beginning at dawn or earlier in bakeries requiring them to put up their orders and load their trucks. Off-duty periods during the day, however, afford some compensation for the long hours. It will be remembered that, with the exception of providing a 6-day week, the code did not restrict the hours of driver-salesmen (if paid on a commission basis). But in many bakeries their hours are defined and the schedule closely adhered to.

Night Work

Night work is still common in the baking industry, although a struggle has been waged against it for a century. Some progress has been made, however, and in a number of countries night work in bakeries is now prohibited.

The prevalence of night work in American bakeries is evident from the accompanying graph 9 which shows the hours of bake-shop operation⁶⁴ in 93 plants located in 28 States. These establishments employed 7,569⁶⁵ bake-shop employees. Their night hours of operation comprised 51.2 percent of total operation, and 45.9 percent of these night hours were between midnight and morning. More than 25

⁶⁴ The hours during which any production work was performed in the shop.

⁶⁵ Although this sample covers less than 5 percent of all bake-shop employees as shown by the 1930 Census the plants are well distributed with respect to location, size, kind of product, type of distribution, and unionization.

percent of them were on 24-hour operation and an additional 30 percent operated 18 hours or more, while fewer than 11 percent of them operated less than 12 hours. Approximately 82 percent of the plants operated 6 or more hours between 6 p. m. and 6 a. m. In only about one-third of the plants did the work end between 6 o'clock in the morning and 6 o'clock at night. A large proportion of those not on a 24-hour operating schedule stop work between midnight and morning. Considering the fact that the majority of workmen do not start their work until several hours after operations for the day begin, it is evident that a very large proportion of bakers work while the average person sleeps.

Only 31 of 248 shops reported premium rates for night work. These included about half of the union shops. The extra rate paid to the employees varied, ranging from 3 percent to 30 percent over the day rate. In many shops, the differential was paid only to certain processing occupations in the bake shop. None of the nonunion shops were paying punitive wages for night work. The definition of "night work" for purposes of paying the differential varies between cities and between shops in the same city. Most plants considered from 6 p. m. to 6 a. m. as night work, others from 8 p. m. to 4 a. m., 9 p. m. to 5 a. m., and 10 p. m. to 6 a. m.

Rest Periods, Holidays, Vacations, etc.

Approximately three-fourths of the bakeries made provision for rest during a lunch period of definite length for at least a part of their workmen, although only two-thirds of the shops extended this privilege to bake-shop employees. Bakers in the other shops remained on duty for the entire unbroken period of their workday, and ate lunch "on the job." This practice was found in all types of plants, but it was most prevalent in the smaller independent nonunion shops, of which only 67 percent allowed the time free from duty, as compared with 83 percent of the union shops and 77 percent of all bakeries. Many union agreements provide for a lunch period and usually specify whether or not the time shall be counted as a part of the employee's regular hours of work. This survey did not yield information with regard to plant practice in paying for lunch periods.

The usual length of the lunch period for the shop, maintenance, and service workmen was one-half hour, this length allowed by two-thirds of the plants, and most of the others allowed 1 hour. Office employees have regular lunch periods of 1 hour in the majority of plants. Driver-salesmen are usually free to fix the time and length of their noon-day rest as their work permits, although a few shops fixed the amount of time they should take.

Short formal rest periods, aggregating from 20 to 30 minutes a day, in addition to the lunch time were allowed production and shipping employees in one plant, woman workers in two, and office employees in one. All of these rest periods were on company time.

Holiday observance is general throughout the baking industry. The extent to which the principal holidays were observed is indicated by the following tabulation:

	<i>Number of bakeries observing</i>
Christmas Day.....	230
Thanksgiving Day.....	204
Independence Day.....	202
New Year's Day.....	192
Labor Day.....	160
Decoration Day.....	132

The reports indicate some 13 additional holidays observed to a lesser degree. No holidays were observed in 19 shops, only Christmas Day in 16, and only Labor Day in 1. The remaining plants allowed their employees from 2 to 11 holidays annually.

The baker's holiday is usually celebrated the day, or night, before the holiday, and, if it falls on a Saturday or Monday, he may lose the day off entirely or have another day substituted. Sometimes the bakery operates a short day, usually a half day, or runs with a reduced force of employees alternating holidays or being given other days off instead. As every holiday is normally a rush period among bakeries, it is not strange that many plants are unable to grant the day off to all employees. In union agreements holiday observance is usually provided for specifically.

Practices with regard to paying employees for time off on holidays vary considerably. In 93 percent of the shops included in the survey, payment to part or all of the force was found. Salaried employees generally suffered no deduction, and regular bake-shop workers received their full-time wage in 60 percent of the shops. The composite average for all bakeries shows that approximately half of all employees were paid in full for holidays and half took the time off at their own expense.

Vacations with pay for wage earners are more common in the baking industry than in many other industries. This is no doubt largely due to the permanence of employment and the closeness of personal contact between workmen and management. Vacations for all employees were provided by 12 percent of the plants reporting, and an additional 36 percent gave vacations to certain groups. These were for the most part vacations with full pay. Processing employees were granted vacations by 16 percent of the bakeries, driver-salesmen by 21 percent, retail-store clerks by 16 percent, and supervisory and office employees by 44 percent.

The practice of giving vacations was relatively more prevalent in chain-store bakeries than in either the multi-State or independent local shops. Two-thirds of the chain-store plants gave vacations to all of their employees, whereas this was true of only 9 percent of the bakeries in the multi-State and local independent groups. However, 70 percent of the multi-State and 29 percent of the local independent shops gave some vacations. Northern plants in general were more liberal in this respect than southern establishments, 14 percent giving vacations to all and 41 percent to part of their employees. Among the southern shops canvassed, only 5 percent gave vacations to all and 21 percent to a part of their workers.

The length of vacation was 1 week in approximately 60 percent of the plants, and the majority of the others gave 2 weeks. Graded

plans, with the length of vacation based on length of service, were used in 11 plants.

A minimum service of 1 year was the usual eligibility requirement for vacations in 83 firms reporting. Other service requirements ranged from 1 to 5 years, but 12 percent of the plants made no service requirement.

Continuation of wages during short periods of illness was the practice in 37 percent of the bakeries surveyed. All employees benefited in one-eighth of the shops, and only certain groups, usually the office and supervisory employees, in one-fourth of them. As with vacations, this practice was followed by a larger proportion of the multi-State and chain-store establishments than local independent bakeries. Similarly, the northern plants were more liberal than those in the South.

Policies regarding maximum length of sick leave and minimum service for eligibility were not so well defined as were those for vacations. The majority of plants decided each case on its merits. In shops having a definite policy, however, the maximum sick leave usually allowed was 1 week. The reports regarding service requirements were too few to warrant conclusions, but the range of service reported was from 1 month to 1 year.

Welfare Work

Elaborate welfare programs are not common among plants in the bread-baking industry, except in larger establishments and branches of large organizations like the multi-State and chain-store groups. The welfare activities include safety programs, employee insurance, and social or recreational work.

Safety programs, additional to the usual provision of first-aid kits, safety posters, and machine guards, were found in 77 percent of the multi-State plants, 42 percent of the chain-store bakeries, and in 19 percent of the local independent establishments. The programs were directed by executives or foremen (in four plants by safety engineers), were subject to regular committee meetings of supervisors and employees, and called for periodic inspections, investigation of accidents, and recommendation for elimination of hazards. Several programs provided for special instruction of employees in safety and in some instances rewards for the avoidance of accidents.

About 60 percent of the employees surveyed were protected by insurance under company plans. For virtually all of these workers, the protection was provided by means of group life insurance. Many of the policies provided nonoccupational accident, disability, and health benefits. Insurance plans were found in 36 percent of all plants surveyed, most frequently in multi-State and chain-store organizations. The costs were borne jointly by company and employees at most establishments, only 4 plants in 94 requiring the employees to bear the entire expense. The firm paid the whole cost in 13 plants. In some establishments, the company paid for the life insurance and the employee for the other benefits, such as health and accident. An insurance-pension plan was reported by one multi-State bakery, supported jointly by the company and employees. Another plant, a local independent, had an endowment savings plan, likewise contributed to by the firm and employees.

Table 54 shows the occurrence of insurance plans by type of bakery and form of insurance.

TABLE 54.—*Insurance for bakery employees, 1934*

Kind of bakery	Total number of—			Number with insurance			Number of plants having each specified kind of insurance					
	Com- pa- nies	Plants	Em- ploy- ees cov- ered	Com- pa- nies	Plants	Em- ploy- ees cov- ered	Life	Dis- abil- ity	Acci- dent	Health	Pen- sions	En- dow- ment sav- ings
All bakeries.....	222	258	20,814	64	94	12,420	93	36	40	41	1	1
Independent local ¹	189	193	11,385	44	46	4,632	45	10	9	7	—	1
Multi-State.....	24	53	8,619	15	40	7,100	40	21	27	30	1	—
Chain store.....	9	12	810	5	8	688	8	5	4	4	—	—

¹ Includes local retail and house-to-house, local wholesale, and multiple-unit retail establishments.

Mutual-benefit associations were found in 17 plants. Some of these were partially supported by the company. Their services embraced such features as hospitalization and other health benefits, emergency financial aid, and social and recreational activities. Some also engaged in group insurance.

Social and recreational activities, usually in the form of entertainments, outings, banquets, dances, and subsidized baseball and other athletic teams, were included in the welfare programs of 45 of the plants surveyed.

Appendix I.—Technological Processes and Glossary of Occupations

PART I

Technological Processes

The description of technological processes given here is intended to make for a better understanding of the various occupations involved in the making of bread, cake, and pies. Due to the fact that bakeries vary all the way from the handicraft shop, with a minimum amount of machinery, to the highly mechanized plant, where virtually all operations are done by machines, it is difficult to present a description that will fit every establishment. Accordingly, an attempt is made here only to trace in a general way the manufacture of bread, cake, and pies from the initial to the final stages, pointing out in each of the processes the methods used in hand and machine baking. (See chart 10.)

Bread Making

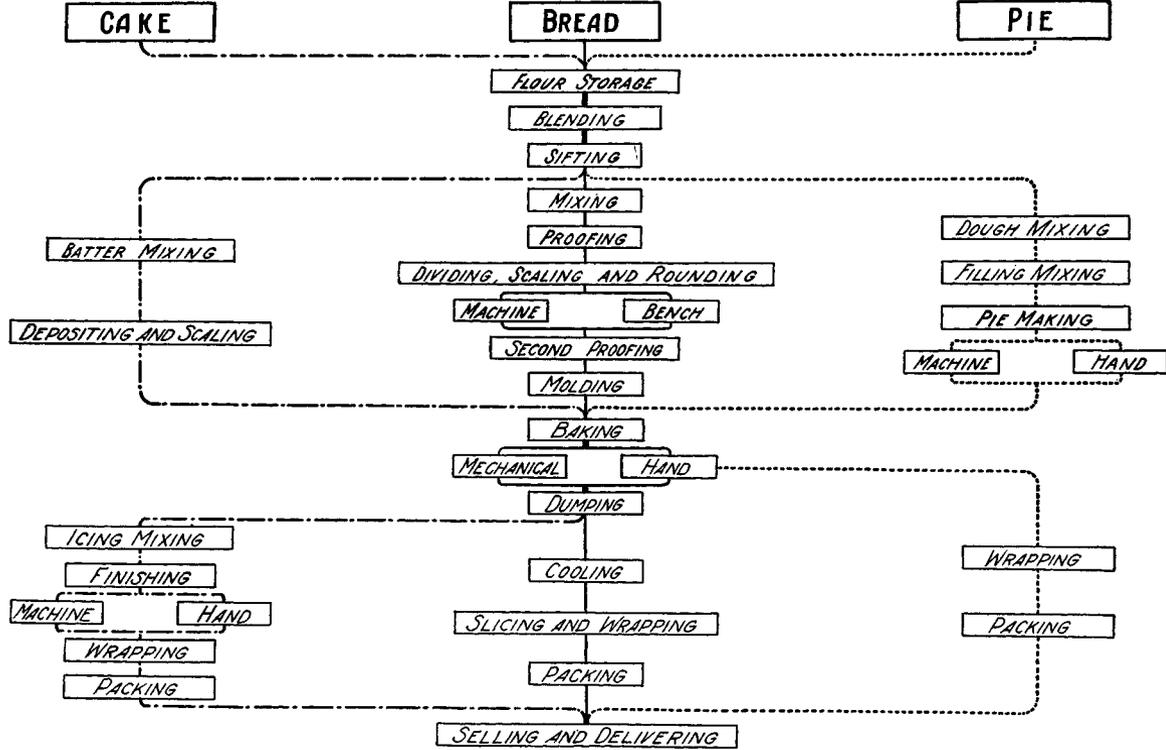
The processes involved in the making of bread are flour blending, mixing, fermentation, dividing or scaling and rounding, proofing, molding or shaping, baking, cooling and wrapping, and delivery. The description of each of these processes is as follows:

Flour blending.—Blending consists of mixing two or more kinds of flour, usually those made from hard and soft wheats but often also those of varying qualities of the same wheat. The old-time baker used only one kind of flour, not knowing the value of blending several varieties, but at present this process is almost universal. Small bakeries ordinarily buy blended flour, but the larger ones do their own blending. The blending is done on the basis of a desired formula, which has been evolved from previous tests of various kinds of flour, showing the chemical and physical reactions of the several grades when combined with other ingredients. In the larger bakeries, the sacks of selected kinds of flour are brought from storage by hand truckers, opened, and then dumped into the various hoppers of the blending machine, under the direction of the blender. This machine thoroughly mixes the various kinds of flour, after which the blended flour is conveyed to the sifting machine. The purposes of sifting are to remove any foreign particles such as cord or string, lint, and splinters, to break up any lumps, and to lighten and aerate the flour. Upon completion of the sifting, the flour is conveyed to the storage bins, which are usually located directly above the mixing room.

Mixing.—In the old days the flour was weighed by hand scales and then mixed with other ingredients (lard, eggs, yeast, sugar, water, etc.) in troughs by hand or with hand paddles. At the present time, a mixing machine is used. The blended flour is drawn off from the

CHART 10

FLOW OF FLOUR AND OTHER INGREDIENTS THROUGH A BAKERY



U.S. BUREAU OF LABOR STATISTICS

storage bins by the mixer, who sets the automatic scales for the desired quantity, thus permitting the correct amount of flour to drop into the dough-mixing and kneading machine. The other ingredients are then added by the mixer, or the helper under his direction, in accordance with the prescribed formula. The necessary period of operation of the mixing machine is controlled by the mixer, the length of time being based either on his experience and judgment or on a definite number of revolutions, as determined by laboratory tests for specific kinds of bread. Certain machines may be set, so that they will automatically stop after a given number of revolutions. Some mixing machines are also equipped with water jackets, which are heated to a specific temperature suitable to start yeast fermentation during the mixing operation, thus reducing by several hours the usual period of fermentation.

In some bakeries, instead of adding each of the other ingredients separately, they are combined into an emulsion or sponge by a special worker known as the sponger. The sponging is done in a vat other than the mixing machine, after which the proper amount is dumped into the latter.

Due to the more thorough kneading the dough receives in the mechanical mixer, the absorption is increased and more loaves of bread per barrel of flour are produced than when mixed by hand. The mechanical mixer also increases many times the quantity of output per man-day. Lastly, it eliminates the unsanitary conditions prevailing under hand kneading.

Fermentation.—A study of yeast and its effect on dough under various temperatures and humidity has changed the process of fermentation from the former "trust to luck" plan, under which flour sacks or a blanket were thrown over the dough, to a system whereby the dough is placed in a specially constructed fermentation room with control of temperature and humidity.

The fermentation room is usually constructed with double walls and windows. The temperature is controlled by means of a thermostat, and humidifiers are used to maintain the desired moisture content of the air. In certain plants there has been installed equipment for washing the air, which transfers the air from the outside into the dough room at the precise degree of temperature and humidity necessary to assure perfect fermentation and rising.

The dough in the mixing machine is mechanically dumped by the mixer into a long trough set on rollers which may be hand-pushed or conveyed by an overhead-trolley system into the fermentation room. In some bakeries, however, the fermentation room is located just below the mixing room, and the dough is dumped through an opening in the floor directly into a trough located underneath. In the fermentation room, the dough is allowed to rise for a definite period of time.

Dividing, scaling, and rounding.—In handicraft days, when the work of kneading a batch of dough and the fermentation or rest period was completed, the bench hands or hand bakers, as they were called, used cutters to divide the dough into pieces of correct size (determined by scales) for a loaf of bread. Other bench hands rounded these pieces into shape and placed them in pans. They were assisted by helpers, whose job consisted of putting the pans on racks, pushing them into a proofing room for the dough to rise again, and bringing other empty pans to the bench hands. Some bench

hands are still employed, particularly in bakeries making specialty goods.

The duties of the above workers, however, have been virtually eliminated by a combination of two machines, known as the divider or scaler and rounder, which are connected by belt conveyors. The dough from the fermentation room is directed through a metal chute into the automatic dividing machine, which cuts it into pieces of uniform weight and size for each loaf of bread. Each dough piece is then carried along by a belt conveyor to the rounding machine, which gives it a kneading and turning action similar to that given by a hand worker. The pieces are automatically dusted with flour while in the machines. The operator of these machines is known as the divider or scaler and rounder.

Proofing.—As the dough pieces come out from the rounding machine, they are next subjected to another rest period for rising or proofing, in order that the cells may develop. One method involves the use of a proofing room which is maintained at a specific temperature and humidity. The dough pieces are first placed in pans, which task is performed by the proofer. The latter is assisted by a helper, whose job consists of supplying the racks with empty pans and pushing the racks of filled pans in and out of the proofing room. Another method consists of the use of a cabinet, pivoted to a base so that it may be revolved, and with drawer compartments on all sides arranged one above the other. The proofer picks up the pieces of dough, as they fall from the rounding machine, and places them in the drawers of the proofing cabinet. The work of the helper consists here of opening and closing the drawers. When the proofing is completed, the dough is removed by the proofer to pans on movable racks, which are pushed by the helper to the molding machine. A third method involves the use of an automatic proofer. The pieces of dough from the rounding machine are delivered automatically in buckets by a conveyor to a traveling proofing cabinet, where they are carried back and forth through an enclosure maintained at a specific temperature and humidity. The speed controls of this system may be varied to any desired time of proofing. At the end of the process, the dough pieces are automatically delivered to the molding machine.

Molding or shaping.—Molding consists of giving the final shape to the dough in forming the loaf. This shaping was done by the hand bakers under the handicraft system, but it is now carried out almost universally by a special molding machine. The shaping in the machine is accomplished by means of feed rolls, spaced at specified distances apart, which flatten the dough and remove some of the gas from it. The dough next passes along to other rolls that further flatten and shape it to correct loaf form. The pieces of dough are now ready to go to the steam-proofing room, where they remain for a short rest period before being removed to the oven. The machine is operated by a molder and helpers.

Baking.—The baking may be done in one of several types of ovens, which are described as follows:

Peel ovens of a stationary type are so constructed that the heat in the back of the oven is less intense than in the front, because the dough placed in the rear is the first to be put in and the last to be taken out. The heat in these ovens is sometimes regulated by control dampers. An implement with a long handle

and broad, thin, shovel-like end, known as a peel, is used by the baker to place the dough into the oven and to remove the baked bread.

Peel ovens of a rotary type consist of a circular baking platform, which is rotated in a circular wall of masonry, with an opening through which the dough pieces, pies, cakes, etc., are placed inside by use of a peel and when baked removed by the same means. Some types of rotary ovens are provided with a mechanical device to assist in unloading. Any bakery products in the oven may be rotated to the oven door for inspection or removal at any time.

Reel ovens usually contain from 4 to 12 swinging shelves, rotating in the oven in a manner similar to a Ferris wheel. They are generally used for such products as cakes, cookies, pies, etc., which are usually placed into the oven as well as removed from it by means of a short-handed peel or asbestos gloves.

Draw plate ovens are equipped with sliding plates or trays mounted on wheels, which rest on the floor of the room outside of the oven. The trays are drawn out with the end resting on the edge of the oven, loaded with pans of dough, and returned into the oven for baking.

Traveling ovens are used for large production. The dough is fed in at one end on an endless conveyor, which passes slowly through a heated compartment and discharges the baked bread from the rear. These ovens may be fed by hand or an automatic conveyor, depending on the equipment of the plant.

In the hand-fed type of oven, racks of dough-filled pans are pushed to the oven, after which the pans are placed on the apron of the conveyor in front of the oven, which automatically carries them through the oven. As the pans are discharged from the oven at the back, the bread is dumped by hand on conveyor belts for the cooling process.

Under the automatic conveyor each dough piece is carried from the molder machine by a belt conveyor and dropped into a waiting pan. The pan is mechanically pushed along, and another empty pan takes its place in position to receive the next piece of dough. This process is continued until a specified number of these pans have been pushed to a place directly in front of the opening of the steamproofing compartment, where the dough gets another short rest period for rising purposes, after which the mechanical device pushes each group of dough-filled pans into the oven.

The oven conveyor carries the dough-filled pans through a space of 100 or more feet heated by gas or other means. Steam injectors are used in some ovens near the place where the dough enters to prevent too rapid drying. The temperature of the oven and speed of the conveyor are under thermostatic control, so arranged that the dough will be thoroughly baked when it reaches the rear of the oven, where it is automatically pushed out.

Each type of oven is usually attended by an ovenman and helpers.

Cooling and wrapping.—In a handicraft or partially mechanized plant, the freshly baked bread is removed by peel from the oven, dumped from the pans on a table, and placed by hand on racks to cool before being taken to the wrapping room. In a thoroughly mechanized plant the freshly baked bread is discharged in a continuous stream from the rear of the traveling oven and dumped from the pans by hand on the apron of the cooling conveyor, which automatically carries it back and forth a specified number of times through the cooling air of the plant or through a specially constructed air-cooled compartment. This conveyor then discharges the load of cooled bread in the wrapping room. The empty pans are placed on another conveyor, which carries them to a machine by which the pans are automatically cleaned and greased, after which they are carried by a conveyor belt back to the molding machine to start another journey.

A large amount of the bread is now sliced and wrapped. There is very little slicing and wrapping done by hand, most of it being performed by automatic machines, although some of the machines are hand-fed. In the highly mechanized bakery, however, the bread from the cooling conveyor system is carried by a conveyor belt

directly into a machine, which automatically slices, wraps, and seals each loaf at a speed of 3,000 or more per hour, or only wraps and seals it, depending on the requirements of the customer.

Delivery.—In the early days bread was carried by delivery boys on foot from door to door in hand baskets. Later the delivery of bread was made by horse and wagon, but this method has now been largely displaced by the automobile. With the building of improved roads, bakery products of all kinds are at present delivered daily by driver-salesmen to surrounding towns and cities and many miles into country districts.

In a highly mechanized bakery, flour enters the blending hoppers, and, with water and other ingredients, goes through the mixer, divider or scaler and rounder, conveyor proofer, molder, and oven, all connected and operated by synchronized motors with chain belts so speeded that the pieces of dough from each machine will automatically pass into the next, and finally come out of the traveling oven in the form of bread, which is sliced, wrapped, and eventually delivered to the consumer, practically free from the touch of human hands.

In such a bakery, producing 600 or 700 loaves of bread per hour and employing only one person at the feed end of the traveling oven and one or two at the delivery end, with an occasional person at other automatic machines to see that they are operating correctly, with a few helpers scattered here and there, it can readily be seen that, although some skilled workers are employed, many others have been eliminated.

Cake Making

In the early days of cake making, as in the case of bread, the flour, sugar, butter, etc., were each weighed out on hand scales, placed in mixing bowls, and stirred with wooden paddles or by hand. Under present methods, the various ingredients are weighed or measured according to formula and poured in their proper order into a power-driven mixing machine. This material, when thoroughly mixed, is known as batter. The next process is that of batter scaling. The newly mixed batter is poured into the hopper of a machine, which is operated by two persons, one placing the empty pans under the batter-depositing device, and the other regulating the machine to deposit a specified quantity of batter in each pan. The correct working of the machine is checked by occasionally weighing a filled pan. The filled pans are removed and placed on movable racks, which are pushed to the ovens. The methods of baking are the same as that for bread.

The icing for a cake is prepared in a similar machine as that used in mixing cake batter. The work of spreading this icing smoothly upon layers of cake, or over the tops and around the sides, is known as finishing. This is done by hand, with the aid of a frosting spatula, although machines are used for spreading the icing over the tops of some grades of cake or bread.

Pie Making

One of the most skilled, as well as most difficult, operations in the making of pies, is that of rolling by hand, with the aid of a rolling pin, the bottom and top crusts to the correct thickness. The difference

between hand and machine work is strikingly illustrated by a statement inserted in the catalog of a pie-crust-rolling-machine manufacturer, which reads as follows: "An experienced, high-priced baker can roll only about 125 crusts per hour. With the rolling machine any boy or girl at low wages can do this work at the rate of at least 1,200 per hour." Another of the problems of pie making is the depositing of the "filling", for some types, such as custard and pumpkin pies. This is done after the pie shells are placed in the oven. By the old method, the baker used a long handled dipper, frequently spilling part of the contents on the oven floor. Under the newer method, pie "filling" is supplied to the pie shells in the oven through a long pipe, connected by hose from a supply tank, the contents of which are kept in circulation by a motor-driven pump. The supply pipe is equipped with a valve controlled by a trigger, which when pressed discharges the correct amount of "filling" for each pie. Other special machines are used to trim and mark the edge of the pies much more rapidly than can be done by hand.

In some pie plants an automatic machine is used for rolling the crust, crimping, trimming, etc. This machine is operated by five attendants, each being stationed at a given point about the machine and performing specific duties as it rotates. The bottom crust is rolled on the first crust roller, the pan containing the bottom crust is placed in the carrier of the machine, and the edge of the bottom crust is automatically moistened. "Filling" is then put in, and, as the pie passes the second or top roller, the top crust is rolled, stamped, and put in place. The edges of the pie are next automatically trimmed and crimped, and the completed pie, which requires one full rotation of the machine, is discharged onto a conveyor or turntable, ready for the oven. The speed of these machines is such that they have a capacity of as many as 15 to 30 pies per minute, or an average of approximately 1,500 to 3,000 pies per attendant in an 8-hour day, as compared with an estimated output of 350 to 450 pies for the same period by a skilled hand worker.

PART 2

Glossary of Occupations

New occupational terminology emerges with each division of labor. This is especially true during periods of rapid mechanization. Although occupational terms have a tendency toward uniformity, quite often they will differ not only from one locality to another but also from one plant to the next. This accounts for the multiplicity of terms in the baking industry.

The occupational terms listed below have been found in the various plants visited by the field representatives of the Bureau. For glossary purposes, nearly all of these have been described here, irrespective of the number of employees found under each term. In those instances where the same work was performed under two or more occupational names, the description is given under the most common term, with the proper cross-references made under the other terms.

The last column in the glossary gives the occupational class in which the occupation was included in the compilation of the wages and hours data. When an individual occupation was used, the name of the

occupation is given; otherwise, there is presented the grouping in which the occupation was included. This is done by means of a key, which is as follows:

Direct labor, male:

Miscellaneous:

Skilled, DL-I.

Semiskilled, DL-II.

Unskilled, DL-III.

Indirect labor, male:

Maintenance and repair:

Skilled, MR-I.

Semiskilled, MR-II.

Service, unskilled, SE-III.

Supervisory, skilled, SU.

Miscellaneous:

Skilled, IL-I.

Semiskilled, IL-II.

Unskilled, IL-III.

Skill not specified.

Direct and indirect labor, female: Miscellaneous, skill not specified, MS.

Occupational Terms, Definitions, and Classification in the Baking Industry

Plant occupational term	Description of work performed	Classified by Bureau under—
Accountant.....	Coordinates accounting records, prepares profit and loss statements and balance sheets, and compiles reports required by executives of firm. May also be in charge of accounting force.	Male: Auditors, bookkeepers, etc. ¹ Female: (MS).
Apprentice.....	A learner of direct labor, usually under contract for specified number of years, performing work of various bakery occupations under supervision of journeyman baker.	Male: (DL-II).
Assistant foreman, working.	A supervisor who also performs actual work, usually direct labor.	Male: (SU).
Assistant mixer.....	(See Mixer's helper).....	Male: Mixer's helpers. ²
Auditor.....	Makes investigations, revisions, and installations in connection with new accounting systems; supervises work on cost accounting problems, inventories, and equipment records; and prepares fiscal statements and reports.	Male: Auditors, bookkeepers, etc. ¹ Female: (MS).
Automobile mechanic.....	Makes major and minor repairs to delivery trucks of firm.	Male: (MR-I).
Automobile mechanic's helper.	Semiskilled workman who assists automobile mechanic.	Male: (MR-II).
Batter depositor.....	Assists in operation of batter depositing machine, which automatically measures correct amount of batter poured into each cake pan. This machine is tended by two persons, one placing empty pans beneath depositing device, and other regulating quantity of batter going into pans, removing filled pans, and placing them on racks. Occasionally, the latter also weighs unit of batter deposit to determine whether or not machine is scaling correctly. These men may alternate on jobs. (See Batter scaler.)	Male: Cake makers.
Batter mixer.....	(See Cake maker.)	Male: Cake makers. ³
Batter scaler.....	Supervises operation of batter depositing machine, which automatically measures correct amount of batter poured into each cake pan; regulates quantity of batter going into pans; and occasionally weighs or scales filled pans as batter is dropped into them from depositing machine, to determine whether latter is scaling correctly. Assisted by batter scaler's helper. These persons take the place of two batter depositors found in certain shops. (See Batter depositor.)	Female: (MS). Male: Cake makers. ³
Batter scaler's helper.....	Supplies batter scaler with empty pans, places filled pans on a rack and pushes rack to oven.	Male: General helpers.
Belt man, conveyor.....	Works at end of belt or conveyor, which carries bread from oven to wrapping room, removing each loaf of bread from conveyor and placing it on bread rack to cool before wrapping.	Male: (IL-III).
Belt man, repairer.....	Installs and repairs power transmission belts throughout plant.	Male: (MR-II).
Belt man's helper, conveyor.	Pushes racks, on which bread has been placed for cooling, to wrapping table.	Male: General helpers.
Bench baker's helper.....	(See Bench hand's or hand baker's helper.).....	Male: Bench hands' or hand bakers' helpers. ² Female: (MS).
Bench hand or hand baker.	Kneads or pounds dough used in making rye or Vienna bread or rolls; divides dough into pieces of required weight for loaves of bread or rolls; rounds, rolls, and molds these pieces into shape; and places them in bread pans for baking.	Male: Bench hands or hand bakers. Female: (MS).
Bench hand, pastry.....	(See Cake maker.).....	Male: Cake makers. ³ Female: (MS).
Bench hand's (or hand baker's) helper.	Supplies bench hands or hand bakers with empty bread pans, racks the dough-filled pans, and shoves them into the steam proofing room.	Male: Bench hands' or hand bakers' helpers. ² Female: (MS).
Billing clerk.....	Makes out bills and statements to customers, keeps daily record of shipments, and may also post accounts.	Male and female: Office clerks. ⁴

See footnotes at end of table.

Plant occupational term	Description of work performed	Classified by Bureau under—
Blacksmith.....	Welds metal parts of machinery by hand, does horse-shoeing on animals used for delivery, and sometimes repairs wagons.	Male: (MR-I).
Blender.....	Tends power-driven blending machine, which mixes or blends different kinds of flour to secure required mixture. Opens bags and dumps flour into machine, or operates slide which releases flour from storage bins on floor above and allows it to pass through chute into machine. May be assisted by helpers.	Male: (DL-II).
Blender's helper.....	Assists blender by placing bags of flour conveniently near and helps dump them into hopper of machine.	Male: General helpers.
Bookkeeper, clerical.....	Enters transactions in cash and ledger books, prepares monthly statements to charge customers, makes daily settlements with driver-salesmen, etc.	Male and female: Office clerks. ⁴
Bookkeeper, expert.....	Coordinates records, makes general ledger entries, prepares profit and loss statements and balance sheets, and writes checks in payment of bills owed by company.	Male: Auditors, bookkeepers, etc. ¹ Female: (MS).
Bookkeeping-machine operator.....	Keeps record of charge accounts on bookkeeping machine, prepares monthly statements to be sent to customers, etc.	Male and female: Office clerks. ⁴
Box maker or repairer.....	Makes and repairs crates and boxes in which bread is packed and shipped.	Male: (MR-II).
Box repairer.....	(See Box maker or repairer).	Male: (MR-II).
Bread dumper.....	Dumps bread from pans as they come out of oven, places empty pans on belt conveyor for return to cleaning room, and frequently places bread on racks for cooling before being wrapped.	Male: Ovenmen's helpers.
Bread dumper and racker.....	(See Bread dumper).	Male: Ovenmen's helpers.
Bread dumper's helper.....	Places loaves of bread on cooling rack and pushes latter into wrapping room after bread has cooled.	Male: Ovenmen's helpers.
Bread icer.....	(See Icing-machine tender).	Male: (DL-II). Female: (MS).
Bread packer.....	Makes up orders of bakery products for driver-salesmen or for shipment from bakery and places them on racks, in baskets, or in shipping boxes.	Male: Bread packers. ⁶ Female: (MS).
Bread packer's helper.....	(See Packer's helper).	Male: (IL-III).
Bread racker.....	Places baked bread, after it has been dumped out of pans, on rack or slow-moving conveyor for cooling and shoves racks to wrapping room after bread is cooled.	Male: Ovenmen's helpers.
Bread slicer, automatic.....	Feeds loaves of bread into machine, which automatically slices, wraps and seals them, watches operation, and straightens loaves that are not going through properly.	Male: Bread wrappers, automatic. Female: (MS).
Bread slicer, hand.....	Feeds loaf of bread into slicing machine, which he operates by hand. Another employee wraps and seals each sliced loaf by hand, as it comes from machine.	Male: (DL-III). Female: Bread wrappers, hand.
Bread wrapper, automatic.....	Feeds loaves of bread into wrapping machine, which may automatically slice as well as wrap and seal them; watches operation; and straightens loaves not going through properly.	Male: Bread wrappers, automatic. Female: (MS).
Bread wrapper, hand.....	Places each loaf of bread on sheet of paper of specific size, and wraps and seals it by hand.	Male: (DL-III). Female: Bread wrappers, hand. ⁵ Male: (MR-I).
Brick mason.....	Uses stone, brick, or cement to form or repair floors, foundations, walls, walks, etc.	Male: Molders. ³ Female: (MS).
Bun panner.....	Places rounded and molded pieces of bun dough, as they come from molding machine, in pans for baking.	Male: Molders. ³ Female: (MS).
Buyer.....	Makes purchases of materials and supplies used in operation of bakery.	Male: Auditors, bookkeepers, etc. ¹
Cabinet man.....	Places pieces of dough, as they come from rounder, in drawers of cabinet for proofing.	Male: (DL-II).
Cabinet man's helper.....	Assists cabinet man by opening and closing drawers of proofer, loading dough on movable racks, and pushing racks over to molder.	Male: General helpers.
Cabinet proofer.....	(See Cabinet man).	Male: (DL-II).
Cake decorator.....	(See Decorator, cake).	Male: (DL-II). Female: Cake finishers. ⁵
Cake dumper.....	(See Dumper, cake).	Male: Ovenmen's helpers.
Cake finisher, hand.....	Spreads filling and icing on cake by means of a flat broad-bladed knife, known as spatula.	Male: (DL-II). Female: Cake finishers. ⁵
Cake finisher, machine.....	(See Icing-machine tender).	Male: (DL-II).

See footnotes at end of table.

Plant occupational term	Description of work performed	Classified by Bureau under—
Cake froster.....	(See Cake finisher, hand).....	Male: (DL-II). Female: Cake finishers. ⁵
Cake icer, hand.....	(See Cake finisher, hand).....	Male: (DL-II). Female: Cake finishers. ⁵
Cake icer, machine.....	(See Icing-machine tender).....	Male: (DL-II).
Cake icer's helper.....	(See Finisher's helper, cake).....	Male: General helpers. Female: (MS).
Cake ingredient mixer.....	(See Cake maker).....	Male: Cake makers. ³ Female: (MS).
Cake ingredient mixer's helper.....	(See Cake maker's helper).....	Male: Mixer's helpers. ³ Female: (MS).
Cake ingredient scaler.....	(See Ingredient scaler).....	Male: (DL-I).
Cake maker.....	Measures or weighs according to formula materials used in preparation of cake, such as flour, sugar, eggs, milk, etc., when this work is not done by ingredient scaler, and feeds them in proper order and quantities into power-driven mixing machine.	Male: Cake makers. ³ Female: (MS).
Cake maker's helper.....	Supplies cake maker with cake ingredients and empty cakepans, places pans filled with batter on racks, and shoves them over to oven.	Male: Mixers' helpers. ³ Female: (MS).
Cake mixer.....	(See Cake maker).....	Male: Cake makers. ³ Female: (MS).
Cake ovenman.....	(See Peel, reel, or draw-plate ovenman).....	Male: Ovenmen.
Cake ovenman's helper.....	(See Peel ovenman's helper).....	Male: Ovenmen's helpers.
Cake packer.....	(See Cake wrapper and packer).....	Male and female: Cake wrappers and packers. ⁴
Cakepan cleaner.....	(See Pan cleaner, hand).....	Male: (IL-III). Female: (MS).
Cakepan greaser.....	(See Pan greaser).....	Male: Pan greasers. ⁶ Female: (MS).
Cakepan liner.....	(See Pan liner).....	Male: (DL-II). Female: (MS).
Cakepan washer.....	(See Pan washer).....	Male: (IL-II).
Cakepeeler.....	(See Peeler, cake).....	Male: General helpers. Female: (MS).
Cake wrapper and packer.....	Wraps cake in waxed paper, places label on package, puts several packages in a box, stamps name of cake on latter and sends it to stock room.	Male and female: Cake wrappers and packers. ⁴
Car greaser.....	Oils and greases automobiles and changes motor oil.	Male: (MR-II).
Car washer.....	Washes and polishes bakery trucks and passenger cars.	Male: (MR-II).
Carpenter.....	Repairs and makes changes in structure of bakery and constructs and repairs shipping boxes.	Male: (MR-I).
Carpenter's helper.....	Assists carpenter in repair and upkeep of buildings and does other related work under supervision.	Male: (MR-II).
Carton assembler.....	Opens and assembles cartons that are folded flat when purchased.	Male: (MR-II).
Cashier.....	Receives cash from driver-salesmen and credits same to salesmen's accounts; receives also order sheets from driver-salesmen and assists in figuring quotas.	Male: Auditors, bookkeepers, etc. ¹ Female: (MS).
Cement finisher.....	Lays or repairs cement or concrete walks, floors, etc.; may also make repairs or aid in erection of bases for machinery.	Male: (MR-I).
Chauffeur, driver.....	Makes deliveries on rush orders, when no regular special delivery driver is immediately available, and drives officials on trips in passenger cars.	Male: Chauffeurs and drivers. ¹
Checker.....	Checks record showing kind and quantity of bakery products that are taken out by driver-salesmen for delivery to customers.	Male and female: Office clerks. ⁴
Cleaner, floors.....	Cleans and sweeps floors of plant.....	Male: (SE-III). Female: (MS).
Cleaner, pan, hand.....	(See Pan cleaner, hand).....	Male: (IL-III).
Cleaner, pan, machine.....	(See Pan cleaner, machine).....	Male: (IL-II).
Clerk, factory.....	Checks kinds and amount of materials and products entering and leaving the various departments and keeps individual time and production records.	Male and female: Office clerks. ⁴
Clerk, office.....	(See Office clerk).....	Male and female: Office clerks. ⁴
Clerk, store.....	(See Store clerk).....	Male: (IL-II). Female: Store clerks.
Coal wheeler.....	Wheels coal from dump to boiler or may shovel it onto conveyor.	Male: (IL-III).
Collector, route.....	Collects for sales of bakery products delivered by driver-salesmen and not paid for at time of delivery.	Male: (IL-I).
Comptometer operator.....	Operates comptometer to make or check computations in connection with time cards, bonus sheets, and pay rolls, accounts receivable, etc.	Female: Stenographers, typists, telephone operators, etc. ⁵

See footnotes at end of table.

Plant occupational term	Description of work performed	Classified by Bureau under—
Conveyor man, belt.....	(See Belt man, conveyor).....	Male: (II-III).
Conveyor man's helper, belt.....	(See Belt man's helper, conveyor).....	Male: General helpers.
Cookie maker.....	(See Cake maker).....	Male: Cake makers. ³ Female: (MS).
Cookie maker's helper.....	(See Cake maker's helper).....	Male: Mixers' helper. ² Female: (MS).
Cooling-machine operator.....	Places loaves of bread in automatic cooling machine.	Male: (II-III).
Cost accountant.....	Figures and tabulates cost of production in various departments and determines production bonuses.	Male: Auditors, bookkeepers, etc. ¹
Cost clerk.....	Prepares, under supervision of cost accountant, daily, monthly, or other detailed cost statements from data supplied by various departments and keeps cumulative records for checking costs against current expenditures.	Male and female: Office clerks. ⁴
Crate maker.....	(See Box maker or repairer).....	Male: (MR-II).
Crate repairer.....	(See Box maker or repairer).....	Male: (MR-II).
Cruller maker.....	(See Doughnut-machine operator).....	Male: Cake makers. ³ Female: (MS).
Cruller-maker's helper.....	(See Doughnut-machine operator's helper).....	Male: General helpers. Female: (MS).
Custard or soft-filling mixer.....	(See Pie-filling mixer).....	Male: (DL-I).
Cut-off dough man.....	(See Dough cut-off man).....	Male: Mixers' helpers. ²
Decorator, cake.....	Uses cone-shaped bag fitted with nozzle or syringe, from which is squeezed icing to form decorative designs on cake.	Male: (DL-II). Female: Cake finishers. ⁵
Deliveryman, not sales....	(See Special-delivery driver).....	Male: (II-II).
Deliveryman, sales.....	(See Driver-salesman).....	Male: Driver-salesmen. Female: (MS).
Demonstrator, advertising.....	Posted temporarily in store of retailer to give small samples to customers, explain ingredients of products, and distribute sales literature.	Male: (II-II). Female: (MS).
Depositor, batter.....	(See Batter depositor).....	Male: Cake makers. ³
Divider or scaler and rounder.....	Sets dividing or scaling machine for desired weight of loaf of bread, turns on and off power that operates machine, and occasionally weighs scaled pieces of dough to ascertain whether machine is working correctly; also tends conveyor and rounding machine, as each piece of dough is automatically dropped by dividing machine onto conveyor, which carries it to rounding machine to be rolled and rounded.	Male: Dividers or scalers and rounders. ³
Divider's and molder's helper.....	(See Divider's or scaler's or rounder's helper).....	Male: General helpers.
Divider's or scaler's and rounder's helper.....	Assists divider or scaler and rounder in any capacity required, such as cleaning and keeping machines in operating condition.	Male: General helpers.
Dough cut-off man.....	Cuts dough in troughs into convenient-sized pieces and dumps latter into the chute leading to dividing machine or make-up room.	Male: Mixers' helpers. ²
Dough kneader.....	(See Dough puncher).....	Male: Mixers' helpers. ²
Dough panner.....	Puts molded dough into oven pans and places latter on racks.	Male: Molders. ³ Female: (MS).
Dough puncher.....	Punches down and kneads dough in troughs before it is dumped down chute leading to dividing machine or make-up room.	Male: Mixers' helpers. ²
Dough twister.....	Picks up pieces of dough from conveyor leading to molding machine, twists them by hand to desired shape, and places them in oven pans for baking.	Male: Molders. ³ Female: (MS).
Dough-brake-machine operator.....	Feeds dough through various automatic rolls of dough-brake machine, putting it each time into machine at a different angle to even and strengthen grain of mixture.	Male: Molders. ³
Doughnut fryer.....	(See Doughnut-machine operator).....	Male: Cake makers. ³ Female: (MS).
Doughnut-machine operator.....	Feeds sweetened dough into hopper of automatic machine, which stamps out doughnuts; drops latter into molten fat to fry; dumps them into basket to cool and drain before wrapping and packing.	Male: Cake makers. ³ Female: (MS).
Doughnut-machine operator's helper.....	Removes doughnuts from draining baskets, where they have been dumped by machine, and delivers them to wrappers and packers.	Male: General helpers. Female: (MS).
Doughnut man.....	(See Doughnut-machine operator).....	Male: Cake makers. ³
Draw-plate ovenman.....	Places pans of dough in drawers of oven, closes drawers, and, after baking is completed, pulls out drawers and removes pans.	Male: Ovenman.

See footnotes at end of table.

Plant occupational term	Description of work performed	Classified by Bureau under—
Draw-plate ovenman's helper.	Pushes racks of panned dough from proofing room to oven, takes pans of baked bread from ovenman to dump bread onto conveyor or place it on racks for cooling, and sets empty pans on racks or conveyor for return to cleaner.	Male: Ovenman's helpers.
Driver-chauffeur, not sales.	(See Chauffeur, driver).	Male: Chauffeurs and drivers. ¹
Driver-salesman.	Travels over specified route or territory delivering orders, collecting for sales, and soliciting new business.	Male: Driver-salesmen.
Driver-salesman's helper.	Assists driver-salesman in loading truck and delivering goods to customers.	Male: (IL-III).
Driver, truck.	Loads truck with supplies or products and drives it from or to shipping terminal.	Male: Chauffeurs and drivers. ¹
Dumper, bread.	(See Bread dumper; also traveling-oven dumper)	Male: Ovenmen's helpers.
Dumper, cake.	Dumps cake from pans, after cooling, onto conveyor or table around which wrappers and packers or finishers work.	Male: Ovenmen's helpers.
Dumper, rolls.	(See Roll dumper).	Male: Ovenmen's helpers.
Dumper, traveling oven.	Stands back of traveling oven, dumping bread from pans onto conveyor belt, which carries it to cooling racks, and places empty pans on another conveyor, which takes them to cleaners.	Male: Ovenmen's helpers.
Dumper's helper.	(See Bread dumper's helper).	Male: Ovenmen's helpers.
Egg breaker.	Breaks eggs by hand, separating yolks from whites, and places each into machine, which beats them for cake batter or icing.	Male: (DL-II).
Electrician.	Installs and repairs electric apparatus and maintains wiring system for lights and power.	Male: (MR-I).
Elevator man.	Operates elevator used to convey up or down employees and materials.	Male: (SE-III).
Engineer.	Supervises operation and maintenance of electric- or steam-power equipment and stands regular watch; may also do repair work.	Male: (IL-I).
Engineer, machinery repair.	Repairs and maintains plant equipment other than electric motor-power machinery.	Male: (MR-I).
Errand boy.	Carries repair parts, supplies, orders, or instructions to and from various departments as directed.	Male: (SE-III).
Factory clerk.	(See Clerk, factory).	Male and female: Office clerks. ⁴
Feeder, traveling oven.	(See Oven feeder).	Male: Ovenmen's helpers.
File clerk.	Indexes and files correspondence, reports, requisitions, etc.; may also do typing and assist in minor clerical duties.	Male and female: Office clerks. ⁴
Finisher, cake, hand.	(See Cake finisher, hand).	Male: (DL-II). Female: Cake finishers. ⁵
Finisher, cake, machine.	(See Icing machine tender).	Male: (DL-II).
Finisher, pie.	Mixes meringue by hand or machine and spreads it on pies; may also spread strips of dough across face of open pies.	Male: (DL-I).
Finisher's helper, cake.	Supplies icing from mixing machine to finishers and places finished cakes on racks or conveyors for delivery to wrapper and packer.	Male: General helpers. Female: (MS).
Fireman, oven.	(See Oven fireman).	Male: (DL-II).
Fireman, power-house.	Maintains steam pressure in boiler by hand firing, automatic stoking, or oil-burner operation; may also maintain water level in boiler, which is ordinarily done by water tender.	Male: (IL-II).
Flour blender.	(See Blender).	Male: (DL-II).
Flour blender's helper.	(See Blender's helper).	Male: General helpers.
Flour sifter.	Operates power-driven sifting machine to remove any foreign substances from flour and to aerate it, usually in connection with blending.	Male: (DL-II).
Foreman, assistant, working.	(See Assistant foreman, working).	Male: (SU).
Foreman, working.	A supervisor who also performs actual work at any one of various machines; is frequently assisted by a helper.	Male: (SU).
Fried-cake maker.	(See Doughnut-machine operator).	Male: Cake makers. ³ Female: (MS).
Fried-cake maker's helper.	(See Doughnut-machine operator's helper).	Male: General helpers. Female: (MS).
Froster, cake.	(See Cake finisher, hand).	Male: (DL-II). Female: Cake finishers. ⁵
Fruit cooker.	(See Pie-filling mixer).	Male: (DL-I).
Fruit mixer.	(See Pie-filling mixer).	Male: (DL-I).
Gang pusher.	Sets gang for work and supervises gang in repairing, maintaining, or constructing equipment.	Male: (SU).

See footnotes at end of table.

Plant occupational term	Description of work performed	Classified by Bureau under—
Gasman, filling station.....	Services delivery trucks with oil and gasoline before each trip of driver-salesman.	Male: (SE-III).
General all around helper.....	Has no specific duties but assists at any machine or in any job where help is needed.	Male: General helpers.
General bakery helper.....	(See General all around helper).....	Male: General helpers.
General cake-maker's helper.....	Has no specific duties, but performs such work as washing, cleaning, and racking pans and placing racks conveniently for cake makers.	Male: General helpers. Female: (MS).
General helper.....	(See General all around helper).....	Male: General helpers.
General machine helper.....	(See General all around helper).....	Male: General helpers.
Greaser.....	(See Pan greaser or machine pan cleaner and greaser).....	Male: Pan greasers. ³ Female: (MS).
Grinder, sugar.....	(See Sugar grinder).....	Male: (DL-II).
Hand baker.....	(See Bench hand or hand baker).....	Male: Bench hands or hand bakers. Female: (MS).
Hand baker's helper.....	(See Bench hand's or hand baker's helper).....	Male: Bench hands' or hand bakers' helpers. Female: (MS).
Handyman, semiskilled.....	(See Utility man, semiskilled).....	Male: (MR-II).
Handyman, unskilled.....	Assists labor gangs where needed; and may sweep floors, wash windows, etc.	Male: (MR-II).
Helper, belt man's, conveyor.....	(See Belt man's helper, conveyor).....	Male: General helpers ¹
Helper, dough mixer.....	(See Mixer's helper).....	Male: Mixers' helpers. ²
Horseshoer.....	(See Blacksmith).....	Male: (MR-I).
Icer, bread.....	(See Icing-machine tender).....	Male: (DL-II). Female: (MS).
Icer, cake, hand.....	(See Cake finisher, hand).....	Male: (DL-II). Female: Cake finishers. ⁴
Icer, cake, machine.....	(See Icing-machine tender).....	Male: (DL-II).
Icer's helper, cake.....	(See Finisher's helper, cake).....	Male: General helpers. Female: (MS).
Icing beater.....	(See Icing maker).....	Male: (DL-I).
Icing-machine tender.....	Tends icing machine, which deposits layer of icing on bread, rolls or cakes; or may spread filling on layer cakes as they pass on conveyor under apertures of machine.	Male: (DL-I).
Icing maker.....	Feeds sugar, eggs, and other ingredients in proper order and quantity into a power-driven mixing machine.	Male: (DL-I).
Icing maker's helper.....	Places ingredients used in preparation of icings conveniently near icing maker and takes prepared icings to icer.	Male: General helpers
Icing mixer.....	(See Icing maker).....	Male: (DL-I).
Icing mixer's helper.....	(See Icing maker's helper).....	Male: General helpers
Ingredient scaler.....	Weights or measures, according to formula, ingredients, such as eggs, flour, sugar, milk, etc., used in making batches of cake batter or icing.	Male: (DL-I).
Ingredient scaler's helper.....	Places ingredients, which are to be weighed or measured, conveniently near the ingredient scaler.	Male: Mixer's helpers. ²
Inventory clerk.....	Keeps stock records, investigates discrepancies in receipt of materials, and orders transfer of materials from one plant to another; may have charge of salvage sales.	Male: Office clerks. ⁴
Janitor.....	Does general cleaning around plant, such as sweeping and scrubbing.	Male: (SE-III).
Kneader, dough.....	(See Dough puncher).....	Male: Mixers' helpers. ²
Labeler.....	Places union and trade-mark labels on loaves of bread in union shops, and, in other shops, attaches trade-mark seals on loaves of wrapped bread at a point where the edges of the paper are brought together.	Male: (IL-III). Female: (MS).
Laborer, boss.....	Supervises work of unskilled laborers; may also do actual work.	Male: (SU).
Laborer.....	Performs general unskilled work about plant, such as unloading supplies, stacking them in warehouse, hand trucking, etc.	Male: Laborers. ¹
Liner, pan.....	(See Pan liner).....	Male: (DL-II). Female: (MS).
Loader, truck.....	(See Truck loader).....	Male: (IL-III).
Machine cleaner.....	Uses cotton waste to clean machine equipment; may also oil and grease machinery.	Male: (MR-II).
Machine mixer.....	(See Mixer).....	Male: Mixers. ³
Machine molder.....	(See Molder).....	Male: Molders. ³
Machine molder's helper.....	(See Molder's helper).....	Male: General helpers.
Machine pan cleaner and greaser.....	Tends machine that scrapes from bread pans dried crusts, which form in them during process of baking, and greases pans in one operation.	Male: (IL-II).

See footnotes at end of table.

Plant occupational term	Description of work performed	Classified by Bureau under—
Machine pan cleaner and washer.	Tends machine equipped with revolving brushes shaped to fit bread pans, which cleans out crust and washes pans in one operation.	Male: (IL-II).
Machinist.....	Sets up, adjusts, and repairs machinery and other operating equipment.	Male: (MR-I).
Machinist's helper.....	Assists machinist in installation and adjustment of machinery.	Male: (MR-II).
Mason.....	(See Brickmason)	Male: (MR-I).
Mechanic.....	(See Machinist)	Male: (MR-I).
Mechanic's helper.....	(See Machinist's helper)	Male: (MR-II).
Meringuer, pie.....	(See Finisher, pie)	Male: (DL-I).
Messenger.....	(See Errand boy)	Male: (SE-III). Female: (MS).
Mill operator.....	(See Blender)	Male: (DL-II).
Mixer.....	Weighs or measures, according to formula, all ingredients that go into batch of dough, dumps them into mixing machine, closes machine, turns on power, and, after batch is mixed, turns off power. In small bakeries, where no mixer's helpers or apprentices are employed, also punches down and kneads dough and dumps it into chutes leading to dividing machine or make-up room.	Male: Mixers. ³
Mixer, batter.....	(See Cake maker.)	Male: Cake makers. ³ Female: (MS).
Mixer, icing.....	(See Icing maker)	Male: (DL-I).
Mixer's assistant.....	(See Mixer's helper)	Male: Mixers' helpers. ²
Mixer's helper.....	Assists mixer in dumping dough from mixing machine into troughs, in punching and kneading dough in troughs, and in dumping it into chute leading to dividing machine or make-up room.	Male: Mixers' helpers. ²
Mixing-machine operator.....	(See Mixer)	Male: Mixers. ³
Mixing-machine operator's helper.....	(See Mixer's helper)	Male: Mixers' helpers. ³
Molder or panner.....	Tends molding machine and watches pieces of dough falling from proofer into moulding machine and from latter into baking pans, placing properly those pieces which do not fall correctly. In bakeries not equipped with automatic machinery, feeds pieces of dough by hand into molding machine, and, after molding, picks them up and places them in baking pans.	Male: Molders. ³
Molder's helper.....	Places empty bread pans conveniently near molder, sets dough-filled pans on racks, and shoves loaded racks into steam proofing room.	Male: General helpers.
Multigraph operator.....	Operates multigraph machine to produce form letters and reports in large numbers; may also keep necessary stocks of stationery, ink, etc.	Female: Stenographers, typists, telephone operators, etc. ³
Office boy.....	(See Errand boy)	Male: (SE-III).
Office clerk.....	Does general office work, such as filing, typing, operating adding or calculating machine, etc.	Male and female: Office clerks. ⁴
Office manager.....	Supervises clerical routine of office; may also have charge of office personnel, make incidental purchases, etc.	Male: Auditors, bookkeepers, etc. ¹
Oiler, machinery.....	Oils motors, conveyors, and other plant machinery	Male: (MR-II).
Operator, multigraph.....	(See Multigraph operator)	Female: Stenographers, typists, telephone operators, etc. ³
Order clerk.....	Takes telephone orders, assembles, wraps, and packs them for delivery.	Male: (IL-II).
Oven dumper.....	(See Dumper, traveling oven)	Male: Ovenmen's helpers.
Oven feeder.....	Under supervision of traveling ovenman, places pans of dough on conveyor of traveling oven, which carries them through the oven as they are being baked.	Male: Ovenmen's helpers.
Oven feeder, traveling oven.....	(See Oven feeder)	Male: Ovenmen's helpers.
Oven feeder's helper.....	Pushes racks of dough-filled pans to oven and places them conveniently near oven feeder.	Male: Ovenmen's helpers.
Oven fireman.....	Starts and maintains fires under oven; keeps burners clean, if oil or gas is used; shovels coal into furnace, if coal is used.	Male: (DL-II).
Ovenman.....	(See Draw-plate ovenman, peel ovenman, reel ovenman, and traveling ovenman.)	Male: Ovenmen.
Ovenman's helper.....	(See Bread dumper, bread racker, oven feeder, oven dumper, and peel ovenman's helper.)	Male: Ovenmen's helpers.
Packer, bread.....	(See Bread packer)	Male: Bread packers. ⁶
Packer, cake.....	(See Cake wrapper and packer)	Female: (MS). Male and female: Cake wrappers and packers. ⁴

See footnotes at end of table.

Plant occupational term	Description of work performed	Classified by Bureau under—
Packer's boy.....	Performs light work about packing department, such as running errands, placing cartons, baskets, etc., conveniently for packing, etc.	Male: (IL-III).
Packer's helper.....	Supplies packer with baskets or shipping boxes and, after they are filled, trucks them to delivery truck loader or shipping room.	Male: (IL-III).
Packing-box maker.....	(See Box maker or repairer).....	Male: (MR-II).
Packing-box repairer.....	(See Box maker or repairer).....	Male: (MR-II).
Painter.....	Paints woodwork and equipment in plant; may also paint and letter delivery trucks.	Male: (MR-I).
Painter's helper.....	Removes old paint, cleans surfaces, passes materials and equipment, etc.; may also do some painting.	Male: (MR-II).
Pan catcher.....	Removes empty bread pans from conveyor as they are returned from bread dumpers, and racks them for delivery to pan cleaners and greasers.	Male: (IL-III).
Pan cleaner, hand.....	Uses scraper to remove dried crusts formed in oven pans during baking.	Male: (IL-III).
Pan cleaner, machine.....	(See Machine pan cleaner and washer).....	Male: (IL-II).
Pan greaser.....	Greases pans to prevent dough from sticking while baking and places pans on racks, either shoving racks to molder or placing them on conveyor for delivery to molder.	Male: Pan greasers. ⁶ Female: (MS).
Pan liner.....	Places in bottom and around rim of each pan a layer of waxed paper to prepare pan for cake batter.	Male: (DL-II). Female: (MS).
Pan paperer.....	(See Pan liner).....	Male: (DL-II). Female: (MS).
Pan racker.....	(See Molder's helper).....	Male: General helpers.
Pan setter.....	(See Pan catcher).....	Male: (IL-III).
Pan washer.....	Washes bread pans by hand.....	Male: (IL-III).
Panner, bun.....	(See Bun panner).....	Male: Molders. ³ Female: (MS).
Panner or molder.....	(See Molder).....	Male: Molders. ³ Female: (MS).
Paper peeler, cake.....	(See Peeler, cake).....	Male: General helpers. Female: (MS).
Pastry maker.....	(See Cake maker).....	Male: Cake makers. ³ Female: (MS).
Pastry maker's helper.....	(See Cake maker's helper).....	Male: Mixers' helpers. ³ Female: (MS).
Pastry mixer.....	(See Cake maker).....	Male: Cake makers. ³ Female: (MS).
Pastry mixer's helper.....	(See Cake maker's helper).....	Male: Mixers' helpers. ² Female: (MS).
Paymaster.....	Checks pay roll from each department, draws money, and distributes it to employees; may also do clerical cost work.	Male: Auditors, bookkeepers, etc. ¹
P. B. X. operator.....	(See Telephone operator).....	Female: Stenographers, typists, telephone operators, etc. ⁵ Male: Ovenmen.
Peel ovenman, rotary or stationary.....	Places pans of dough or batter in oven by means of "peel", and likewise removes baked products from oven, rotating when necessary oven platform by hand control.	Male: Ovenmen's helpers.
Peel ovenman's helper.....	Shoves racks of pans filled with dough or batter to oven, removes pans from racks and places them on "peel", and, after baking, dumps products from pans to table in preparation for cooling.	Male: Ovenmen's helpers.
Peeler, cakes.....	Removes by hand paper pan lining which adhered to cakes when dumped from oven pans.	Male: General helpers. Female: (MS).
Pie-filling mixer.....	Crushes or cooks fruit, prepares custard or milk pie filling, etc., and assists generally in pie making.	Male: (DL-I).
Pie maker, hand.....	Engaged in various skilled operations, usually in small handcraft bakery, pertaining to pie making, such as blending, mixing and dividing of pie dough, rolling pie crust, laying pie bottom, putting in filling, setting pie top, and crimping and trimming edges.	Male: (DL-I).
Pie maker, machine.....	Works as one of group of five persons, operating machine which by line conveyor or rotating table carries pie through five consecutive stages from rolling of bottom crust to completion of pie, except baking. First worker in line feeds piece of dough between two-way rollers, which squeeze it to correct thickness for bottom crust; second worker places this piece of thin dough in pie pan on moving carrier and may moisten the edge of this dough; third worker places the filling on dough in pan as it passes; fourth worker rolls a piece of dough to form the top crust, similar to that used for the bottom; and fifth worker places top on pie. Completed pie is then automatically crimped and trimmed around the edge and discharged from machine to conveyor.	Male: (DL-I). Female: (MS).

See footnotes at end of table.

Plant occupational term	Description of work performed	Classified by Bureau under—
Pie maker's helper, hand..	Keeps pie maker supplied with ingredients, assists in preparing and putting in filling, trims surplus dough around edges, and cleans and greases pans.	Male: Mixers' helpers. ² Female: (MS).
Pie maker's helper, machine.	May do any of jobs in pie making, under supervision. Usually washes, trims, racks, etc.	Male: General helpers. Female: (MS).
Pie washer	After top crust of pie has been sprayed automatically by machine with egg solution, uses hand brush to spread solution uniformly, punches several holes in top to provide for expansion, and places pies in rack for convenience of ovenman.	Male: General helpers.
Pipe fitter	(See Steam fitter)	Male: (MR-I).
Plumber	Repairs and makes replacements in plumbing equipment of plant.	Male: (MR-I).
Porter, cleaner	(See Cleaner, floors)	Male: (SE-III). Female: (MS).
Porter, material handler..	(See Laborer)	Male: Laborers.
Private secretary	Takes dictation, transcribes notes on typewriter, handles routine duties for executives, etc.	Female: Stenographers, typists, telephone operators, etc. ⁵
Proofer, cabinet	(See Cabinet man)	Male: (DL-II).
Proofer, steam-room	(See Steam-room proofer)	Male: (DL-I).
Proofer's helper	(See Steam-room proofer's helper)	Male: General helpers.
Puncher, dough	(See Dough puncher)	Male: Mixers' helpers. ²
Racker, bread	(See Bread racker)	Male: Ovenmen's helpers.
Packer, pans	(See Molder's helper)	Male: General helpers.
Raisin cleaner	Washes and sorts by hand raisins used in bread, cakes, or pies, eliminating imperfect ones, stems, and other foreign material.	Male: (DL-II). Female: (MS).
Receiving clerk	Receives incoming bakery stock, checks invoices, issues stock, and keeps inventory of stock on hand. In bakeries where no common labor is employed, he dumps flour into hopper or chute leading to blending machine, cleans empty sacks, and sweeps and cleans storeroom.	Male: (IL-I).
Reel ovenman	Places pans of dough in trays of revolving oven (resembling ferris wheel), and, after baking, removes pans from trays as they rotate to oven door.	Male: Ovenmen.
Relief machine hand	Operates any of various machines in bakery in absence of regular operator.	Male: (DL-I).
Relief machine hand's helper.	(See Mixer's helper, divider's or scaler's and rounder's helper, and molder's helper.)	Male: General helpers.
Relief man	(See Relief machine hand)	Male: (DL-I).
Repairer, belt man	(See Belt man, repairer)	Male: (MR-II).
Repairer, boxes	(See Box maker or repairer)	Male: (MR-II).
Repairer, crates	(See Box maker or repairer)	Male: (MR-II).
Repairer, general	(See Carpenter, machinist, steam fitter, etc.)	Male: (MR-I).
Roll dumper	Dumps baked rolls from pans either as they are removed by ovenman or as they are automatically delivered from back of traveling oven.	Male: Ovenmen's helpers.
Roll icer	(See Icing-machine tender)	Male: (DL-II). Female: (MS).
Roll maker	Feeds sheets of roll dough to machine, which automatically cuts them into pieces of proper size and rounds them; then places pieces in pans and racks pans, ready for proofing. In bakeries not equipped with machines, he cuts and rounds dough by hand.	Male: (DL-I).
Rounder	(See Divider or scaler and rounder)	Male: Dividers or scalers and rounders. ³
Rounder's helper	(See Divider's or scaler's and rounder's helper)	Male: General helpers.
Route boss	Lays out routes for driver-salesmen, checks service over various routes, and changes routes as necessity arises.	Male: (SU).
Route rider	(See Route boss)	Male: (SU).
Route salesman	(See Driver-salesman)	Male: Driver-salesmen.
Route supervisor	(See Route boss)	Male: (SU).
Rye bread baker	(See Bench hand or hand baker)	Male: Bench hands or hand bakers. Female: (MS).
Rye bread baker's helper ..	(See Bench hand's or hand baker's helper)	Male: Bench hands' or hand bakers' helpers. Female: (MS).
Sales girl	(See Clerk, store)	Female: Store clerks.
Salesman	(See Driver-salesman)	Male: Driver-salesmen.
Salesman's helper	(See Driver-salesman's helper)	Male: (IL-III).
Scaler, batter	(See Batter scaler)	Male: Cake makers. ³
Scaler, dough	(See Divider or scaler and rounder)	Male: Dividers or scalers and rounders. ³
Scaler, ingredient, cake	(See Ingredient scaler, cake)	Male: (DL-I).
Scaler's helper	(See Divider's or scaler's and rounder's helper)	Male: General helpers.
Scaler's helper, batter	(See Batter scaler's helper)	Male: General helpers.

See footnotes at end of table.

Plant occupational term	Description of work performed	Classified by Bureau under—
Scaler's helper, ingredient, cake.	(See Ingredient scaler's helper).....	Male: Mixers' helpers. ²
Scraper, pans.....	(See Pan cleaner, hand).....	Male: (IL-III).
Scrubber, floors.....	(See Cleaner, floors).....	Male: (SE-III). Female: (MS).
Shift foreman, working.....	(See Foreman, working).....	Male: (SU).
Shipper, clerk.....	Makes up orders, packs products in cases, bills shipments to out-of-town customers, supervises tagging and loading of shipment, and keeps records of shipments.	Male: Office clerks. ⁴
Shipper, supervisory.....	Supervises packing and shipping of product and keeping of necessary records.	Male: Auditors, bookkeepers, etc. ¹
Shipper's helper.....	(See Shipper, clerk).....	Male: Office clerks. ⁴
Sifter, flour.....	(See Flour sifter).....	Male: (DL-II).
Sign or display card painter	Paints signs or display cards for use in or about plant or on delivery equipment to advertise products.	Male: (IL-I).
Slicer, bread, automatic.....	(See Bread slicer, automatic).....	Male: Bread wrappers, automatic. Female: (MS).
Slicer, bread, hand.....	(See Bread slicer, hand).....	Male: (DL-III). Female: Bread wrappers, hand. ⁶
Solicitor.....	Canvasses possible customers for driver-salesmen.....	Male: (IL-I). Female: (MS).
Special-delivery driver.....	Delivers special orders after driver-salesmen have started on routes; also delivers bakery goods to driver-salesmen while they are on routes.	Male: (IL-II).
Sponger.....	Mixes flour, yeast, and water for an emulsion known as sponge, which is used in mixing dough. In most bakeries this is part of mixer's job.	Male: Mixers. ³
Stableman.....	Feeds and takes care of horses and has charge of stables.	Male: (MR-III).
Stale-bread man.....	Receives unsold bread from driver-salesmen, checks against stock taken out, and credits driver-salesman with amount of returned bread.	Male: (IL-II).
Stale-bread man's helper.....	Puts stale bread in place for future disposition.....	Male: General helpers.
Steam fitter.....	Cuts, fits, and joins steam pipes in connection with plant equipment and building maintenance.	Male: (MR-I).
Steam-room proofer.....	Regulates temperature of steam proofing room or box and determines when raised dough is ready to be delivered to baking ovens.	Male: (DL-I).
Steam-room proofer's helper.....	Assists steam-room proofer in placing dough racks in steam room and shoves loaded racks in or out.	Male: General helpers.
Stenographer.....	Takes dictation, transcribes notes on typewriter, and may assist in office work.	Female: Stenographers, typists, telephone operators, etc. ⁵
Stock clerk, material handling.....	Trucks stock into storage room or warehouse, issues materials on order, etc.	Male: (IL-III).
Stock clerk, office.....	Keeps inventory records of stocks and supplies and does other general office work, such as filing, typing, etc.	Male and female: Office clerks. ⁴
Stock handler, warehouse.....	(See Laborer).....	Male: Laborers. ¹
Store clerk.....	Sells products in stores directly connected with bakeries.	Male: (IL-II). Female: Store clerks.
Store salesman.....	(See Store clerk).....	Male: (IL-II).
Straw boss.....	(See Assistant foreman, working).....	Male: (SU).
Stripper, pie.....	(See Finisher, pie).....	Male: (DL-I).
Sugar grinder.....	Feeds and tends sugar-grinding machine.....	Male: (DL-II).
Sweeper.....	(See Cleaner, floors).....	Male: (SE-III). Female: (MS).
Taker off, conveyor.....	Removes loaves of bread from conveyors in wrapping room.	Male: General helpers.
Telephone operator.....	Operates switchboard; may also take orders for bakery products and do some clerical work.	Female: Stenographers, typists, telephone operators, etc. ⁵
Timekeeper.....	Makes up daily time records, compiles job charge slips for production clerks, prepares pay-roll sheets for cashier's department, and may deliver pay-roll checks to employees.	Male and female: Office clerks. ⁴
Tinsmith.....	Repairs bread and cake oven pans.....	Male: (MR-I).
Tinsmith's helper.....	Under supervision of tinsmith, repairs bread and cake oven pans.	Male: (MR-II).
Toaster.....	Feeds slices of bread to toasting machine and, after toasting, removes slices and wraps them in waxed paper.	Male: (DL-II).
Traveling-oven dumper.....	(See Dumper, traveling oven).....	Male: Ovenmen's helpers.
Traveling-oven feeder.....	(See Oven feeder).....	Male: Ovenmen's helpers.
Traveling-oven man.....	Places pans of dough on feed apron of traveling oven, regulates heat of oven, and controls speed of conveyors which carry dough through oven.	Male: Ovenmen.

See footnotes at end of table.

Plant occupational term	Description of work performed	Classified by Bureau under—
Trayman.....	Assists ovenmen by placing filled pans of dough on trays ready for baking.	Male: Ovenmen's helpers.
Trimmer, pies.....	Trims pie edges by hand, scalloping and perforating pie at same time.	Male: General helpers.
Truck driver.....	(See Driver, truck).....	Male: Chauffeurs and drivers. ¹
Truck loader.....	Assists driver-salesmen in loading their trucks with bakery products.	Male: (IL-III).
Trucker, hand.....	Conveys supplies, materials, or products from one room or department to another or from one section of a room or department to another.	Male: Laborers. ¹
Typist.....	Operates typewriter and may do some clerical work.	Female: Stenographers, typists, telephone operators, etc. ⁵
Unloader, supplies.....	(See Laborer).....	Male: Laborers. ¹
Utility man, semiskilled.....	Performs miscellaneous duties throughout bakery; may substitute for general workers.	Male: (MR-II).
Utility man, unskilled.....	(See Handyman, unskilled).....	Male: (MR-II).
Vienna bread baker.....	(See Bench hand or hand baker).....	Male: Bench hands or hand bakers. Female: (MS).
Vienna bread baker's helper.	(See Bench hand's or hand baker's helper).....	Male: Bench hands' or hand bakers' helpers. Female: (MS).
Watchman.....	Makes periodical rounds of plant and yard to protect plant from damage by fire, thieves, etc.; may also check employees and trucks in and out at gate.	Male: (SE-III).
Washer, pans.....	(See Pan washer).....	Male: (IL-III).
Water tender.....	Maintains proper water level in boiler.	Male: (IL-II).
Wax-paper liner.....	(See Pan liner).....	Male: (DL-II). Female: (MS).
Window trimmer.....	Arranges bakery products in attractive display for advertising purposes.	Male: (IL-I).
Working foreman.....	(See Foreman, working).....	Male: (SU).
Working foreman, assistant.	(See Assistant foreman, working).....	Male: (SU).
Wrapper, bread, automatic.	(See Bread wrapper, automatic).....	Male: Bread wrappers, automatic. Female: (MS).
Wrapper, bread, hand.....	(See Bread wrapper, hand).....	Male: (DL-III). Female: Bread wrappers, hand. ⁵
Wrapper, foreman, working.	Supervises work of wrappers and performs some actual work.	Male: (SU). Female: (MS).
Wrapper and packer, cake.	(See Cake wrapper and packer).....	Male and female: Cake wrapper and packers. ⁴
Wrapper's helper.....	Removes loaves of bread from back of wrapping machine and places them on truck to be sent to packing room.	Male: General helpers. Female: (MS).
Yard foreman.....	Supervises work done by yard hands or outside crew and regularly works with them.	Male: (SU).

¹ This applies to the North; in the South, it was classified as indirect labor, miscellaneous, skill not specified.

² This applies to the North; in the South, it was classified as DL-II.

³ This applies to the North; in the South, it was classified as DL-I.

⁴ This applies to the North; in the South, if male it was classified as indirect labor, miscellaneous, skill not specified, and if female it was classified as MS.

⁵ This applies to the North; in the South, it was classified as MS.

⁶ This applies to the North; in the South, it was classified as DL-III.

APPENDIX II
Detailed Statistical Tables

TABLE A.—Distribution of employees according to average hourly earnings by occupational classes, as to region and sex, for three selected periods

Region, sex, occupational class, and period	Number of employees	Average hourly earnings	Number of employees whose average hourly earnings were—																	
			Under 12.5 cents	12.5 and under 17.5 cents	17.5 and under 22.5 cents	22.5 and under 27.5 cents	27.5 and under 32.5 cents	32.5 and under 37.5 cents	37.5 and under 42.5 cents	42.5 and under 47.5 cents	47.5 and under 52.5 cents	52.5 and under 57.5 cents	57.5 and under 62.5 cents	62.5 and under 67.5 cents	67.5 and under 72.5 cents	72.5 and under 77.5 cents	77.5 and under 85.0 cents	85.0 cents and under \$1.00	\$1.00 and under \$1.20	\$1.20 and over
Total—United States:																				
Males:																				
March 1933.....	14,585	\$0.471	46	208	476	754	1,221	1,836	2,038	1,825	1,662	1,052	745	647	444	376	402	564	186	103
September 1933.....	16,609	.524	2	22	73	391	1,508	1,686	2,305	1,710	1,806	1,656	1,170	985	877	711	531	798	284	94
December 1934.....	18,348	.570	1	6	14	148	509	1,517	2,615	2,325	1,853	1,698	1,387	1,418	1,169	1,052	876	1,148	465	147
Females:																				
March 1933.....	1,895	.307	17	117	357	409	260	273	194	106	89	20	23	14	5	7	4	-----	-----	-----
September 1933.....	2,173	.354	-----	-----	28	208	924	391	228	151	113	54	30	19	6	7	5	7	1	-----
December 1934.....	2,614	.379	-----	-----	1	3	165	635	746	545	205	138	69	34	32	10	9	6	3	-----
Males and females:																				
March 1933.....	16,480	.455	63	325	833	1,163	1,481	2,109	2,232	1,931	1,751	1,072	768	661	449	383	406	564	186	103
September 1933.....	18,782	.507	2	23	101	599	2,432	2,077	2,533	1,861	1,919	1,710	1,200	1,004	883	718	536	805	285	94
December 1934.....	20,962	.549	1	7	17	313	1,144	2,263	3,160	2,530	1,991	1,767	1,421	1,450	1,179	1,061	882	1,161	468	147
Total—North:																				
Males:																				
March 1933.....	12,534	.491	16	86	280	506	901	1,531	1,780	1,620	1,551	971	683	597	425	358	385	556	185	103
September 1933.....	14,054	.540	-----	-----	9	39	213	1,007	1,266	1,938	1,453	1,602	1,480	1,067	873	823	669	482	766	272
December 1934.....	15,501	.590	1	2	6	35	293	784	2,171	1,983	1,594	1,501	1,291	1,284	1,062	990	827	1,092	450	135
Females:																				
March 1933.....	1,566	.321	3	65	243	349	214	256	182	98	87	18	21	14	5	7	4	-----	-----	-----
September 1933.....	1,771	.364	-----	-----	23	95	738	340	207	143	105	49	28	18	6	7	5	6	1	-----
December 1934.....	2,115	.392	-----	-----	1	41	450	631	517	184	125	65	33	27	10	9	6	12	3	-----
Males and females:																				
March 1933.....	14,100	.475	19	151	523	855	1,115	1,787	1,962	1,718	1,638	989	704	611	430	365	389	556	185	103
September 1933.....	15,825	.528	-----	-----	9	62	308	1,745	1,606	2,145	1,596	1,707	1,529	1,095	829	676	487	772	278	90
December 1934.....	17,616	.569	1	8	7	76	743	1,415	2,688	2,167	1,719	1,566	1,324	1,311	1,072	999	833	1,104	453	135
Total—South:																				
Males:																				
March 1933.....	2,051	.360	30	122	196	248	320	305	258	205	111	81	62	50	19	18	17	8	1	-----
September 1933.....	2,555	.436	2	13	34	178	501	420	367	257	204	176	103	107	54	42	49	32	12	4
December 1934.....	2,847	.462	-----	-----	4	8	113	216	733	444	342	259	197	96	134	107	49	56	15	12
Females:																				
March 1933.....	329	.240	14	52	114	60	46	17	12	8	2	2	2	-----	-----	-----	-----	-----	-----	-----
September 1933.....	402	.311	-----	-----	1	5	113	186	51	21	8	8	5	2	1	-----	-----	-----	-----	-----
December 1934.....	499	.325	-----	-----	2	124	185	115	28	21	13	4	1	5	-----	-----	-----	-----	-----	-----
Males and females:																				
March 1933.....	2,380	.346	44	174	310	308	366	322	270	213	113	83	64	50	19	18	17	8	1	-----
September 1933.....	2,957	.421	2	14	39	291	687	471	388	265	212	181	105	108	54	42	49	33	12	4
December 1934.....	3,346	.445	-----	-----	4	10	237	401	848	472	363	272	201	97	139	107	49	57	15	12

		Males—North																	
Direct labor:																			
Skilled:																			
Bench hands or hand bakers:																			
March 1933	581 .563	1	8	12	38	48	70	103	77	51	39	26	11	18	25	22	32		
September 1933	716 .601			22	20	63	43	76	108	104	73	79	34	27	29	24	17		
December 1934	807 .677			1	1	47	36	61	99	66	99	143	55	59	48	77	15		
Cake makers:																			
March 1933	384 .551	1	4	7	7	27	24	53	80	49	29	24	20	13	14	23	6	3	
September 1933	429 .598			1	9	21	17	34	51	77	52	40	28	42	25	24	7	1	
December 1934	494 .647					7	27	24	51	59	67	70	47	49	31	27			
Dividers or scalers and rounders:																			
March 1933	236 .543	1	6	10	18	23	31	41	24	13	18	7	7	11	8	12	6		
September 1933	263 .577			4	11	43	30	34	39	38	26	24	18	2	9	9	6		
December 1934	304 .654					20	20	41	29	27	40	39	31	17	20	13	7		
Mixers:																			
March 1933	374 .587		3	8	15	30	52	53	40	46	26	21	20	15	25	12	8		
September 1933	396 .656				5	14	28	46	45	63	37	39	28	28	27	12	13		
December 1934	429 .725					11	8	26	40	37	57	61	38	47	61	33	10		
Molders:																			
March 1933	258 .487	2	4	9	15	40	35	32	39	13	9	19	4	7	10	5	13	2	
September 1933	301 .534				14	23	35	36	30	50	27	14	14	10	10	5	13	2	
December 1934	341 .605				1	45	47	47	27	39	39	20	26	18	12	18	2		
Ovenmen:																			
March 1933	528 .599	1	5	8	12	22	38	63	85	46	47	31	40	25	18	38	26	23	
September 1933	596 .662				12	13	35	26	66	51	63	74	62	53	48	36	36	21	
December 1934	628 .738				1	21	22	35	57	62	49	70	74	65	85	52	35		
Miscellaneous, skilled:																			
March 1933	120 .501		3	2	8	19	19	31	6	12	9			3	5	1			
September 1933	115 .533				5	12	11	12	14	23	10	7	9	7	1	2			
December 1934	158 .601				1	13	19	23	25	16	16	13	12	7	6	7			
Total:																			
March 1933	2,481 .559	4	18	43	66	168	217	320	432	255	207	166	118	83	89	129	92	74	
September 1933	2,846 .609			1	66	105	236	209	317	393	354	271	255	203	141	132	103	60	
December 1934	3,161 .677				2	10	184	176	284	336	314	370	393	285	248	263	227	69	
Semiskilled:																			
Bench hands' or hand bakers' helpers:																			
March 1933	168 .413	1	2	6	4	15	35	35	27	18	10	2	4	1	2	5	1		
September 1933	221 .453				1	23	29	30	50	43	20	10	6	1	3	4	1		
December 1934	246 .501					7	5	62	48	39	20	22	22	3	5	1	2		
General helpers:																			
March 1933	379 .364	4	10	38	32	54	61	75	28	43	10	9	7		3	4	1		
September 1933	497 .419			4	6	108	81	109	52	48	54	13	5	7	1	3	3		
December 1934	608 .458			1	24	43	200	144	67	45	24	26	17	7	4	6			
Mixers' helpers:																			
March 1933	299 .388	5	7	33	47	65	50	28	19	15	12	12		3	3				
September 1933	351 .434	1	1	5	52	55	81	49	36	29	14	11	8	7	2				
December 1934	437 .484			4	9	18	175	113	54	52	28	12	6	14	8	4			

TABLE A.—Distribution of employees according to average hourly earnings by occupational classes, as to region and sex, for three selected periods—
Continued

Region, sex, occupational class, and period	Number of employees	Average hourly earnings	Number of employees whose average hourly earnings were—																	
			Under 12.5 cents	12.5 and under 17.5 cents	17.5 and under 22.5 cents	22.5 and under 27.5 cents	27.5 and under 32.5 cents	32.5 and under 37.5 cents	37.5 and under 42.5 cents	42.5 and under 47.5 cents	47.5 and under 52.5 cents	52.5 and under 57.5 cents	57.5 and under 62.5 cents	62.5 and under 67.5 cents	67.5 and under 72.5 cents	72.5 and under 77.5 cents	77.5 and under 85.0 cents	85.0 cents and under \$1.00	\$1.00 and under \$1.20	\$1.20 and over
<i>Males—North—Continued</i>																				
Direct labor—Continued.																				
Semiskilled—Continued.																				
Ovenmen's helpers:																				
March 1933	444	\$0.403		7	14	27	59	82	73	59	56	27	13	12	2	6	2	4	1	
September 1933	536	.449				7	63	78	120	68	73	65	21	9	10	11	3	7	1	
December 1934	617	.511				1	9	13	151	124	91	47	76	49	21	12	9	11	3	
Miscellaneous, semiskilled:																				
March 1933	127	.434				8	7	28	28	14	19	6	4	8	2	2	1			
September 1933	170	.458				7	14	26	33	18	20	28	10	3	3	5	1	1	1	
December 1934	198	.512						3	7	50	34	31	20	20	12	6	6	6	2	
Total:																				
March 1933	1,417	.394	5	24	65	104	182	271	261	156	155	68	40	43	5	13	6	12	5	2
September 1933	1,775	.439		5	26	260	269	373	237	220	196	68	34	29	27	7	17	6	6	
December 1934	2,106	.489		1	5	52	86	578	463	282	184	170	121	53	44	32	22	13	13	
Unskilled:																				
Bread packers:																				
March 1933	314	.404		2	18	19	53	44	53	43	42	13	8	15		3	1			
September 1933	415	.455				3	45	66	95	50	61	43	18	6	18	6	3	1		
December 1934	459	.495				1	11	50	101	81	50	57	32	34	16	13	12	1		
Bread wrappers, automatic:																				
March 1933	368	.350		10	23	37	108	66	48	44	10	7	4	4	1	6				
September 1933	506	.412			2	2	80	117	137	55	58	17	19	5	4	10				
December 1934	569	.457					22	80	134	156	62	55	18	18	9	3	11	1		
Cake wrappers and packers:																				
March 1933	92	.384		1	7	5	6	17	26	14	9	4	1	2						
September 1933	105	.425			1		21	21	16	8	12	12	7	6			1			
December 1934	145	.460					6	24	28	29	23	14	15	2			2	1		
Pan greasers:																				
March 1933	107	.333	1	6	7	16	19	17	21	6	10	4								
September 1933	129	.403			1	5	19	24	27	20	19	12	2							
December 1934	154	.461			1		6	15	29	47	19	18	9	5	5					
Miscellaneous, unskilled:																				
March 1933	110	.412	2	2	11	12	14	20	8	5	13	6	4	4		2	1	5	1	
September 1933	125	.452			4		41	15	13	10	5	14	8	1	3		5	5	1	
December 1934	158	.492				1	18	32	28	18	11	6	9	12	11	3	3	2	3	1

Total:																					
March 1933	991	.374	3	21	66	89	200	164	156	112	84	34	17	25	1	11	2	5	1	-----	
September 1933	1,280	.430			8	10	206	243	288	143	155	98	54	18	25	16	9	6	1	-----	
December 1934	1,485	.473			1	2	63	201	320	331	165	150	83	71	42	19	28	5	3	-----	
Indirect labor:																					
Driver salesmen:																					
March 1933	4,341	.492	1	9	58	159	214	460	732	720	516	359	213	123	213	107	153	285	13	6	
September 1933	4,410	.545		2	16	116	257	348	442	528	510	425	336	297	315	191	124	444	47	12	
December 1934	4,609	.601			8	31	327	446	411	452	469	472	406	361	353	269	523	67	14	-----	
Other:																					
Auditors, bookkeepers, etc.:																					
March 1933	127	.701					1	1	6	7	14	13	11	16	5	12	9	18	10	4	
September 1933	130	.762					1	1	3	2	8	12	7	18	11	13	14	21	14	5	
December 1934	141	.795							3	4	4	7	7	22	12	13	15	29	18	7	
Chauffeurs and drivers:																					
March 1933	173	.483		4	4	9	29	19	23	20	14	28	11	4	3	2	3				
September 1933	183	.525		2	3	10	20	17	6	11	34	41	18	10	5	4	2				
December 1934	228	.559			1	9	8	41	28	16	38	8	26	18	14	5	15	1			
Laborers:																					
March 1933	138	.366		3	2	7	10	74	20	12	8	2									
September 1933	185	.428		1	1	2	7	29	65	22	35	16	6	1							
December 1934	206	.454			1		4	15	67	62	18	22	7	4	5						
Maintenance and repair, skilled:																					
March 1933	422	.548		1	5	3	11	36	50	89	76	43	47	19	22	8	9	3			
September 1933	458	.618			1	1	5	15	26	71	63	53	71	62	46	28	11	5			
December 1934	479	.639				1	1	17	27	59	67	64	62	39	67	39	28	8	8		
Maintenance and repair, semi-skilled:																					
March 1933	349	.394		4	7	14	57	57	92	49	39	13	6	4		5	1	1			
September 1933	417	.459			3	23	41	118	71	72	46	23	5	5	7	1	2				
December 1934	437	.476			1	11	11	134	99	75	48	28	14	5	5	1	1				
Office clerks:																					
March 1933	331	.463		1	6	7	32	67	54	39	27	19	17	26	7	22	4	2	1		
September 1933	376	.502			1		18	46	72	60	48	34	29	14	13	25	9	6	1		
December 1934	397	.547			1		6	11	65	71	67	39	24	27	31	19	26	9	1		
Service, unskilled:																					
March 1933	413	.353	2	10	25	28	65	123	89	30	25	8	3	5							
September 1933	501	.407		2	3	19	57	65	195	67	54	20	7	7	4	1					
December 1934	578	.436		2	1	11	51	56	130	183	77	35	19	8		4	1				
Supervisory, skilled:																					
March 1933	704	.706			2		6	19	33	58	67	71	99	44	64	95	79	53	14		
September 1933	748	.759				1	5	9	18	26	54	55	87	65	104	121	104	87	12		
December 1934	814	.811					3	5	22	37	41	73	69	122	132	165	108	42			
Miscellaneous, skilled:																					
March 1933	164	.589			4	7	11	8	13	28	16	13	16	5	9	13	12	7	2		
September 1933	164	.640			7	7	4	6	6	12	20	12	20	11	13	19	19	7	1		
December 1934	165	.684					8	4	16	8	13	18	19	12	16	16	26	7	2		
Miscellaneous, semiskilled:																					
March 1933	205	.421	1	3	13	20	30	58	50	37	40	20	7	12	3	7	3		1		
September 1933	367	.465			2	5	43	53	68	43	40	51	12	16	14	15	4		1		
December 1934	413	.514				13	25	95	64	53	41	22	44	19	25	6	5	1			

TABLE A.—Distribution of employees according to average hourly earnings by occupational classes, as to region and sex, for three selected periods—
Continued

Region, sex, occupational class, and period	Number of employees	Average hourly earnings	Number of employees whose average hourly earnings were—																		
			Under 12.5 cents	12.5 and under 17.5 cents	17.5 and under 22.5 cents	22.5 and under 27.5 cents	27.5 and under 32.5 cents	32.5 and under 37.5 cents	37.5 and under 42.5 cents	42.5 and under 47.5 cents	47.5 and under 52.5 cents	52.5 and under 57.5 cents	57.5 and under 62.5 cents	62.5 and under 67.5 cents	67.5 and under 72.5 cents	72.5 and under 77.5 cents	77.5 and under 85.0 cents	85.0 cents and under \$1.00	\$1.00 and under \$1.20	\$1.20 and over	
<i>Males—North—Continued</i>																					
Indirect labor—Continued.																					
Other—Continued.																					
Miscellaneous, unskilled:																					
March 1933	178	\$.364	4	7	15	20	25	31	22	19	15	7	7	4	1		1				
September 1933	214	.407		3	1	20	50	32	31	15	23	18	10	1	4	3	1	2			
December 1934	282	.437	1		1	7	50	25	84	43	12	15	14	17	3	4	4	1	1		
Total:																					
March 1933	3,304	.512	7	28	73	111	239	468	415	312	363	255	206	240	88	144	135	125	74	21	
September 1933	3,743	.562		6	10	60	218	301	599	336	400	368	255	258	199	232	201	167	115	18	
December 1934	4,140	.596	1	2	4	20	145	160	643	602	411	362	252	316	213	289	250	279	140	51	
<i>Females—North</i>																					
Direct labor:																					
Unskilled:																					
Bread wrappers, hand:																					
March 1933	61	.272		5	17	12	11	8		7				1							
September 1933	51	.341					28	16	1	1	5										
December 1934	111	.350					37	58	7	3	2	4									
Cake finishers:																					
March 1933	170	.270		8	36	54	27	29	6	9	1										
September 1933	195	.325			2	18	115	30	6	17	2	2	1	2							
December 1934	262	.362				2	78	96	52	18	12	3	1								
Cake wrappers and packers:																					
March 1933	288	.263		15	74	109	36	38	12		1	3									
September 1933	401	.314			8	11	281	88	7	1	2	1	2								
December 1934	501	.359					145	204	126	18	4	1	1	1		1					
Total:																					
March 1933	519	.266		28	127	175	74	75	18	9	9	3		1							
September 1933	647	.319			10	29	424	134	14	19	9	3	3	2							
December 1934	874	.359				2	260	358	185	39	18	8	2	1		1					
Indirect labor:																					
Other:																					
Office clerks:																					
March 1933	253	.388		5	12	18	34	46	49	36	29	6	9	4	2	2	1				
September 1933	269	.431			2	6	21	53	64	38	37	21	15	5	2	1	1	3			

December 1934.....	277	.458				2	2	32	103	41	40	24	14	9	4	1	2	3		
Stenographers, typists, telephone operators, etc.:																				
March 1933.....	136	.418		2	3	6	10	17	27	35	23	3	4	3	1		2			
September 1933.....	153	.462					6	18	38	28	37	17	5	4	1		2			
December 1934.....	167	.486					1	11	36	35	38	21	9	8		1	2	1	1	
Store clerks:																				
March 1933.....	310	.317	2	12	32	64	58	59	59	11	11	1	1							
September 1933.....	300	.340			11	43	96	45	63	34	4	4								
December 1934.....	360	.349		1	1	33	120	103	53	36	11	2								
Miscellaneous:																				
March 1933.....	348	.315	1	18	69	86	38	59	29	7	15	5	7	6	2	5	1			
September 1933.....	397	.363				17	191	90	28	24	18	4	5	7	3	5	2			
December 1934.....	437	.412				4	67	127	140	33	18	10	8	9	4	6	2	7	1	2
Total:																				
March 1933.....	1,047	.348	3	37	116	174	140	181	164	89	78	15	21	13	5	7	4			
September 1933.....	1,124	.387			13	66	314	206	193	124	96	46	25	16	6	7	6	6	1	
December 1934.....	1,241	.413		1	1	39	190	273	332	145	107	57	31	26	10	8	6	12	3	
<i>Males—South</i>																				
Direct labor:																				
Skilled:																				
Bench hands or hand bakers:																				
March 1933.....	127	.344		4	11	19	29	16	15	16	4	5	2	6						
September 1933.....	155	.392			1	14	23	33	42	11	10	8	2	9	1	1				
December 1934.....	170	.460					1	34	41	35	21	13	5	9		3	1			
Overmen:																				
March 1933.....	122	.409		4	4	8	15	21	19	12	11	8	14		3	2			1	
September 1933.....	139	.495				4	7	11	25	19	16	21	10	14	5	5	2			
December 1934.....	146	.550						8	19	23	15	19	13	24	13	3	4	5		
Miscellaneous, skilled:																				
March 1933.....	241	.412		5	21	18	23	39	30	25	22	13	18	12	6	5	3		1	
September 1933.....	298	.484		1		11	37	35	32	37	35	32	17	27	13	9	9		1	
December 1934.....	316	.527				3	3	51	49	34	35	32	16	26	27	19	14	6		1
Total:																				
March 1933.....	490	.394		13	36	45	67	76	64	53	37	26	34	18	9	7	3		2	
September 1933.....	592	.463		1	1	29	67	79	99	67	61	61	29	50	19	15	11		1	
December 1934.....	632	.515				3	4	93	109	92	71	64	34	59	47	26	19	11		1
Semiskilled:																				
General helpers:																				
March 1933.....	75	.255	5	6	14	12	21	12	4	1										
September 1933.....	115	.329		1	2	15	46	25	13	9	1	1			1				1	
December 1934.....	116	.348			2	8	17	66	9	14										
Overmen's helpers:																				
March 1933.....	70	.278		10	14	13	12	5	3	3										
September 1933.....	143	.342		1	1	18	52	29	24	7	7	3			1					
December 1934.....	147	.386				6	15	53	34	23	6	7	2	1						
Miscellaneous, semiskilled:																				
March 1933.....	68	.251	2	7	20	13	13	6	1	6										
September 1933.....	100	.345		1	1	13	32	20	20	3	6	4								
December 1934.....	131	.387			1	3	12	54	30	11	11	8	1							

TABLE A.—Distribution of employees according to average hourly earnings by occupational classes, as to region and sex, for three selected periods—
Continued

Region, sex, occupational class, and period	Number of employees	Average hourly earnings	Number of employees whose average hourly earnings were—																	
			Under 12.5 cents	12.5 and under 17.5 cents	17.5 and under 22.5 cents	22.5 and under 27.5 cents	27.5 and under 32.5 cents	32.5 and under 37.5 cents	37.5 and under 42.5 cents	42.5 and under 47.5 cents	47.5 and under 52.5 cents	52.5 and under 57.5 cents	57.5 and under 62.5 cents	62.5 and under 67.5 cents	67.5 and under 72.5 cents	72.5 and under 77.5 cents	77.5 and under 85.0 cents	85.0 cents and under \$1.00	\$1.00 and under \$1.20	\$1.20 and over
<i>Males—South—Continued</i>																				
Direct labor—Continued.																				
Semiskilled—Continued.																				
Total:																				
March 1933	213	\$0.262	7	23	44	39	47	30	10	10	3							1		
September 1933	358	.339		3	4	46	130	74	57	19	14	8			2					
December 1934	394	.376			3	17	44	173	73	48	17	15	3	1						
Unskilled:																				
Bread wrappers, automatic:																				
March 1933	100	.262	1	13	17	22	24	13	6	4										
September 1933	143	.337		2	3	5	66	39	15	3	9			1						
December 1934	155	.376			1	6	14	68	32	22	6	6								
Miscellaneous, unskilled:																				
March 1933	99	.253	7	17	18	23	14	5	9	4			2							
September 1933	138	.339			5	21	59	19	17	6	5	4		1	1					
December 1934	161	.370				19	23	66	18	17	8	6		2	1	1				
Total:																				
March 1933	199	.258	8	30	35	45	38	18	15	8			2							
September 1933	281	.338		2	8	26	125	58	32	9	14	4		2	1					
December 1934	316	.373			1	25	37	134	50	39	14	12		2	1	1				
Indirect labor:																				
Driver-salesmen:																				
March 1933	671	.378	2	13	20	55	115	132	131	89	49	33	13	12	2	1		3	1	
September 1933	711	.475	1	2	8	24	47	108	118	110	75	63	59	26	20	12	15	10	9	4
December 1934	800	.477			1	17	61	137	131	122	97	69	37	34	31	16	20	11	6	10
Other:																				
March 1933	478	.369	13	43	61	64	53	49	38	45	22	22	13	20	8	10	14	3		
September 1933	613	.441	1	5	13	53	132	101	61	52	40	15	29	12	15	23	19	2		
December 1934	705	.473		4	3	51	70	196	81	41	60	37	22	38	28	20	10	34	9	1
<i>Females—South</i>																				
Direct labor:																				
Unskilled:																				
March 1933	92	.198	8	21	36	20	6						1							
September 1933	131	.295				25	104	2												
December 1934	196	.304				43	111	40	1	1										

Indirect labor:																			
Other:																			
Store clerks:																			
March 1933.....	83	.220	1	15	35	19	9	3	1										
September 1933.....	90	.274			4	56	24	3	2				1						
December 1934.....	102	.286				60	31	6	2	2			1						
Miscellaneous:																			
March 1933.....	154	.273	5	16	43	21	31	14	11	8	2	2	1						
September 1933.....	181	.342		1	1	32	58	46	19	8	4	2	2						
December 1934.....	201	.365			2	21	43	69	25	18	13	3	1	5				1	
Total:																			
March 1933.....	237	.255	6	31	78	40	40	17	12	8	2	2	1						
September 1933.....	271	.318		1	5	88	82	49	21	8	8	5	2					1	
December 1934.....	303	.337			2	81	74	75	27	20	13	4	1	5				1	

TABLE B.—Distribution of employees according to weekly hours by occupational classes, as to region and sex, for three selected periods

Region, sex, occupational class, and period	Number of employees	Average weekly hours	Number of employees whose weekly hours were—																
			Under 8 hours	8 and under 16 hours	16 and under 24 hours	24 and under 32 hours	32 and under 36 hours	36 and under 40 hours	40 and under 44 hours	44 and under 48 hours	48 and under 52 hours	52 and under 56 hours	56 and under 60 hours	60 and under 64 hours	64 and under 72 hours	72 hours and over			
Total—United States:																			
Males:																			
March 1933.....	14,585	51.1	63	380	233	286	180	194	372	636	4,246	3,726	883	2,378	714	294			
September 1933.....	16,609	46.7	114	365	222	305	255	333	1,534	5,875	3,238	1,703	364	1,647	440	214			
December 1934.....	18,348	44.3	198	357	285	416	479	1,175	6,936	1,433	2,855	1,464	503	1,682	369	196			
Females:																			
March 1933.....	1,895	42.8	22	82	68	108	45	104	175	276	732	214	33	23	12	1			
September 1933.....	2,173	39.7	23	96	61	135	72	176	581	562	447	20							
December 1934.....	2,614	37.5	45	86	80	192	206	361	1,202	95	343	2	2						
Males and females:																			
March 1933.....	16,480	50.2	85	462	301	394	225	298	547	912	4,978	3,940	916	2,401	726	295			
September 1933.....	18,782	45.9	137	461	283	440	327	509	2,115	6,437	3,685	1,723	364	1,647	440	214			
December 1934.....	20,962	43.5	243	443	365	608	685	1,536	8,138	1,528	3,198	1,466	505	1,682	369	196			
Total—North:																			
Males:																			
March 1933.....	12,534	50.7	59	318	195	263	171	175	338	593	3,835	3,166	767	1,931	535	188			
September 1933.....	14,054	46.5	96	318	189	266	222	308	1,286	4,900	2,874	1,465	265	1,397	352	121			
December 1934.....	15,501	44.1	172	311	238	355	419	1,083	5,678	1,245	2,581	1,235	360	1,435	289	100			
Females:																			
March 1933.....	1,566	42.8	19	59	62	79	39	88	158	253	614	132	31	19	12	1			
September 1933.....	1,771	39.6	21	78	43	117	59	165	475	440	353	20							
December 1934.....	2,115	37.4	36	67	62	157	178	341	947	70	254	1	2						

TABLE B.—Distribution of employees according to weekly hours by occupational classes, as to region and sex, for three selected periods—Con.

Region, sex, occupational class, and period	Number of employees	Average weekly hours	Number of employees whose weekly hours were—														
			Under 8 hours	8 and under 16 hours	16 and under 24 hours	24 and under 32 hours	32 and under 36 hours	36 and under 40 hours	40 and under 44 hours	44 and under 48 hours	48 and under 52 hours	52 and under 56 hours	56 and under 60 hours	60 and under 64 hours	64 and under 72 hours	72 hours and over	
Total—North—Continued.																	
Males and females:																	
March 1933.....	14,100	49.8	78	377	257	342	210	263	496	846	4,449	3,298	798	1,950	547	189	
September 1933.....	15,825	45.8	117	396	232	383	281	468	1,761	5,340	3,227	1,485	265	1,397	352	121	
December 1934.....	17,616	43.3	208	378	300	512	597	1,424	6,625	1,315	2,835	1,236	362	1,435	289	100	
Total—South:																	
Males:																	
March 1933.....	2,051	53.7	4	62	38	23	9	19	34	43	411	560	116	447	179	106	
September 1933.....	2,555	47.6	18	47	33	39	33	30	248	975	364	238	99	250	88	93	
December 1934.....	2,847	45.2	26	46	46	62	60	92	1,258	188	274	229	143	247	80	96	
Females:																	
March 1933.....	329	43.0	3	23	6	29	6	16	17	23	118	82	2	4			
September 1933.....	402	40.0	2	18	18	18	13	11	106	122	94						
December 1934.....	499	38.2	9	19	18	35	28	20	255	25	89	1					
Males and females:																	
March 1933.....	2,380	52.2	7	85	44	52	15	35	51	66	529	642	118	451	179	106	
September 1933.....	2,957	46.5	20	65	51	57	46	41	354	1,097	458	238	99	250	88	93	
December 1934.....	3,346	44.2	35	65	64	97	88	112	1,513	213	363	230	143	247	80	96	
Direct labor:																	
Skilled:																	
Bench hands or hand bakers:																	
March 1933.....	581	42.1	6	57	40	29	26	16	28	49	152	108	28	28	14		
September 1933.....	716	38.4	15	59	32	34	32	30	126	254	105	27	1	1			
December 1934.....	807	35.1	44	55	32	37	57	102	382	46	52						
Cake makers:																	
March 1933.....	384	47.5		13	10	16	7	9	22	20	139	93	18	27	10		
September 1933.....	429	42.9	3	18	9	4	5	10	74	189	82	33		2			
December 1934.....	494	40.5	1	14	6	12	16	56	237	72	66	11	3				
Dividers or scalers and rounders:																	
March 1933.....	236	48.6			5	9	7	3	15	15	98	54	12	9	6	3	
September 1933.....	293	43.0			2	12	14	8	65	141	44	7					
December 1934.....	304	39.1		2	10	7	11	45	204	16	8	1					
Mixers:																	
March 1933.....	374	49.9	1	4	2	4	10	12	16	23	145	99	18	27	7	6	
September 1933.....	396	43.9	5	2	2	3	8	8	59	208	83	14	3	1			
December 1934.....	429	39.8	3		6	7	25	53	278	21	35	1					

Molders:																
March 1933	258	48.6		4	3	8	13	6	8	22	104	47	16	16	9	2
September 1933	301	41.6	2	5	7	9	18	7	64	148	30	10	1			
December 1934	341	37.9	4	6	3	19	21	80	189	15	4					
Ovenmen:																
March 1933	528	47.8	3	8	13	29	22	7	19	37	189	120	25	39	13	4
September 1933	596	42.2	2	19	8	22	25	25	102	247	117	25	2	2		
December 1934	628	38.5	8	11	16	28	37	95	354	33	40	5	1			
Miscellaneous, skilled:																
March 1933	120	46.4		3	2	3	6	3	7	12	57	19	6		2	
September 1933	115	42.9		1	1	6	2	6	16	66	12	5				
December 1934	158	39.5		1	4	3	5	32	91	18	3	1				
Total, skilled:																
March 1933	2,481	46.8	10	89	75	98	91	56	115	178	884	540	123	146	61	15
September 1933	2,846	41.6	27	104	61	90	104	94	506	1,253	473	121	7	6		
December 1934	3,161	38.2	60	89	77	113	172	463	1,735	221	208	19	4			
Semiskilled:																
Bench hands' or hand bakers' helpers:																
March 1933	168	43.1	5	12	8	6	5	3	13	14	54	26	11	8	3	
September 1933	221	38.5	12	12	9	9	5	5	31	107	25	6				
December 1934	246	36.4	10	16	7	7	19	19	133	11	24					
General helpers:																
March 1933	379	45.2	7	23	14	21	10	14	17	22	109	65	46	16	7	8
September 1933	497	40.3	8	23	11	22	13	31	68	262	50	8	1			
December 1934	608	35.8	22	32	22	35	36	109	311	12	26	3				
Mixers' helpers:																
March 1933	299	45.8	2	16	9	15	7	10	14	24	96	60	17	21	7	1
September 1933	351	42.1	2	14	6	11	7	12	51	175	53	17	2	1		
December 1934	437	38.7	5	10	5	18	29	66	243	16	44	1				
Ovenmen's helpers:																
March 1933	444	44.8	2	26	22	25	13	15	22	43	140	62	30	29	10	5
September 1933	536	40.3	4	29	15	16	24	15	101	272	50	9	1			
December 1934	617	36.9	9	24	13	41	41	144	311	20	10	1	3			
Miscellaneous, semiskilled:																
March 1933	127	50.3		1	1	2	1		4	8	61	27	11	8	1	2
September 1933	170	43.2		2	4	2	3	3	21	102	28	5				
December 1934	198	39.5	1	5		6	9	5	137	27	6	1		1		
Total, semiskilled:																
March 1933	1,417	45.4	16	78	54	69	36	42	70	111	460	240	115	82	28	16
September 1933	1,775	40.7	26	80	45	60	52	66	272	918	206	45	4	1		
December 1934	2,106	37.1	47	87	47	107	134	343	1,135	86	110	6	3	1		
Unskilled:																
Bread packers:																
March 1933	314	47.7	4	20	3	3	2	4	2	21	120	100	13	18	3	1
September 1933	415	41.5	7	13	3	13	11	13	31	287	33	3	1			
December 1934	459	38.1	9	14	8	13	6	35	335	20	18	1				
Bread wrappers, automatic:																
March 1933	368	50.0	1	9	7	7		7	10	28	109	125	25	30	2	8
September 1933	506	42.0	4	16	11	9	7	8	59	344	35	10	2		1	
December 1934	569	38.2	3	16	12	23	24	59	400	14	11	5		1	1	

TABLE B.—Distribution of employees according to weekly hours by occupational classes, as to region and sex, for three selected periods—Con.

Region, sex, occupational class, and period	Number of employees	Average weekly hours	Number of employees whose weekly hours were—													
			Under 8 hours	8 and under 16 hours	16 and under 24 hours	24 and under 32 hours	32 and under 36 hours	36 and under 40 hours	40 and under 44 hours	44 and under 48 hours	48 and under 52 hours	52 and under 56 hours	56 and under 60 hours	60 and under 64 hours	64 and under 72 hours	72 hours and over
<i>Males—North—Continued</i>																
<i>Direct labor—Continued.</i>																
<i>Unskilled—Continued.</i>																
<i>Cake wrappers and packers:</i>																
March 1933.....	92	42.4	1	11	2	5	10	9	12	40	9	7	1			
September 1933.....	105	38.3	4	5	4	4	5	11	52	6	1		1			
December 1934.....	145	37.3	6	7	3	5	5	79	24	5						
<i>Pan greasers:</i>																
March 1933.....	107	49.1	1	5		1	2	3	4	7	34	27	6	12	2	3
September 1933.....	129	42.7	1	2	2	6	1	1	18	72	21	5				
December 1934.....	154	38.0	3	2	6	6	8	24	86	11	8					
<i>Miscellaneous, unskilled:</i>																
March 1933.....	110	45.3	3	2	8	7	2	3	7	2	31	33	2	8	1	1
September 1933.....	125	41.3	1	5	4	10	3	3	11	68	15	7	1			
December 1934.....	158	39.5	4	2	1	5	9	16	77	28	12	4				
<i>Total, unskilled:</i>																
March 1933.....	991	47.9	10	47	20	23	6	17	27	70	334	294	53	69	8	13
September 1933.....	1,280	41.8	17	41	24	42	29	34	128	823	110	26	4	1	1	
December 1934.....	1,485	38.2	25	41	30	52	52	145	977	97	54	10		1	1	
<i>Indirect labor:</i>																
<i>Driver salesmen:</i>																
March 1933.....	4,341	55.9	1	21	7	11	7	25	32	66	1,020	1,131	286	1,292	344	98
September 1933.....	4,410	55.2	2	13	12	15	2	33	43	119	1,215	1,060	225	1,240	320	111
December 1934.....	4,609	54.8	2	10	16	17	5	20	46	208	1,265	1,042	317	1,294	272	95
<i>Other:</i>																
<i>Auditors, bookkeepers, etc.:</i>																
March 1933.....	127	48.2		1	1				8	28	55	23	7	4		
September 1933.....	130	44.4				1		2	42	45	29	8	1	2		
December 1934.....	141	42.6					1	2	100	7	20	8		3		
<i>Chauffeurs and drivers:</i>																
March 1933.....	173	48.6		5	2	7	2	3	6	8	67	52	5	8	7	1
September 1933.....	183	46.6		1		1	9	16	2	36	87	22	3	3	3	
December 1934.....	228	44.1	3	4	3	4	2	4	60	20	113	13	1			1
<i>Laborers:</i>																
March 1933.....	138	45.3	5	9	3	6	1	2	2	9	42	49	1	7	1	1
September 1933.....	185	41.7		7	6	3	1	12	32	103	11	8		2		
December 1934.....	206	38.7	2	4	7	3	7	7	152	14	10					

Maintenance and repair, skilled:																			
March 1933.....	422	50.4		8	2	7	5		6	17	161	158	22	29	6				1
September 1933.....	458	44.2	1	7	7	5	3	4	18	285	123	9							
December 1934.....	479	44.2		4	2	2	3	1	116	160	159	14	11	1					
Maintenance and repair, semi-skilled:																			
March 1933.....	349	52.0	4	9	4	3	4	4	6	8	93	102	24	41	42				5
September 1933.....	417	42.6	2	11	10	9	6	7	26	251	85	5	1	3	1				
December 1934.....	437	42.4	3	9	9	15	7	10	84	150	145		1	4					
Office clerks:																			
March 1933.....	331	47.5	5	10	4	6	2	7	21	24	134	91	8	6	4				9
September 1933.....	376	42.8	5	7	5	5	1	9	78	177	72	14		1	2				
December 1934.....	397	39.0	4	12	9	6	3	8	301	29	24	1							
Service, unskilled:																			
March 1933.....	413	49.0	3	22	7	11	3	5	8	22	131	108	26	46	8				13
September 1933.....	501	41.8	7	25	10	12	4	3	29	331	55	14	4	3	3				1
December 1934.....	578	38.5	13	36	12	9	7	10	357	54	57	11	10	2					
Supervisory, skilled:																			
March 1933.....	704	53.5			2	4	2	1	4	12	250	226	39	137	15				12
September 1933.....	748	50.0		1	1	3	3		23	230	240	107	6	109	16				9
December 1934.....	814	48.3	1		1	1	1	9	233	71	253	94	9	118	14				4
Miscellaneous, skilled:																			
March 1933.....	164	51.5				3	2	2	5	12	56	40	15	27					2
September 1933.....	164	46.3		1	1	4	1	4	18	70	35	4	4	21	1				
December 1934.....	165	43.4		1	2	5	1	4	61	45	30	7		9					
Miscellaneous, semiskilled:																			
March 1933.....	305	47.8	2	11	11	9	9	8	20	10	74	84	33	23	10				1
September 1933.....	367	42.8	6	9	8	11	5	14	37	160	91	15	4	2	5				
December 1934.....	413	40.7	5	10	14	12	6	23	167	65	101	7	1		2				
Miscellaneous, unskilled:																			
March 1933.....	178	46.4	3	8	3	6	1	3	8	18	74	28	10	14	1				1
September 1933.....	214	41.7	3	11	4	5	2	5	32	99	42	7	1	3					
December 1934.....	282	39.2	6	4	4	9	18	34	154	18	27	3	3	2					
Total, other:																			
March 1933.....	3,304	50.0	22	83	39	62	31	35	94	168	1,137	961	190	342	94				46
September 1933.....	3,743	44.5	24	80	47	59	35	76	337	1,787	870	213	25	149	31				10
December 1934.....	4,140	42.5	38	84	68	66	56	112	1,785	633	944	158	36	139	16				5
<i>Females—North</i>																			
Direct labor:																			
Unskilled:																			
Bread wrappers, hand:																			
March 1933.....	61	43.0		3	6	3		3	3	3	27	11	1						1
September 1933.....	51	38.7		4	1	3		12	5	18	8								
December 1934.....	111	34.8	3	2	4	23	13	19	41	3	2		1						
Cake finishers:																			
March 1933.....	170	39.9	6	17	3	11	6	11	14	14	68	18		1	1				
September 1933.....	195	36.8	8	18	2	20	10	11	42	61	21	2							
December 1934.....	262	35.3	11	14	7	17	24	44	125	11	8	1							

TABLE B.—Distribution of employees according to weekly hours by occupational classes, as to region and sex, for three selected periods—Con.

Region, sex, occupational class, and period	Number of employees	Average weekly hours	Number of employees whose weekly hours were—												
			Under 8 hours	8 and under 16 hours	16 and under 24 hours	24 and under 32 hours	32 and under 36 hours	36 and under 40 hours	40 and under 44 hours	44 and under 48 hours	48 and under 52 hours	52 and under 56 hours	56 and under 60 hours	60 and under 64 hours	64 and under 72 hours	72 hours and over
<i>Females—North—Continued</i>															
Direct labor—Continued.															
Unskilled—Continued.															
Cake wrappers and packers:															
March 1933.....	288	41.6	4	9	17	32	16	17	22	52	73	30	6	5	5
September 1933.....	401	37.5	8	13	16	53	28	48	91	118	21	5			
December 1934.....	501	34.7	11	19	20	61	63	168	154	5					
Total, unskilled:															
March 1933.....	519	41.2	10	29	26	46	22	31	39	69	168	59	7	6	6
September 1933.....	647	37.4	16	35	19	76	38	71	138	197	50	7			
December 1934.....	874	34.9	25	35	31	101	100	231	320	19	10	1	1		
Indirect labor:															
Other:															
Office clerks:															
March 1933.....	253	44.3	1	5	2	2		29	33	65	97	14	4	1	
September 1933.....	269	41.0		4	2	3		40	133	50	34	3			
December 1934.....	277	38.6	4	3	4	7	1	39	210	3	6				
Stenographers, typists, telephone operators, etc.:															
March 1933.....	136	45.2	1	1	1			1	18	50	55	7	1	1	
September 1933.....	158	40.7		2	1	1		20	88	39	7				
December 1934.....	167	39.8			1			9	156	1					
Store clerks:															
March 1933.....	310	43.4	2	17	5	13	7	6	27	22	181	23	3	4	
September 1933.....	300	42.7	1	18	6	11	6	5	31	32	187	3			
December 1934.....	360	42.2	3	20	10	10	16	7	44	23	226		1		
Miscellaneous, other:															
March 1933.....	348	42.5	5	7	28	18	10	21	41	47	113	29	16	7	6
September 1933.....	397	39.5	4	19	15	26	15	29	85	122	75	7			
December 1934.....	437	36.8	4	9	16	39	61	55	217	24	12				
Total, other:															
March 1933.....	1,047	43.5	9	30	36	33	17	57	119	184	446	73	24	13	6
September 1933.....	1,124	40.9	5	43	24	41	21	94	337	243	303	13			
December 1934.....	1,241	39.2	11	32	31	56	78	110	627	51	244		1		

<i>Males—South</i>																
Direct labor:																
Skilled:																
Bench hands or hand bakers:																
March 1933	127	50.5		5	5		1	2	2	4	33	40	5	20	9	1
September 1933	155	44.6		3	2	4	4	2	18	65	44	3	1		6	3
December 1934	170	37.4	1	8	9	6	5	12	103	14	12					
Ovenmen:																
March 1933	122	53.1		1	2				3	3	38	41	5	19	9	1
September 1933	139	45.4				1	1	2	13	80	32	5	1	2	1	1
December 1934	146	40.8			2	2	8	4	99	11	14	6				
Miscellaneous, skilled:																
March 1933	241	52.9		4	1	5			5	7	75	75	7	37	20	5
September 1933	298	45.0			1	3	5	3	49	104	49	6	3	7	7	1
December 1934	316	41.2	1			3	6	14	231	25	30	1	1	4		
Total, skilled:																
March 1933	490	52.4		10	8	5	1	2	10	14	146	156	17	76	38	7
September 1933	592	45.0		3	3	8	10	7	80	309	125	14	5	9	14	5
December 1934	632	40.1	2	8	11	11	19	30	433	50	56	7	1	4		
Semiskilled:																
General helpers:																
March 1933	75	38.4		18	7	2		1	3	2	13	18		10	1	
September 1933	115	35.6	6	12	5	5	6	6	24	42	9					
December 1934	116	35.5	5	7	5	6	5	12	66	5	5					
Ovenmen's helpers:																
March 1933	70	49.8		2	3	2		2	4	3	13	23		14	4	
September 1933	143	41.9		7	4	4	3	1	32	80	13		1	1	1	
December 1934	147	38.2	2	1	1	10	8	11	108	4	4					
Miscellaneous, semiskilled:																
March 1933	68	48.8		7	1	3		1	1	1	20	13	2	11	6	2
September 1933	100	42.7		3	2	1		3	25	45	18		1	1	1	
December 1934	131	39.6	1	3	3	5	8	13	64	10	21	1	2			
Total, semiskilled:																
March 1933	213	45.5		27	11	7		4	8	6	46	54	2	35	11	2
September 1933	358	40.1	6	22	7	10	9	10	81	167	40	2	2	2	2	
December 1934	394	37.9	8	11	9	21	21	36	238	19	28	1	2			
Unskilled:																
Bread wrappers, automatic:																
March 1933	100	49.0		9	1	2	1	2	1		26	36	2	12	8	
September 1933	143	41.2	3	5	4	4	3	3	15	88	13	2		2	1	
December 1934	155	37.5	4	4	5	6	3	5	119	8	8					
Miscellaneous, unskilled:																
March 1933	99	44.9	2	6	11	2	2	3	7	2	25	17		12	8	2
September 1933	138	40.5	3	5	10	5	4	3	8	72	21	2	3		1	1
December 1934	161	38.2	1	9		10	7	12	101	5	14	1	1			
Total, unskilled:																
March 1933	199	47.0	2	15	12	4	3	5	8	2	51	53	2	24	16	2
September 1933	281	40.8	6	10	14	9	7	6	23	160	34	4	3	2	2	1
December 1934	316	37.9	5	13	5	16	10	17	220	13	14	2	1			
Indirect labor:																
Driver-salesmen:																
March 1933	671	60.2	1		1	2			4	6	36	146	84	216	87	88
September 1933	711	58.8	1	1	2	3	2	1	4	6	48	203	82	216	62	80

TABLE B.—Distribution of employees according to weekly hours by occupational classes, as to region and sex, for three selected periods—Con.

Region, sex, occupational class, and period	Number of employees	Average weekly hours	Number of employees whose weekly hours were—													
			Under 8 hours	8 and under 16 hours	16 and under 24 hours	24 and under 32 hours	32 and under 36 hours	36 and under 40 hours	40 and under 44 hours	44 and under 48 hours	48 and under 52 hours	52 and under 56 hours	56 and under 60 hours	60 and under 64 hours	64 and under 72 hours	72 hours and over
<i>Males—South—Continued</i>																
Indirect labor—Continued.																
Driver-salesmen—Continued.																
December 1934.....	800	59.0			2	1		1	17	12	56	193	127	219	79	93
Other:																
March 1933.....	478	52.2	1	10	6	5	5	8	4	15	132	151	11	96	27	7
September 1933.....	613	44.5	5	11	7	9	5	6	60	333	117	17	7	21	8	7
December 1934.....	705	41.7	11	14	20	12	10	8	350	94	120	26	12	24	1	3
<i>Females—South</i>																
Direct labor:																
Unskilled:																
March 1933.....	92	41.0	1	7	4	13	3	3	6	10	18	26		1		
September 1933.....	131	38.3	1	7	9	5	6	8	29	59	7					
December 1934.....	196	36.3	4	7	7	20	25	15	97	16	5					
Indirect labor:																
Other:																
Store clerks:																
March 1933.....	83	43.0	2	7		4		2	4	3	48	12		1		
September 1933.....	90	42.3	1	5	4	4	3		4	5	64					
December 1934.....	102	41.9	3	6	3	2	1		16	3	67	1				
Miscellaneous:																
March 1933.....	154	44.3		9	2	12	3	11	7	10	52	44	2	2		
September, 1933.....	181	40.1		6	5	9	4	3	73	58	23					
December 1934.....	201	38.0	2	6	8	13	2	5	142	6	17					
Total, other:																
March 1933.....	237	43.8	2	16	2	16	3	13	11	13	100	56	2	3		
September 1933.....	271	40.8	1	11	9	13	7	3	77	63	87					
December 1934.....	303	39.3	5	12	11	15	3	5	158	9	84	1				

TABLE C.—Distribution of employees according to weekly earnings by occupational classes, as to region and sex, for three selected periods

Region, sex, occupational class, and period	Number of employees	Average weekly earnings	Number of employees whose weekly earnings were—													
			Under \$4	\$4 and under \$8	\$8 and under \$12	\$12 and under \$16	\$16 and under \$20	\$20 and under \$24	\$24 and under \$28	\$28 and under \$32	\$32 and under \$36	\$36 and under \$40	\$40 and under \$44	\$44 and under \$48	\$48 and under \$56	\$56 and over
Total—United States:																
Males:																
March 1933.....	14,585	\$24.10	264	392	606	1,437	1,856	2,700	2,676	1,869	1,205	493	692	217	144	34
September 1933.....	16,609	24.45	227	359	346	2,261	2,675	2,631	2,634	1,791	1,535	776	764	333	224	53
December 1934.....	18,348	25.24	235	382	430	1,823	3,202	2,943	2,569	2,121	1,717	1,236	896	390	289	110
Females:																
March 1933.....	1,895	13.15	114	216	497	477	312	196	55	17	5	5	1			
September 1933.....	2,173	14.04	87	115	303	1,080	314	195	52	10	11	4	1	1		
December 1934.....	2,614	14.23	101	116	384	1,186	512	215	67	11	12	6	3	1		
Males and females:																
March 1933.....	16,480	22.84	378	608	1,103	1,914	2,168	2,896	2,731	1,886	1,210	498	693	217	144	34
September 1933.....	18,782	23.24	314	474	649	3,341	2,989	2,826	2,686	1,801	1,546	780	765	334	224	53
December 1934.....	20,962	23.86	336	498	814	3,014	3,714	3,158	2,636	2,132	1,729	1,242	899	391	289	110
Total—North:																
Males:																
March 1933.....	12,534	24.88	197	286	427	1,074	1,513	2,279	2,400	1,732	1,123	453	664	209	143	34
September 1933.....	14,054	25.12	170	304	259	1,528	2,251	2,248	2,329	1,595	1,410	687	714	313	204	42
December 1934.....	15,501	26.03	186	312	284	1,141	2,658	2,488	2,235	1,923	1,563	1,138	848	366	264	95
Females:																
March 1933.....	1,566	13.75	84	141	383	411	289	182	49	16	5	5	1			
September 1933.....	1,771	14.40	73	79	249	828	289	179	43	10	10	4	1	1		
December 1934.....	2,115	14.66	79	80	279	914	474	197	60	11	11	6	3	1		
Males and females:																
March 1933.....	14,100	23.65	281	427	810	1,485	1,802	2,461	2,449	1,748	1,128	458	665	209	143	34
September 1933.....	15,825	23.92	243	383	508	2,356	2,540	2,427	2,377	1,605	1,420	691	715	314	204	42
December 1934.....	17,616	24.66	265	392	563	2,055	3,132	2,685	2,295	1,934	1,574	1,144	851	367	264	95
Total—South:																
Males:																
March 1933.....	2,051	19.29	67	106	179	363	343	421	276	137	82	40	28	8	1	
September 1933.....	2,555	20.74	57	55	87	733	424	383	305	196	125	89	50	20	20	11
December 1934.....	2,847	20.92	49	70	146	687	544	455	334	198	154	98	48	24	25	15
Females:																
March 1933.....	329	10.32	30	75	114	66	23	14	6	1						
September 1933.....	402	12.44	14	36	54	252	25	16	4		1					
December 1934.....	499	12.38	22	36	105	272	38	18	7		1					
Males and females:																
March 1933.....	2,380	18.05	97	181	293	429	366	435	282	138	82	40	28	8	1	
September 1933.....	2,957	19.61	71	91	141	985	449	399	309	196	126	89	50	20	20	11
December 1934.....	3,346	19.64	71	106	251	959	582	473	341	198	155	98	48	24	25	15

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APPENDIX II

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TABLE C.—Distribution of employees according to weekly earnings by occupational classes, as to region and sex, for three selected periods—Con.

Region, sex, occupational class, and period	Number of employees	Average weekly earnings	Number of employees whose weekly earnings were—													
			Under \$4	\$4 and under \$8	\$8 and under \$12	\$12 and under \$16	\$16 and under \$20	\$20 and under \$24	\$24 and under \$28	\$28 and under \$32	\$32 and under \$36	\$36 and under \$40	\$40 and under \$44	\$44 and under \$48	\$48 and under \$56	\$56 and over
<i>Males—North</i>																
Direct labor:																
Skilled:																
Bench hands or hand bakers:																
March 1933.....	581	\$23.69	6	50	16	32	44	101	137	113	48	11	16	3	4	
September 1933.....	716	23.07	3	68	25	46	63	129	170	118	53	11	20	8	2	
December 1934.....	807	23.77	11	59	28	25	93	130	191	163	54	25	10	15	3	
Cake makers:																
March 1933.....	384	26.19		13	17	19	34	58	95	51	44	23	15	7	6	2
September 1933.....	429	25.64	3	15	8	19	42	74	109	68	46	18	16	10	1	
December 1934.....	494	26.23	3	10	10	16	48	81	135	90	45	29	16	7	4	
Dividers or scalers and rounders:																
March 1933.....	236	26.39			4	10	30	41	61	41	26	9	9	3	2	
September 1933.....	293	24.78		1	2	18	59	54	71	45	23	10	8	2	2	
December 1934.....	304	25.53		1	3	9	50	59	74	65	22	12	2	5	2	
Mixers:																
March 1933.....	374	29.28		4	3		22	53	78	79	50	23	32	10	6	3
September 1933.....	396	28.80		3	4		34	55	109	71	52	34	17	8	6	3
December 1934.....	429	28.83		1	2	6	25	59	123	78	70	36	14	8	7	
Molders:																
March 1933.....	258	23.59	1	3	7	18	48	69	45	34	19	6	3	2	3	
September 1933.....	301	22.25	2	8	3	38	68	70	52	30	17	4	5	3	1	
December 1934.....	341	22.91	2	8	2	26	90	67	67	46	17	7	2	5	2	
Ovenmen:																
March 1933.....	528	28.59	3	5	13	18	33	63	116	95	91	34	22	21	13	1
September 1933.....	596	27.93	4	12	8	27	45	79	113	135	76	37	31	19	10	
December 1934.....	628	28.41		13	6	14	51	78	129	135	89	59	33	15	6	
Miscellaneous, skilled:																
March 1933.....	120	23.25		5	4	10	16	34	24	13	6	2	1	4	1	
September 1933.....	115	22.89		1	1	11	25	26	26	17	5	2	1			
December 1934.....	158	23.75		1	2	5	34	44	32	23	3		1			
Total:																
March 1933.....	2,481	26.19	10	80	64	118	227	419	556	426	284	108	98	50	35	6
September 1933.....	2,846	25.35	12	108	51	159	336	487	650	484	272	116	96	50	20	3
December 1934.....	3,161	25.84	16	93	53	101	391	518	751	600	309	171	78	56	24	
Semiskilled:																
Bench hands' or hand-bakers' helpers:																
March 1933.....	168	17.78	9	12	12	18	35	59	12	7	2	2				
September 1933.....	221	17.46	16	12	8	41	56	54	19	13						
December 1934.....	246	18.24	12	15	2	30	86	51	38	12						

TABLE C.—Distribution of employees according to weekly earnings by occupational classes, as to region and sex, for three selected periods—Con.

Region, sex, occupational class, and period	Number of employees	Average weekly earnings	Number of employees whose weekly earnings were—													
			Under \$4	\$4 and under \$8	\$8 and under \$12	\$12 and under \$16	\$16 and under \$20	\$20 and under \$24	\$24 and under \$28	\$28 and under \$32	\$32 and under \$36	\$36 and under \$40	\$40 and under \$44	\$44 and under \$48	\$48 and under \$56	\$56 and over
<i>Males—North—Continued</i>																
Indirect labor—Continued.																
Other:																
Auditors, bookkeepers, etc.:																
March 1933.....	127	\$33.77	1	-----	1	1	3	10	19	26	12	17	13	13	9	2
September 1933.....	130	33.86	-----	-----	1	2	4	10	19	25	13	21	12	11	10	2
December 1934.....	141	33.83	-----	-----	-----	-----	5	12	23	21	25	16	18	8	9	3
Chauffeurs and drivers:																
March 1933.....	173	23.48	5	1	5	19	20	35	33	33	14	3	5	-----	-----	-----
September 1933.....	183	24.47	1	-----	1	20	32	36	24	41	16	8	4	-----	-----	-----
December 1934.....	228	24.62	6	2	6	12	46	27	46	34	24	19	5	1	-----	-----
Laborers:																
March 1933.....	138	16.59	13	5	10	10	60	26	13	1	-----	-----	-----	-----	-----	-----
September 1933.....	185	17.84	4	5	6	27	89	38	14	2	-----	-----	-----	-----	-----	-----
December 1934.....	206	17.56	4	7	6	28	103	43	10	5	-----	-----	-----	-----	-----	-----
Maintenance and repair, skilled:																
March 1933.....	422	27.65	-----	7	5	9	15	58	102	125	64	25	7	2	3	-----
September 1933.....	458	27.33	1	5	1	8	22	80	121	120	67	23	5	2	3	-----
December 1934.....	479	28.22	2	2	6	3	28	70	118	115	78	30	18	5	4	-----
Maintenance and repair, semi-skilled:																
March 1933.....	349	20.48	10	3	11	32	69	123	70	26	2	2	1	-----	-----	-----
September 1933.....	417	19.59	11	5	10	51	128	130	63	12	4	3	-----	1	1	-----
December 1934.....	437	20.20	7	10	10	32	135	140	73	23	4	2	1	-----	-----	-----
Office clerks:																
March 1933.....	331	22.02	9	7	7	35	63	69	57	38	36	3	4	-----	-----	-----
September 1933.....	376	21.47	6	9	5	51	92	84	61	30	30	5	3	-----	-----	-----
December 1934.....	397	21.32	8	13	9	20	114	99	69	26	30	5	4	-----	-----	-----
Service, unskilled:																
March 1933.....	413	17.28	18	20	26	75	128	89	45	8	3	1	-----	-----	-----	-----
September 1933.....	501	17.04	18	19	20	101	213	92	29	5	4	-----	-----	-----	-----	-----
December 1934.....	578	16.80	34	22	12	115	224	132	30	6	3	-----	-----	-----	-----	-----
Supervisory, skilled:																
March 1933.....	704	37.74	-----	-----	-----	3	6	23	58	103	115	89	128	93	65	22
September 1933.....	748	37.91	-----	-----	-----	1	6	27	71	69	156	96	136	86	83	17
December 1934.....	814	39.15	-----	1	-----	-----	1	17	48	83	184	122	137	87	96	38

Miscellaneous, skilled:															
March 1933	164	30.32				5	14	21	25	39	17	14	11	7	11
September 1933	164	29.64		2	1	3	15	20	34	26	23	14	12	6	8
December 1934	165	29.67	1			7	12	27	31	21	30	14	7	9	5
Miscellaneous, semiskilled:															
March 1933	305	20.14	13	6	27	48	45	61	56	23	20	4	1		1
September 1933	367	19.91	12	8	9	83	73	70	63	26	18	4			1
December 1934	413	20.95	7	12	12	48	117	78	77	23	31	3	4		1
Miscellaneous, unskilled:															
March 1933	178	16.89	10	14	22	29	40	31	16	12	4				
September 1933	214	16.98	12	9	16	66	47	25	26	8	4				
December 1934	282	17.10	7	6	14	101	79	33	28	9	4		1		
Total:															
March 1933	3,304	25.60	79	66	114	266	463	546	494	434	287	158	170	114	89
September 1933	3,743	25.02	65	62	70	413	719	612	525	364	335	174	173	106	106
December 1934	4,140	25.30	76	75	75	367	864	678	553	366	413	211	195	110	114
<i>Females—North</i>															
Direct labor:															
Unskilled:															
Bread wrappers, hand:															
March 1933	61	11.72	2	14	18	10	12	5							
September 1933	51	13.20	4	1	7	33	1	5							
December 1934	111	12.21	4	5	35	55	11	1							
Cake finishers:															
March 1933	170	10.76	22	12	68	40	23	5							
September 1933	195	11.94	20	10	44	100	10	9	2						
December 1934	262	12.79	20	10	40	147	40	5							
Cake wrappers and packers:															
March 1933	288	10.92	16	49	121	69	27	3	2	1					
September 1933	401	11.79	15	25	115	225	16	3	2						
December 1934	501	12.47	20	31	107	281	58	2	1	1					
Total:															
March 1933	519	10.96	40	75	207	119	62	13	2	1					
September 1933	647	11.95	39	36	166	358	27	17	4						
December 1934	874	12.53	44	46	182	483	109	8	1	1					
Indirect labor:															
Other:															
Office clerks:															
March 1933	253	17.18	4	6	18	73	70	58	17	4		3			
September 1933	269	17.69	2	4	6	94	79	59	19	3		3			
December 1934	277	17.68	5	3	10	59	113	60	19	3	2	3			
Stenographers, typists, telephone operators, etc.:															
March 1933	136	18.90		2	8	19	42	50	10	4			1		
September 1933	158	18.80	1	2	1	32	58	48	10	2	3		1		
December 1934	167	19.37		1		18	72	57	13	2	3		1		
Store clerks:															
March 1933	310	13.75	18	23	51	102	76	32	7	1					
September 1933	300	14.49	16	10	37	125	72	35	5						
December 1934	360	14.71	19	14	34	150	92	43	8						

TABLE C.—Distribution of employees according to weekly earnings by occupational classes, as to region and sex, for three selected periods—Con.

Region, sex, occupational class, and period	Number of employees	Average weekly earnings	Number of employees whose weekly earnings were—												
			Under \$4	\$4 and under \$8	\$8 and under \$12	\$12 and under \$16	\$16 and under \$20	\$20 and under \$24	\$24 and under \$28	\$28 and under \$32	\$32 and under \$36	\$36 and under \$40	\$40 and under \$44	\$44 and under \$48	\$48 and under \$56	$56 and over
<i>Females—North—Continued</i>															
Indirect labor—Continued.															
Other—Continued.															
Miscellaneous:															
March 1933.....	348	\$13.39	22	35	99	98	39	29	13	6	5	2			
September 1933.....	397	14.34	15	27	39	219	53	20	10	5	7	1			
December 1934.....	437	15.17	11	16	53	204	88	29	19	5	6	3	2	1	
Total:															
March 1933.....	1,047	15.13	44	66	176	292	227	169	47	15	5	5	1		
September 1933.....	1,124	15.81	34	43	83	470	262	162	44	10	10	4	1		
December 1934.....	1,241	16.16	35	34	97	431	365	189	59	10	11	6	3	1	
<i>Males—South</i>															
Direct labor:															
Skilled:															
Bench hands or hand bakers:															
March 1933.....	127	17.39	3	7	9	35	31	18	15	5	3	1			
September 1933.....	155	17.51	3	2	6	45	56	22	13	6	2				
December 1934.....	170	17.19	5	9	6	44	57	22	20	6	1				
Ovenmen:															
March 1933.....	127	17.39	3	7	9	35	31	18	15	5	3	1			
September 1933.....	139	22.49				16	37	29	29	16	5	7			
December 1934.....	146	22.46		1	1	14	36	37	31	10	9	7			
Miscellaneous, skilled:															
March 1933.....	241	21.80	1	6	11	35	48	43	43	25	18	6	4	1	
September 1933.....	298	21.82		2	4	62	67	47	58	27	16	9	5	1	
December 1934.....	316	21.68		1	4	64	76	60	51	27	22	5	5		1
Total:															
March 1933.....	490	20.64	5	14	26	80	111	85	85	44	26	8	5	1	
September 1933.....	592	21.26	3	4	10	123	160	98	100	49	23	16	5	1	
December 1934.....	632	20.65	5	11	11	122	169	119	102	43	32	12	5		1
Semiskilled:															
General helpers:															
March 1933.....	75	9.80	17	14	16	15	10	1	2						
September 1933.....	115	11.71	15	11	13	59	14	1	1	1					
December 1934.....	116	12.37	9	7	19	63	17	1							
Ovenmen's helpers:															
March 1933.....	70	13.85	3	5	17	19	15	9	2						
September 1933.....	143	14.34	4	3	12	80	33	8	2	1					
December 1934.....	147	14.75	2	2	26	63	41	11	2						
Miscellaneous, semiskilled:															
March 1933.....	68	12.26	6	7	15	22	10	7	1						

