# SECTION XXXIII. <br> LABOUR AND INDUSTRIAL. STATISTICS. 

## § I. Introductory.

1. General.-In Year Book No. 7 (pages 992-3), a resumé was given of the functions and scope of the Labour and Industrial Branch of the Commonwealth Bureau of Census and Statistics. Owing to considerations of space, that information is not repeated in the present issue of the Year Book.

## § 2. Fluctuations in Employment and Unemployment.

1. General.-In Australia, but few of the trade unions pay any form of unemployment benefit, and consequently accurate and complete records of unemployment are difficult to obtain. For that reason the investigation for past years was advisedly limited' to a record of the numbers unemployed at the end of each year. The results are, therefore, subject to certain limitations, inasmuch as they do not take into account variations in employment and unemployment throughout the year due to seasonal activity and other causes.
.For the above reasons it is not safe to conclude that the actual percentage returned as unemployed in past years by trade unions at the end of each year is equal to the average percentage unemployed during the year. Nevertheless, for the purpose of making comparisons and shewing tendencies over a period of years, the percentages returned as unemployed, though not exact, are the most satisfactory figures available, and the average percentages and index-numbers computed for the several States and groups of unions may be taken as denoting the true course of events with substantial accuracy.

It may be mentioned that, in order to overcome the difficulties alluded to in regard to seasonal fluctuations, returns as to numbers unemployed have been collected from trade unions for each quarter since the beginning of the year 1913.
2. Number Unemployed in Various Industries, 1891 to 1916.-The following table shews for each of the years specified :-
(a) The number of unions for which returns as to unemployment are available.
(b) The number of members of such unions.
(c) The number of members unemployed, and
(d) The percentage of members unemployed on the total number of members of those unions for which returns are available.

The information given in this table obviously does not furnish a complete register of unemployment. In the first place, with the exception of the years 1913 to 1916 it relates only to the number unemployed at the end of the year (see preceding paragraph hereof), and, secondly, it does not cover more than a part of the industrial field. And attention should here be drawn to the fact that the value of the comparisons which can be made is, to some extent, vitiated by the fact that returns are not available for the same unions throughout. For most of the important industries, returns have been available for a considerable number of unions and members since 1912. It is not unlikely, however, that particulars of unemployment are, on the whole, more generally available for those trades in which liability to unemployment is above the average
of skilled occupations. Thus the building and engineering industries are heavily represented in the returns, while such comparatively stable industries as railway service are hardly represented at all.' On the other hand, unskilled casual labour cannot, in the nature of the case, be well represented in the returns, which relate mainly to skilled workmen.

Thus, for some reasons, the percentage given is likely to be greater, and for other reasons less, than the true average percentage unemployed throughout the country.

## UNEMPLOYMENT.-NUMBER OF UNIONS AND MEMBERS REPORTING AND NUMBER and Percentage unemployed, 1891 to 1916 (4th QUARTER).



* For years prior to 1913 the figures refer to the end of the year only, and not to geparate quarters. The quarterly figures shew the number of persons who were out of work for three days or more during a specified week in each quarter; they do not include persons out of work through strikes or lockonts.

The figures shew that the percentage of unemployment was higher in the fourth than in the third quarter of the current year, but slightly lower than in the corresponding quarter of last year.
3. Unemployment in Difierent Industries, 1916.-The following table shews the percentages unemployed in several of the fourteen industrial groups. It may be observed that for those industries in which unemployment is either unusually stable or, on the other hand, exceptionally casual, information as to unemployment cannot ordinarily be obtained from trade unions. Hence, certain industries such as railways, shipping.
agricultural, pastoral, etc., and domestic, hotels, etc., are insufficiently represented in the returns. Particulars are not, therefore, shewn separately for these groups, such returns as are available being included in the last group, "Other and Miscellaneous."

UNEMPLOYMENT IN DIFFERENT INDUSTRIES AT THE END GF YEAR 1916.

| Inclustrial Group. | Number Reporting. |  | Unemployed. |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Unions. | Members. | Number. | Percentage. |
| I. Wood, Furniture, etc. ... | 20 | 13,711 | 581 | 4.2 |
| II. Engineering, Metal Works, etc. | 56 | 43,117 | 3,119 | 7.2 |
| III. Food, Drink, Tobacco, etc. ... | 61 | 24,702 | 1,876 | 7.6 |
| IV. Clothing, Hats, Boots, etc. ... | 25 | 25,925 | 747 | 2.9 |
| V. Books, Printing, etc. .. ... | 25 | 9,601 | 288 | 3.0 |
| VI. Other Manufacturing... ... | 77 | 30,701 | 1,971 | 6.4 |
| VII. Building | 57 | 33,696 | 3,568 | 10.6 |
| VIII. Mining, Quarrying, etc. | 25 | 30,642 | 1,560 | 5.1 |
| X. Other Land Transport | 12 | 9,837 | 285 | 2.9 |
| IX., XI., XII., XIII. and XIV., |  |  |  |  |
| Other and Miscellaneous ... | 112 | 70,119 | 5,567 | 7.9 |
| All Groups ... ... | 470 | 292,051 | 19,562 | 6.7 |

From the above figures it may be seen that the degree of unemployment varies considerably in different industries, ranging from 2.9 per cent. in Group IV. (Food, Drink, Tobacco, etc.) to 10.6 per cent. in Group VII. (Building).
4. Unemployment in each State, 1916. -Any deductions which can be drawn from the data collected as to the relative degree of unemployment in the several States are subject to certain qualifications (in addition to those already stated on page 1050), inasmuch as the industries included in the trade union returns are not uniform for each State. In comparing the results for the individual States, it must therefore be borne in mind that, to some extent, at least, comparisons are being drawn between different industries and not only between different States. Nevertheless, since the industrial occupations of the people vary considerably in the several States, all comparisons between the States based on comprehensive data as to unemployment must, to some extent, suffer from the defect indicated.
unemployment in different states at the end of year 1916.

| State. |  |  | Number Reporting. |  | Unemployed. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Unions. | Members. | Number. | Percentage. |
| New South Wales |  | $\cdots$ | 139 | 135,436 | 7,707 | 5.7 |
| Victoria |  | $\ldots$ | 107 | 86,154 | 7,878 | 9.1 |
| Queensland ... | ... | * | 53 | 27,914 | 1,873 | 6.7 |
| South Australia | ... | ... | 56 | 18,783 | 889 | 4.7 |
| Western Australia | ... | ... | 73 | 18,664 | 1,094 | 5.9 |
| Tasmania | $\ldots$ |  | 42 | 5,100 | 121 | 2.4 |
| Commonwea |  | $\ldots$ | 470 | 292,051 | 19,562 | 6.7 |

## § 3. Variations in Nominal and Effective Wages.

1. Variations in Wage Index-Numbers in Various Industries, 1901 to 1916.-The total number of different occupations for which particulars as to wages are available back to 1891 is 652 . In 1913 the number of occupations was increased to 3948 . These wages relate generally to union rates, but in a few cases, more especially for the earlier years, , when there were no union rates fixed, predominant or most frequent rates have been taken. The occupations have been distributed over the fourteen industrial groups. already specified, and index-numbers computed for each group for the whole Commonwealth. The wages refer generally to the capital town of eách State, but in industries such as mining and agriculture, the rates in the more important industrial centres have been taken.

The following table shews wage index-numbers for the whole Commonwealth in each of the fourteen industrial groups during the years specified. 'Rates of wages for females are not included. The index-numbers are "'weighted" according to the number of persons engaged in different industrial groups in each State and the Commonwealth (see Report No. 5, page 45). In the tables of index-numbers given in this Section, the weighted average wage in 1911 for all States or industries, as the case may be, is taken as base $(=1000)$. The result is that the index-numbers are comparable in all respects, that is to say, they shew not only the variations in wages from year to year in each State or industrial group, but they also furnish comparisons as to the relative wages in each. State or industry, either in any particular year, or as between one year and another, and one State or industry and another.

VARIATIONS IN NOMINAL WAGE INDEX-NUMBERS IN DIFFERENT INDUSTRIES IN THE COMMONWEALTH, 1901 to 1916. (WEIGHTED AVERAGE FOR ALL. GROUPS IN $1911=1000$ ).

| Particulars. <br> r | No. of Occupations included. |  | 1901. | 1907. | 1908. | 1909. | 1910. | 1911. | 1912. | 1913. | 1914. | 1915. | 1916. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{gathered} 1901 \\ \text { to } \\ 1912 . \end{gathered}$ | $1913-$ |  |  |  |  |  |  |  |  |  |  |  |
| I. Wood,Furniture, etc. | 27 | 270 | 1,019 | 1,049 | 1,051 | 1.055 | 1,097 | 1,125 | 1,144 | $\begin{array}{r} \dagger \\ 1,142 \end{array}$ | 1,161 | 1,174 | 1,245 |
| II. Engineering, Metal |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Works, etc. | 101 | 636 | 945 | 971 | 989 | 995 | 1,006 | 1,064 | 1,104 | 1,113 | 1,127 | 1,174 | 1,211 |
| III. Food, Drink, etc. ... | 34 | 576 | 871 | 902 | 905 | 914 | 928 | 991 | 1,038 | 1,074 | 1,085 | 1,127 | 1,194 |
| IV. Cloth'g, Hats, Boots, etc. | 13 | 124' | 708 | 856 | 867 | 935 | 976 | 981 | 1,990 | 1,019 | 1,034 | 1,037 | 1,104. |
| V. Books, Printing, etc. | 25 | 205 | 996 | 1,010 | 1,021 | 1,070 | 1,102 | 1,149 | 1,188 | 1,234 | 1,246 | 1,259 | 1,328 |
| VI. Other Manufactur'g | 102 | 875 | 907 | 905 | 915 | 923 | 947 | 1.013 | 1,037 | 1,076 | 1,093 | 1,125 | 1.203 |
| VII. Building ... ... | 67 | 190 | 1,050 | 1,105 | 1,114 | 1,130 | 1,163 | 1.213 | 1,245 | 1,270 | 1,276 | 1,285 | 1,359 |
| VIII. Mining, Quarries, etc. | 71 | 161 | 1,067 | 1,117 | 1,116 | 1,120 | 1,168 | 1,194 | 1,216 | 1,270 | 1,272 | 1,299 | 1,420 |
| IX. Rail \& TramServices | 68 | 224 | 1,021 | 1,027 | 1,031 | 1,064 | 1,074 | 1,113 | 1,164 | 1,165 | 1,165 | 1,187 | 1,236 |
| X. Other Land Transp't | 9 | 70 | 795 | 813 | 836 | 836 | 889 | 910 | 993 | 996 | 1,026 | 1,041 | 1,128 |
| XI. Shipping, etc. ${ }^{\text {PI }}$ | 74 | 198 | 751 | 787 | 787 | 856 | 857 | 871 | 942 | 953 | 972 | 1,026 | 1,153 |
| XII. Agriculture, Pastoral, etc. | 8 | 72 | 627 | 730 | 736 | 787 | 798 | 839 | 944 | 965 | 965 |  | 1,073 |
| XIII. Domestic, Hotels, ete. | 17 | 114 | 598 | 608 | 626 | 727 | 743 | 887 | 894 | 918 | 935 | 948 | 995 |
| XIV. Miscellaneous ... | 36 | 233 | 759 | 812 | 820 | 843 | 889 | 929 | 1,015 | 1,045 | 1,054 | 1,065 | 1,137 |
| All Groups* | -652 | 3,948 | 848 | 893 | 900 | 923 | 955 | 1,000 | 1,051 | 1,076 | 1,085 | 1,102 | 184 |

[^0]It may be seen that the index-numbers increase during the whole period under review. The wage index-number increased from 848 in 1901 to 1000 in 1911, 1051 in 1912, and to 1184 in 1916.

It was pointed out in Report No. 2 (see pages 25 and 26) that the index-numbers given in the preceding table are readily reversible, that is to say, any year other than the year 1911 can be taken as base, and an example was given, shewing the amount of wages payable in 1901, 1911 and 1912 in each industrial group for every £1 payable in 1891.
2. Variations in Wage Index-Numbers in Different States, 1901 to 1916.-The following table shews the progress in rates of wages for all industries in each State, the weighted average wage for the Commonwealth in 1911 being taken as the base ( $=1000$ ). These results are based generally upon rates of wages prevailing in the capital town of each State, but in certain industries, such as mining, rates are necessarily taken for places other than the capital towns.

These index-numbers are, of course, also reversible, and an illustration was given in Report No. 2 (see page 27).

## VARIATIONS IN NOMINAL WAGE indeX-NUMBERS IN DIFFERENT STATES, . 1901 to 1916.

(Weighted average Wage for Commonwealth in $1911=1000$.)

| States. | No. of Occupations included. |  | 1901. | 1907. | 1908. | 1909. | 1910. | 1011. | 1912. | 1913. | 1914. | 1915. | 1916. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{gathered} 1901 \\ \text { to } \\ 1912 . \end{gathered}$ | $\begin{gathered} 1913- \\ 15 . \end{gathered}$ |  |  |  |  |  |  |  |  |  |  |  |
| New South Wales | 158 | 874 | 858 | 910 | 913 | 942 | 968 | 1,003 | 1,058 | 1,088 | 1,096 | 1.124 | 1,208 |
| Victoria ... ... | 150 | 909 | 796 | 857 | 871 | 887 | 924 | 985 | 1,038 | 1,058 | 1,065 | 1,078 | 1,148 |
| Queensland | 87 | 627 | 901 | 914 | 925 | 946 | 960 | 997 | 1,010 | 1,027 | 1,042 | 1,060 | 1,177 |
| South Australia | 134 | 567 | 819 | 858 | 868 | 905 | 951 | 1,013 | 1,048 | 1,061 | 1,062 | 1,067 | 1,151 |
| Western Australia | 69 | 489 | 1,052 | 1,053 | 1,061 | 1,068 | 1,116 | 1,153 | 1,191 | 1,214 | 1,226 | 1,236 | 1,272 |
| Tasmania | 54 | 482 | 719 | 725 | 725 | 732 | 772 | 799 | 934 | 1,025 | 1,028 | 1,099 | 1,112 |
| Commonwealth* | 652 | 3.948 | 848 | 893 | 900 | 923 | 955 | 1,000 | 1.051 | 1,076 | 1,085 | 1,102 | 1.184 |

[^1]Note.-The flgures in the above table are comparable both horizontally and vertically.

The significance of the above figures since 1906 can be better appreciated by reference to the graph on page 1065, which shews, of course, not only variations in wages in each State from year to year, but also the difference in wage level as between the several States. From this graph it is clearly seen that, excluding Western Australia, the difference between nominal wages in the several States has decreased very considerably since 1906. This difference is shewn at any point by the vertical distance between the graphs. Wages in Queensland increased since 1914 at a higher rate than in any other State, and the general level in that State is now higher than in Victoria, South Australia, or Tasmania. The graphs for Victoria and South Australia lie very close together throughout the period. In Thasmania the first determination under the Wages Boards Acts 1910 and 1911 came into force in 1911. Since then wages in that State have increased rapidly, and their general level is now not far below those of the other States, except Western Australia.
3. Variations in Effective Wages.-In order to oblain an accurate measure of the progress of wage-earners, regard must be had to the purchasing power of wages, and the index-numbers based merely upon records of rates of wages must consequently be
subject to some correction, inasmuch as they take no account of variations in purchasingpower of money. In computing these effective wage index-numbers, the nominal wage index-numbers given in paragraph 2 hereof have been divided by the purchasing-power-of-money index-numbers in Section IV., paragraph 5 of Report No. 7, p. 358. The resulting index-numbers shew for each'State and for the Commonwealth for the years specified the variations in effective wages.

The following table shews the effective wage index-numbers for each State for each of the years indicated from 1901 to 1916.

## variations in effective wages in each state and commonwealth, 1901 to 1916.*

| Particulars. | 1901. | 1906. | 1907. | 1908. | 1909. | 1910. | 1911. | 1912. | 1913. | 1914. | 1915. | 1916. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| New Sonth Wales | 961 | 949 | 933 | 926 | 952 | 973 | 973 | 922 | 924 | 909 | 850 | 867 |
| Victoria. ... | 915 | 919 | 979 | 941 | 980 | 981 | 1,037 | 981 | 1,007 | 964 | 844 | 877 |
| Queensland ... | 1,172 | 1,165 | 1,151 | 1,081 | 1,112 | 1,095 | 1,090 | 1,032 | 1,060 | 1,045 | 912 | 991 |
| South Australia | 948 | 934 | 960 | 911 | 914 | 943 | 957 | 906 | 947 | 929 | 847 | 896 |
| Western Australia | 1,024 | 1,029 | 1,068 | 1,060 | 1,081 | 1,091 | 1,023 | 1,032 | 1,076 | 1,073 | 1,011 | 1,005 |
| Tasmania | 827 | 838 | 818 | 788 | 769 | 812 | 838 | 896 | 976 | 943 | 843 | 870 |
| Commonwealth... | 964 | 960 | 996 | 946 | 974 | 985 | 1,000 | 955 | 975 | 952 | 862 | 894 |

* As to the effect in abnormal periods, see Labour Report No. 6, pp. 20-2, Section IV., par. 3. -

The figures in the above table from the year 1906 onwards are shewn in the graph on page 1066. A comparison between this graph with that on the opposite page shews that the difference between nominal and effective wages is very marked. In the first place, the whole nature of the graphs is entirely different. Instead of having a series of lines shewing a practically continuous and rapid upward trend, the effective wages shew (except for Tasmania), a series of fluctuating points, in which no very marked tendency is immediately discernible. It will be seen that, generally speaking, the years 1907, 1909, 1910, 1911, 1913, and 1916 were marked by increases in effective wages, but that in each of the years 1908, 1912, 1914 and 1915, there were rapid decreases. In each of these years in which effective wages declined there was a rapid increase in cost of food and groceries. In 1914 wages increased 0.9 per cent., but the purchasing-power_ofmoney index-number went up 3.1 per cent., with the result that effective wages decreased 2.3 per cent. In 1915 the nominal wage index-number increased 1.6 per cent., while the purchasing-power-of-money index-number increased 12.1 per cent:, resulting in a decrease of 9.5 per cent. in the effective wage. In 1916 the nominal wage indexnumber increased 7.4 per cent., and the purchasing-power-of-money index-number only 3.6 per cent., whish resulted in the effective wage index-number, shewing an increase of 3.7 per cent.

One important feature common to both graphs (nominal and effective wages) is the manner in which the graphs for the individual States have, on the whole, approached more closely together. With the adoption of differential rates of wages fixed according to the relative purchasing-power of money, it appears probable that this tendency will continue in the future.
4. Variations in Effective Wages and Standard of Comiort, 1901 to 1916.-In the preceding paragraph particulars are given as to variations in effective wages in each State, due allowance having been made for variations in purchasing-power of money, though not for unemployment. Attention has also been drawn to the limitations to which they are subject in abnormal times.

If 48 hours per week be the time for which a given wage is paid, say 60 s ., then for the purpose of estimating the aggregate average earnings, account must be taken of the proportion of time spent in unemployment. For example, if the working days be 300 per year, and the time unemployed be 6 per cent., the actual proportion of working time is 94 per cent., i.e., 18 days are idle in every 300 , or 6 per cent. of the period. Similarly if of the employable an average of onls 94 per cent. are employed, the measure of *unemployment is again 6 per cent., and the employment index-number is 940 , i.e., 940 in 1000 , or 94 per cent.

For years prior to 1913 the data available as to unemployment are so meagre that comparative results allowing for variations both in purchasing-power of money and in unemployment cannot be accurately computed for the several States. In the subjoined table, however, the percentage of unemployment for the whole Commonwealth at the end of the years specified has been used in order to obtain results shewing the variations in unemployment upon effective wages. Column I. shews the nominal rate of wage index-numbers, and Column II. the relative percentages unemployed. Applying these percentages to the numbers shewn in Column I., and deducting the results from each corresponding index-number, so as to allow for relative loss of time, the figures in Column III. are obtained. These figures are then re-computed with the year 1911 as base, and are shewn in Column IV. In Column V. the purchasing-power-of-money index-numbers is shewn, and in Columns VI. and VII. the effective wage indexnumbers are given, firstly, for full work, and, secondly, allowing for lost time. These are obtained by dividing the figures in Columns I. and IV., respectively, by the corresponding figures in Column $V$. The resulting index-numbers shew for the Commonwealth for the years specified the variations in effective wages or in what may be called the "standard of comfort."*

A comparison between the figures in Columns I. and VI. shews the relation between the nominal rates of wages and the purchasing efficiency of these rates. The figures in Column VII. shew variations in effective wages after allowing not only for variations in purchasing-power of money, but also for the relative extent of unemployment.

UNEMPLOYMENT, PURCHASING-POWER-OF-MONEY AND NOMINAL AND EFFECTIVE WAGE INDEX-NUMBERS, 1901 to $1916 . \dagger$

| Year. |  | I.NominalWagesIndex-Number̀s. | II.PercentageUnem-ployed. | Rate of Wages IndexNumbers, allowing for Liost Time. |  | v. <br> Purchas-ing-power-of-money IndexNumbers. | Effective Wage Index-Numbers. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | $\underset{\text { Actual. }}{\text { III. }}$ | $\begin{gathered} \text { IV. } \\ \begin{array}{c} \text { Re-com- } \\ \text { puted. } \\ \text { (1911 } \\ =1,000) . \end{array} \end{gathered}$ |  | VIV Work. | $\begin{gathered} \text { VII. } \\ \text { Allowing } \\ \text { for } \\ \text { Unemploy- } \\ \text { ment. } \end{gathered}$ |
| 1901 |  | 848 | 6.6 | 793 | 832 | 880 | 964 | 945 |
| 1906 |  | 866 | 6.7 | 808 | 848 | 902 | 960 | 940 |
| 1907 | .. | 893 | 5.7 | 842 | 884 | 897 | 996 | 986 |
| 1908 | $\cdots$ | 900 | 6.0 | 846 | 888 | 951 | 946 | 934 |
| 1909 | ... | 923 | 5.8 | 870 | 913 | 948 | 974 | 963 |
| 1910 | $\ldots$ | 955 | 5.6 | 901 | 945 | 970 | 985 | 974 |
| 1911 | $\ldots$ | 1,000 | 4.7 | 953 | 1,000 | 1,000 | 1,000 | 1,000 |
| 1912 | ... | 1,051 | 5.5 | 993 | 1,042 | 1,101 | 955 | 946 |
| 1913 |  | 1,076 | 5.3 | 1,021 | 1,071 | 1,104 | 975 | 970 |
| 1914 | $\ldots$ | 1,085 | 11.0 | 966 | 1,014 | 1,140 | 952 | 889 |
| 1915 | $\ldots$ | 1,102 | 6.8 | 1,027 | 1,078 | 1,278 | 862 | 844 |
| 1916 | $\ldots$ | 1,184 | 6.7 | 1,105 | 1,159 | 1,324 | 894 | 875 |

$\dagger$ As to the effect in abnormal periods, see Section iv., par. 3, of Labour Report No. 6.

[^2]It may be seen that the nominal wage index-number has steadily increased, and that the increase has been at a somewhat greater rate (except in the years 1908, 1912, 1914 and 1915) than the increase in the cost of food, groceries and house rent. Owing to the decreases in these years the effective wage index-pumbers (both "Full Work" and "Allowing for Unemployment") do not, on the whole, shew any general increase, but fuctuate between-a range which reached its maximum in 1911, and its minimum in 1915. In 1907 there was a large decrease in unemployment, which is reflected in the effective wage index-number for that year. The rise in the cost of commodities in 1908, which was a drought year, caused a considerable fall in effective wages. From that year, however, until the year 1911, the effective wage index-number steadily increased from 934 to 1000 , but this increase was almost counterbalanced by the fall in 1912 , which was due to the large increase in cost of commodities and the smaller increase in unemployment. In 1913 the purchasing power of money index-number was practically the same as that for 1912, while nominal wages increased and unemployment decreased, with the result that the effective wage index-numbers, both for full work and allowing for unemployment, shew an increase. The effective wage index-numbers for 1914 both shew a decrease since the preceding year. This decrease is particularly marked in the caise of the index-numbers in which allowance is made for unemployment. In 1915 there was a decrease in unemployment when compared with the preceding year, but on the other hand the cost of food and groceries shews a very substantial increase, so that while nominal wages increased slightly, effective wages index-numbers, both for full work and allowing for umemployment, shew a large decrease, and are, in fact, lower than for any other year covered by the investigation. In 1916, the effective wage-indexnumbers both for full work and allowing for unemployment exhibit an increase. This is due to the fact that the increase in the nominal wage index-number has been greater' than the increase in the index-number, which embraces cost of food, groceries, and house rent.

## § 4. Changes in Rates of Wage:

1. General.-The collection of information regarding changes in rates of wage throughout the Commonwealth dates from the 1st January, 1913.
(i.) Definition of a Change in Rate of Wage. For the purpose of these statistics a change in rate of wage is defined as a change in the weekly rates of remuneration of a certain class of employees, apart from any change in the nature of the work performed or apart from any revision of rates due to increased length of service or experience. It is obvious that under this definition certain classes of changes are excluded, such, for example, as (a) changes in rates of pay due to promotion, progressive increments, or, on the other hand, to reduction in pay or grade to inefficient workers, and (b) changes in average earnings in an occupation due to a change in the proportions which higher paid classes of workers bear to lower paid classes.
(ii.) Sources of Information. Primary information merely as to the fact that a change in rate of wage has occurred is obtained through the following channels:-(a) the Industrial Registrar or Chief Inspector of Factories in each State; (b) Reports from Labour Agents and Correspondents; (c) Quarterly reports from Secretaries of Trade Unions; (d) Returns relating to industrial disputes which resulted in changes in rates of wage; (e) Reports in newspapers, labour and trade reviews, and other publications.
(iii.) Collection of Particulars concerning Chariges. On the occurrence of a change in rate of wage, forms* (prescribed under the Census and Statistics Act 1905) are issued to employers and employers' associations (if any) and also to the secretaries of the trade unions, the members of which are affected by the change. In certain cases forms are also issued, if necessary, to individual employers. The particulars which have to be inserted in these forms furnish information regarding the occupations of the workers affected, the number of workers in each occupation, the rates of wage paid before and

[^3]after the change, the locality affected, and the date on which the change took effect. Information must also be furnished regarding employers and employers' associations concerned (if any), and the method by which the change was effected. ${ }^{1}$

When the forms are returned from the various persons who are required to fill them in, the returns are checked and compared with each other and with copies of awards, determinations, and agreements. In all cases when the information furnished on the forms is incomplete or unsatisfactory, further inquiries are made, and the figures checked by reference to Census results, industrial statistics, factory reports, etc.
2. Comparative Summary of Changes in Rates of Wage in each State during 1915 and 1916. -The following table gives particulars of changes which occurred in each State of the Commonwealth during the years 1915 and 1916 respectively. As regards the number of persons affected, the particulars given refer to the total number of persons ordinarily engaged in the various industries. The results as to the amount of increase in wages are computed for a full week's work for all persons ordinarily engaged in the several industries and occupations affected, and in cases of changes in existing minimum rates under awards or determinations of industriai tribunals, it has ordinarily been assumed (in the absence of any definite information to the contrary) that the whole of the employees in each occupation received the minimum rates of wage before and after the change.

It should be clearly understood that the figures given in the third division of the following table (amount of increase per week) do not relate to the increase each week, but only to the increase in a single week on the assumption that the full number of persons ordinarily engaged in the particular trade or occupation affected by the change were employed during that week. It is obvious, therefore, that the aggregate effect per annum cannot be obtained without making due allowance for unemployment and for occupations in which employment is seasonal or intermittent. It is also obvious that since unemployment and activity in all branches of industry may vary from year to year, and in many branches from season to season also, no accurate estimate of the actual effect of the changes in the total amount of wages receivéd or paid per annum can be made, until the determining factors have been investigated. These factors are ( $a$ ) the amount of tumployment, and (b) the period of employment in seasonal industries.

CHANGES IN RATES OF WAGE IN EACH STATE.-SUMMARISED RESULTS FOR YEARS 1915 and 1916.

| State. | No. of Changes. |  | $\begin{gathered} \text { No. of } \\ \text { Persons Affected. } \end{gathered}$ |  | Total Net Amount of Increase per Week. |  | Average Increase per Head per W'k. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1915. | 1916. | 1915. | 1916. | 1915. | 1916. | 1915. | 1916. |
| New South Wales... | 169 | 377 | 109,260 | 242,564 | $\stackrel{\text { ¢ }}{29,525}$ | $\stackrel{\mathbf{E}_{6,835}}{ }$ | 8. 5 5 | s. d. |
| Victoria | 87 | 168 | 39,087 | 119,878 | 8,078 | 30,566 | 42 | 51 |
| Queensland ... | 60 | 134 | 22,864 | 72,079 | 6,398 | 40,451 | 57 | 113 |
| South Australia ... | 31 | 98 | 10.206 | 40,925 | 3.539 | 9,930 | 611 | 410 |
| Western Australia | 25 | 42 | 2,661 | - 5,848 | - 562 | 1,440 | 43 | 411 |
| Tasmania... ... | 24 | 37 | 3,147 | - 7,232 | 778 | 1,980 | 411 | 56 |
| N. Territory | 3 | 4 | 185 | 258 | 87 | 88 | 95 | 610 |
| F.C.Terxitory $\quad$ - |  | 4 |  | 157 |  | 40 |  | 51 |
| Commonwealth... | 401 | +870 | *197,410 | +492,487 | * 51,905 | +142,923 | *5 3- | $t 510$ |

[^4]two, and in Victoria, South Australia and Western Australia one each, affecting in all 494 workers to the extent of a decrease of $£ 81$ per week; and in 1916:, New South Wales six, Victoria, and Western Australia one each, affecting in all 1730 workers to the extent of a decrease of $£ 286$ per week. It may be observed that not only were the changes in rates of wage recorded greater in number in 1916 than in 1915, but were also of greater magnitude in the average number of persons affected and in the average increase per head per week.
3. Number and Magnitude of Changes in Rates of Wage in the Commonwealth, Classified according to Industrial Groups, 1915 and 1916.-In the following table particulars are given of the number of changes, the number of persons affected, the total amount of increase per week, and the average increase per head per week, classified according to Industrial Groups throughout the Commonweqith during the years 1915 and 1916.
CHANGES IN RATES OF WAGE IN COMMONWEALTH CLASSIFIED IN INDUSTRIAL
GROUPS, 1915 and 1916.*

| Industrial Groups. | No. of Changes. |  | No. of Persons Affected. |  | Total Net Amount of Increase per week. |  | Avarage Increase per Head per week. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1915. | 1916. | 1915. | 1916. | 1915. | 1916. | 1915. | 1916. |
| I. Wood, Furniture,Timber, etc. | 18 | 35 | 4,912 | 16,111 | $\xrightarrow{\substack{1,131}}$ | $\frac{f_{4,255}^{4,2}}{}$ | $\begin{array}{cc}\text { s. } & \\ 4 & \\ 4 & 7\end{array}$ | $\begin{array}{ll}\text { s. } & \text { d. } \\ 5 & 3\end{array}$ |
| II. Engineering, Metail Works,etc. | 51 | 74 | 32,322 | 27,412 | 8,835 | 6,894 | 56 | 50 |
| III. Food, Drink, Tobacco, etc. , | 48 | 107 | 18,214 | 38,171 | 4,204 | 16,383 | 47 | 87 |
| IV. Clothing, Hats, Boots, etc. ... | 7 | 21 | 1,023 | 30,918 | 339 | 6,859 | 68 | 45 |
| V. Books, Printing, etc. | 7 | 27 | 1,724 | 10,210 | 539 | 2,270 | 63 | 45 |
| VI.-Other Manufacturing | 61 | 108 | 15,451 | 34,037 | 2,921 | 9,172 | 39 | 5.5 |
| VII. Building ... ... | 13 | 37 | 6,616 | 37,586 | 1.173 | 12,400 | 37 | 67 |
| VIII. Mines, Quarries, etc. | 37 | 63 | 19,925 | 63,308 | 5,507 | 17,827 | 5.6 | 58 |
| IX. Rail and Tramway Services... | 19 | 64. | 27,140 | 83,526 | 4,629 | 17,450 | 35 | 42 |
| X. Other Land Transport ... | 15 | 31 | 5,468 | 19,232 | 2,082 | 5,282 | 77 | 56 |
| XI. Shipping, etc. ... | 21 | 44 | 13,154 | 12,898 | 3,702 | 3.411 | 58 | 53 |
| XII. Pastoral, etc. ... | 3 | 11 | 2.300 | 16,266 | 852 | 16,858 | 75 | 209 |
| XIII. Domestic, Hotels, etc. | - 11 | 13 | 5,011 | 9,882 | 1,095 | 2,016 | 44 | 41 |
| XIV. Miscellaneous ... | 54 | 186 | 44,150: | 92,980 | 14,896 | 21,847 | 69 | 4.8 |
| Total, Commonwealth | 365 | 821 | 197,410 | 492,487 | 51,905 | 142,923 | 53 | 510 |

* In this table an Industrial Award or Agreement under the Commonwealth Conciliation and Arbitration Act is counted as one change only, although such Award or Agreement may be operative in more than one State.

In point of number of persons affected by changes in 1916, Group XIV. (Miscellaneous), with 186 changes, affecting 92,980 persons, comes first. This is followed in the order named by IX. (Rail and Tramway Services); VIII. (Mines, Quarries, ete.); III. (Food, Drink, Töbacco, etc.); VII. (Building) ; VI. (Other Manufacturing), down to Group

- XIII. (Domestic, Hotels, etc.), with thirteen changes, affecting 9882 persons only. In point of individual increase per head per week, Industrial Group XII. (Pastoral, Agricultural, etc.) with an average increase of 20.9 per week, comes first, followed by Group III. (Food, Drink, Tobacco, etc.) 8s. 7d. per week. Other increases above 5s. per week per worker were recorded for the following Groups:-I., II., VI., VII., VIII., X., and XI. respectively.


## 4. Changes in Rates of Wage in Female Occupations.-Number and Effect of

 Changes in each State, 1915-1916.-Included in the changes in rates of wage recorded in the tables on pages 1065-6 are those which in the whole or part thereof affected female occupations. Particulars in respect to these changes in so far as they relate to the numbers of female workers affeeted, etc., are set out hereunder.(i.) Changes in Rates of Wage according to States. In the following table, particulars are given of the effect of changes in rates of wage to female workers, as recorded for each State during the years 1915 and 1916 inclusive:-

CHANGES IN RATES OF WAGE.-FEMALE OCCUPATIONS.-EFFECT OF CHANGES IN EACH STATE, 1915 and 1916.


[^5]It will be seen that during the pasi two years the greatest movement in any State in wages in female occupations has taken place in New South Wales. In view of the chief industries (millinery, dressmaking, and whitework) in which females are employed not being subject to any award of an industrial board in this State, the results are notable.
(ii.) Changes in Rates of Wage in Female Occupations according to Industrial Groups. The particulars set out in the immediately. preceding table are further analysed and relassified according to the industrial groups in which the changes took place in each State.

## CHANGES IN RATES OF WAGE IN FEMALE OCCUPATIONS IN EACH STATE, CLASSIFIED ACCORDING TO INDUSTRIAL GROUP, 1915 and 1916.

| PARTICULARs. |
| :--- |

[^6]CHANGES IN RATES OF WAGE IN FEMALE OCCUPATIONS IN EACH STATE, CLASSIFIED ACCORDING TO INDUSTRIAL GROUXP-Continued.

| - |  |  |  | - In | dustria | L Grour |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| - Particdlars. | $\because$ |  | I. Wood, Furniture, etc. | II. Engin- eering. Metai. Work. etc. | III. Food, Drink, etc. | IV, Cloth. ing, Hats, Boots. etc. | V. <br> Books Printing. etc. | VI. <br> Other Manuing. |
|  |  | 1916 |  |  |  |  |  |  |
| New South Wales- |  |  |  |  |  |  |  |  |
| Number of Persons affected |  |  | 125 | $\cdots$ | 540 | 4,510 | 2,030 | 843 |
| Amount of Increase per week | ... | $£$ | 38 | ... | 91 | 761 | 342 | 145 |
| Victoria - |  |  |  |  |  |  |  |  |
| Number of Persons affected |  | . | 198 | 29 | 1,344 | 12,864 | 1,440 | 1,482 |
| Amount of Increase per week | ... | £ | 25 | 3 | 198 | 2,808 | 203 | 190 |
| QUEENSLAND- - |  |  |  |  |  |  |  |  |
| Number of Persons affected |  |  | $\cdots$ | .. | 340 | 436 | ... |  |
| Amount of Increase per week- | -.. | £ | $\cdots$ |  | 41 | 54 | ... | ... |
| South Australia- |  |  |  |  |  |  |  |  |
| Number of Persons affected |  | $\cdots$ | 40 | 20 | 110 | 195 | 225 |  |
| Amount of Increase per week |  | ¢ | 6 | 5 | 7 | 26 | 28 |  |
| Western Australia- |  |  |  |  |  |  |  |  |
| Number of Persons affected |  |  | $\cdots$ | $\ldots$ | $\cdots$ | 40 | ... | $\ldots$ |
| Aminount of Increase per week | ... | $£$ | $\cdots$ | $\cdots$ | ... | 8 | ... |  |
| Tasmania- |  |  |  |  |  |  |  |  |
| Number of Persons affected | $\cdots$ | $\cdots$ | 30 | $\cdots$ | ... | 300 | ... | 6 |
| Amount of Increase per week | ... | £ | 7 | $\cdots$ | ... | 33 | .... | 1 |
| Northern Territory- |  |  |  |  |  |  |  |  |
| . Number of Persons affected | .. |  | $\ldots$ | $\ldots$ | $\ldots$ |  | $\ldots$ | $\cdots$ |
| Amount of Increase per week | ... | $\mathcal{L}$ | $\cdots$ | $\cdots$ | $\cdots$ | $\cdots$ | $\cdots$ | ... |
| Commonwealth- |  |  |  |  |  |  |  |  |
| Number of Persons affected |  |  | 393 | 49 | 2,334 | 18,345 | 3,695 | 2,331 |
| Amount of Increase per week |  | - £ | 76. | 8 | 337 | 3,690 | 573 | 336 |
|  |  |  |  |  | destria | I Grour |  |  |
|  |  |  |  |  |  | XIII. |  |  |
| Particulars. |  |  | Rand | Ship. | toral. | Domes- | XIV. | All |
| $\bigcirc$ |  |  |  | ping. | Agric'l | Hotels, | Mnne'us | Groups |
|  |  |  | ( Ser- | etc. | $\begin{aligned} & \text { tural, } \\ & \text { etc. } \end{aligned}$ | etc. |  |  |
|  | 1916 | ont | inued). |  |  |  |  |  |
| New South Wales- |  |  |  |  |  |  |  | , |
| - Number of Persons affected |  |  | 9 | 13 | $\ldots$ | 1,781 | 7,064 | 16,915 |
| Amount of Increase per week | ... | $£$ | 2 | 1 | $\cdots$ | 456 | 1,644 | 3,480 |
| Victoria- |  |  |  |  |  |  |  |  |
| Number of Persons affected | ... |  | $\cdots$ | $\cdots$ | 100 | 40 | 2,714 | 20;211 |
| Amount of Increase per week |  | $£$ | ... | ... | 22 | 7 | 233 | 3,689 |
| QUEENSLAND-- |  |  |  |  |  |  |  |  |
| Number of Persons affected |  |  | $\ldots$ | $\ldots$ | ... | 200 | 2,978 | 3,954 |
| Amount of Increase per week |  | £ | $\ldots$ | $\ldots$ | $\ldots$ | 20 | 462 | 577 |
| SOUTH AUSTRALIA- |  |  |  |  |  |  |  |  |
| Number of Persons affected | ... | $\ldots$ | 3 | $\ldots$ | $\ldots$ | 400 | 346 | 1,339 |
| Amount of Increase per week |  | $£$ | 1 | ... | ... | 39 | 44 | 156 |
| Western austratia- |  |  |  |  |  |  |  |  |
| Number of Persons affecteed | ... | $\cdots$ | ... | ... | $\ldots$ | 120 |  | 179 |
| Amount of Increase per week | ... | $£$ | $\ldots$ | ... | ... | 15 |  | - 26 |
| Tasmania- |  |  |  |  |  |  |  |  |
| Number of Persons affected | $\cdots$ | $\cdots$ | $\cdots$ | $\cdots$ | $\ldots$ | $\cdots$ | 11 | 347 |
| Amount of Increase per week | ... | £ | $\ldots$ | $\ldots$ | ... | ... | 2 | 43 |
| Northerf Territory- |  |  |  |  |  |  |  |  |
| Number of Persons affected |  |  | $\ldots$ | $\ldots$ | $\ldots$ | 9 | $\ldots$ |  |
| Amount of Increase per week | $\cdots$ | $\mathfrak{L}$ | $\cdots$ | ... | $\ldots$ | 6 | ... | 6 |
| Commonwealth- |  |  |  |  |  |  |  | . |
| Number of Persons affected |  |  | , 12 | 13 | 100 | 2,550 | 13,132 | 42,954 |
| Amount of Increase per week |  | £ | 3 | 1 | 22 | 543 | 2,388 | 7.977 |

5. Methods by which Changes were Effected.-In the following table particulars are given for the Commonwealth of the number of changes in rates of wage, the number of workpeople affected, and the total net amount of increase to the weekly wage distribution, brought about either without, or after, stoppage of work, during the years 1915 and 1916 respectively, as a result of the application of one or other of the methods set out in the tables:-

## CHANGES IN Rates OF WAGE.-METHODS BY WHICH EFFECTED, -." 1915 and 1916.

|  | Without Stoppage of Work. |  |  | After Stoppage of Work. |  |  | All Changes: |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Methods by which Changes \#ore Effected. |  |  |  |  |  |  |  |  |  |

1915. 

| By voluntary action of employers | 81 | 17,727 | 3,941 |  |  |  | 21 | i7,727 | 3,941 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| By direct negotiations ... | 38 | 9,069 | 2,415 | 25 | 1,624 | 457 | 63 | 11,593 | 2,872 |
| By negotiations, intervention or assistance of third party | 10 | 784 | 207 | 10 | 1,803 | 386 | 20 | 2,587 | 593 |
| By award of court under Commonwealth Act ... ... ... | 8 | 16.236 | 4,239 | 1 | 150 | 78 | 9 | 16,386 | 4,317 |
| By agreement registered under Commonwealth Act | 13 | 10.680 | 2,812 | 1 | 940 | 268 | 14 | 11,620 | 3,080 |
| By award or determination under State <br> Acts | 201 | 108,251 | 34,244 | - 1. | 280 | 46 | 202 | 128,531 | 34,290 |
| By agreement registered under State | 31 | 5,937 | 2,469 | 5 | 3,029 | 343 | 36 | 8,966 | 2,812 |
| Total | 322 | 189,584 | 50,327 | 43 | 7,826 | 1,578 | 365 | 197,410 | 51,905 |

1916. 

| By voluntary action of employers | 51 | 55,560 | $\stackrel{\&}{10,831}$ |  |  | 年 $\cdots$ | 51 | 55,560 | $\underset{10,831}{f}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| By direct negotiations ... | 133 | 40,174 | 9,645 | 42 | 6,459 | 2,469 | 175 | 46,633 | 12,114 |
| By negotiations, intervention or assistance of a third party | 4 | 3,698 | 984 | 5 | 1,286 | 534 | 9 | 4,984 | 1,518 |
| By award of court under Commonwealth Act | 15 | 40,787 | 14,922 | 2 | 191 | 43 | 17 | 40.978 | 14,965 |
| By agreement registered under Commonwealth Act | 28 | 24,990 | 6,773 | 2 | 91 | 27 | 30 | 25,081 | 6,800 |
| By award or determination under State Acts | 461 | 302,828 | 93,370 | 6 | 2,512 | 635 | 467 | 305,340 | 94,005 |
| By agreement registered under State Acts | 64 | 6,303 | 1,813 | 8 | 7,608 | 877 | 72 | 13,911 | 2,690 |
| Total ... | 756 | 474,340 | 138,338 | 65 | 18,147 | 4,585 | 821 | 492,487 | 142,923 |

Of the results set out in the above table, the most notable is the increase in the number or changes in rates of wage which were granted voluntarily by employers, or brought about by direct negotiations between representatives of employers and employees without the assistance of any third party.

## § 5. Current Rates of Wage in Different Occupations and States.

1. Comparative Table of Time Rates of Wage, 31st December, 1916.-The particulars of wages given hereafter relate to some only of the principal industries and occupations whioh comprise the basis upon which weighted average wages are computed, and are obtained primarily from awards, determinations and agreements under. Commonwealth and State Acts, and therefore shew the minimum rates prescribed. In cases where no award, determination, or agreement was in force, particulars are given, where possible, of the ruling union or predominant rate as furnished by employers or Secretaries of Trade Unions. All particulars obtained from this source are marked with an asterisk. It will be seen that for convenience of comparison the wages are in nearly all cases presented as a weekly rate, though in many industries they are actually based on daily or hourly rates, as specified in awards, determinations, or agreements. This caution is necessary, in view of the fact that it is often in those industries and occupations in which employment is of an exceptionally casual or intermittent nature that wages are fixed or paid at a daily or hourly rate. Hence the average weekly earnings in such occupations will probably fall considerably short of the weekly rates specified in the table.

The rates specified refer generally to the capital town of each State, but in industries, such as mining and agriculture, rates are necessarily taken for places other than the capital towns. The figures given in the first part of the table relate to adult male workers, and in the second part to adult female workers, and in each case represent (except where otherwise specified in the footnotes) the amounts payable for a full week's work of 48 hours. In every case where the hours of labour constituting a full week's work are other than 48, the number of hours is indicated in the footnotes.
2. Weighted Average Nominal Rate of Wage Payable to Adult Male Workers in each State, 31st December, 1916.-The following table shews the weighted average nominal weekly rate of wage payable to adult male workers for a full week's work in each State and the Commonwealth. Taking the average for the whole Commonwealth as the base ( $=1000$ ), index-numbers for each State are also shewn. The number of occupations upon which these results are based amounts in the aggregate to no fewer than 3948.

## weighted ayerage nominal weekly rate of wage payable to adult -MALE WORKERS FOR A FULL WEEK'S WORK, AND WAGE INDEX-NUMBERS IN EACH INDUSTRIAL GROUP, 31st DECEMBER, 1916.

| Particulars. |  |  |  | N.S.W. |  | Vic. |  | Q'land. | S.A. | W.A. | Tas. | C'wlth. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Number of Occupations included Weighted Average Weekly Rates of Wages ... <br> Index-Numbers $\quad \cdots \quad . .$. |  |  |  | 874 |  | 909 |  | 627 | 567 | 489 | 482 | 3.948 |
|  |  |  |  | 61s. 11d. |  |  |  | 60s. 4 d . | 59s. 0d. | 65s. 2d. | 57s. 0d: | 60s. 8d.* |
|  |  |  |  | 1,021 |  | 970 |  | 996 | ${ }_{973}$ | 1,075 | ${ }^{940}$ | 1,000* |

The results shew that the weighted average nominal rate of wage was highest in Western Australia, followed in the order named by New South Wales, .Queensland, South Australia, Victoria, and Tasmania.
3. Weighted Average Nominal Weekly Rate of Wage Payable to Adult Male Workers in each Industrial Group, 31st December, 1916.--The following table gives similar particulars in regard to the several industrial groups and to the weighted average for all groups combined. In computing the index-numbers the weighted average for all groups is taken as base $(=1000)$.

## Weighted average nominal weekly rate of wage payable to adult male workers for a full week's work, and wage index numbers in EACH INDUSTRIAL GROUP, 31st DECEMBER, 1916.

| Industrial Group. | No. of Rates Included: | Weighted Aver. Weekly Wage (for Full Week's Work). | IndexNumbers. |
| :---: | :---: | :---: | :---: |
| I. Wood, Furniture, etc. | 270 | $\begin{array}{ll}\text { 8. } \\ 63 & \text { d } \\ 63\end{array}$ | 1,053 |
| II. Engineering, Metal Works, etc. | 636 | 621 | 1,024 |
| III. Foed, Drink, etc. ... ... | 576 | 612 | 1,009 |
| IV. Clothing, Boots, etc. ... | 124 | 567 | 933 |
| V. Books, Printing, etc. ... | 205 | 68 1 | 1,123 |
| VI. Other Manufacturing | 875 | 618 | 1,016 |
| VII. Building ... ... ... | 190 | 698 | 1,148 |
| VIII. Mining, etc. ... ... | 161 | 729 | 1,200 |
| IX. Rail and Tram Services, etc. | . 224 | 635 | 1,045 |
| X. Other Land Transport ... | 70 | 5710 | 954 |
| XI. Shipping, etc. ... ... | 198 | $591 \dagger$ | 974 |
| XII. Agricultural, Pastoral, etc. ... | 72 | $550 \ddagger$ | 908 |
| XIII. Domestic, Hotels, etc. | 114 | 5108 | 841 |
| XIV. Miscellaneous . | 233 | 583 | 961 |
| All Groups ... | 3,948 | 608 | 1,000* |

[^7]From the above table it may be seen that the highest weighted average wage was that paid in Group VIII. (Mining), 72s, 9d. per week, or approximately 20 per cent. above the weighted average for all groups. The rates of wage range from 72 s .9 d . per week down to 51s: Od. per week, the lowest being in Group XIII. (Hotels, eta.), which is nearly 16 per cent. below the average of all groups.
4. Weighted Average Nominal Rate of Wage Payable to Adult Female Workers In each State, 31st December, 1916.-The following table shews the weighted average nominal weekly rate of wage payable to adult female workers for a full week's work in each State and the Commonwealth. Taking the average for the whole Commonwealth as the base ( $=1000$ ), index-numbers for each State are also shewn:-

## weighted average nominal weekly rate of wage payable to adult FEMALE WORKERS FOR A FULL WEEK'S WORK, aND WAGE INDEX-NUMBERS IN EACH STATE aND COMMONWEALTH, 31st DECEMBER, 1916.

| Particulars. | N.S.W. | Vic. | Q'land. | S.A. | W.A. | Tas. | C'wlth. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Number of Occupations included... | 85 | 87 | 37 | 47 | 24 | 28 | 308 |
| Weighted Average Weekly Rate of Wage | 285. 7d. | 28s. 6d. | 27s. 4d. | 24s. 11d. | 38s. 10d. | 28s. 4 d . | 28s. 6d.* |
| Index-Numbers | 1,009 | 1,000 | 959 | 873 | 1,364 | 994 | 1,000* |

[^8]NOMLINAT WAGE INDEN-N゙UMBERS IN EACH STATE, AND COMMONWEATTH, 1906 to 1916.


WFFEOTIVE W゙GGE LNDFXNEMFERS IN EIOF STATE, AND COMMONWEALTH, nems to 1914.


It will be seen that the weighted average nominal rate of wage for adult female workers was highest in Western Australia, followed in the order named by New South Wales, Victoria, Tasmania, Queensland and South Australia.
5. Weighted Average Nominal Rate of Wage Payable to Adult Female Workers in Industrial Groups, 31st December, 1916. -The following table gives separate particulars regarding the weighted average nominal rates of wage of females in the chief industrial groups in which they are employed, and also shews the weighted average for all groups combined. Index-numbers based on the average for the Commonwealth as the base $(=1000)$ are also given :-

## WEIGHTED AVERAGE NOMINAL WEEKLY RATES OF WAGE PAYABLE TO ÀDULT FEMALE WORKERS FOR A FULL WEEK'S WORK, AND WAGE INDEX-NUMBERS IN INDUSTRIAL GROUPS, 31st DECEMBER, 1916.

| Industrial Groups. | - No. of Rates Included. | Weighted Average Weekly Wage (for Full Week's Work) | IndexNumbers. |
| :---: | :---: | :---: | :---: |
| III. Food, Drink, etc. ... | 35 | $\begin{array}{cc}\text { s. } & \\ 25 & 4 \\ \end{array}$ | 888 |
| IV. Olothing, Boots, etc. ... ... | 114 | $26 \quad 11$ | 946 |
| I., II., V., VI., All Other Manufacturing combined | 84 | 295 | 1,034 |
| XIII. Domestic, Hotels, etc. ... | 57 | $31{ }^{2}{ }^{*}$ | 1,094 |
| XIV. Shop Assistants, Clerks, etc. ... | 18 | 2910 | 1,048 |
| All Groups . ... ... | 308 | $28 \quad 6$ | 1,000 $\dagger$ |

[^9]6. Relative Hours of Labour and Hourly Rates of Wage, 1914, 1915 and 1916.—The: rates of wage referred to in the preceding paragraphs of this section relate to the minimum rates payable for a full week's work. It should be observed, however, that the number of hours which constitutes a full week's work differs in many instances, not only as between various trades and occupations in each individual State, but also as between the same trades and occupations in the several States. In order to secure what may be for some purposes a more adequate standard of comparison, it is desirable to reduce the comparison to a common basis, viz., the rate of wage per hour. Particulars are given in the following table, classified according to States, for male and female occupations separately, at 30th April and 31st December, 1914, at 31st December, 1915, and at 31st December, 1916. $\ddagger$ These particulars relate to ( $a$ ) the weighted average nominal weekly wage, (b) the weighted average number of working hours constituting a full week's work, and (c) the weighted average hourly wage. It should be observed that the weighted average weekly wage relates to all industrial classes combined, and includes the value of board and lodging, where supplied, in land occupations, and the value of victualling in marine occupations, § whereas the number of working hours and

[^10]the hourly wage relate to all industrial classes other than Groups XI. (Shipping), and XII. (Agricultural, Pastoral, etc.). Owing to the fact that many of the occupations included in these two groups are of a casual or seasonal nature, and that the hours of labour in these occupations are not generally regulated either by awards or determinations of industrial tribunals or otherwise, the necessary data for the computation of the average number of working hours are not available.

The general effect of reducing the rates of wage to a common basis (i.e., per hour) is to decrease the amount of the difference shewn when comparing the weekly wage in the several States.

## weighted ayerage nominal weekly and hourly rates of wage payable TO adult workers, and weekly hours of labour, 30th april, 1914, 31st DECEMBER, 1914, 1915, and 1916.



FEmALE WORKERS.

| $\begin{aligned} & \text { 30th April, } \\ & 1914 . \end{aligned}$ | $\left\{\begin{array}{l}\text { Weekly Wage ... } \\ \text { Working Hours } \\ \text { Hourly Wage ... }\end{array}\right.$ | s. 26 d. 49.34 6.51d. s. d | s. 27. 48. 48.54. 6.78. | s. 2. 26.11 49.32 6.48 d s. | s. 24. 49.33 5.85d. s. | s. 37 di 48.69 9.20d. s. | s. d. 25 10 50.76 6.11 d s. | s. 27 49. 4. 6.64d. s. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | (Weekly Wage | S. 2f d. di |  |  | $\stackrel{\text { s. }}{24} 1$. | S. ${ }_{37}{ }_{4}$ | s. 25 d d | s. <br>  <br> 27 <br> 8. <br> 5 |
| 31st Dec., 1914. | W Working Hours | 49.34 | 48.54 | 49.82 | 49.33 | 49.44 | 50.76 | 49.11 |
|  | Hourly Wage ... | 6.53a. | 6.87d. | 6.53त. | 5.85 d . | 9.06 d . | 6.11d. | 6.70d. |
| 31st Dec.,1915. . | Weekly Wage | s. ${ }_{27}{ }^{\text {d }}$ | s. d. 26 11 | s. <br> s. <br> 26.11 <br> 1. | s. <br> 24 <br> 24 |  | s. 28. 28. 0 |  |
|  | Working Hours | 49.45 | 48.46 | 49.84 | 49.35 | 49.86 | 50.14 | 49.12 |
|  | Hourly Wage ... | 6.65d. | 6.67 d . | 6.48d. | 5.96 d . | 9.01 d . | 6.71 d . | 6.68 d. |
| $\begin{aligned} & \text { 31st Dec., } \\ & \text { 1916. } \end{aligned}$ |  |  | s. d. | s. d. |  |  |  |  |
|  | ( Weakly Wage ... | 28.7 | 285 | 27.3 | 2410 | 3810 | 283 | 285 |
|  | Working Hours | 49.44 | 48.36 | 49.85 | 49.02 | 49.08 | 49.83 | 49.02 |
|  | Hourly Wage . | 6.93d. | 7.06d. | 6.58d. | 6.08 d . | 9.50 d . | 6.82d. | 6.96d. |

* Weighted average weekly wage in all industrial classes combined. + Weighted average working hours per week, and computed hourly rates of wage for all industrial classes excepting Classes XI. (Shipping, etc.), and XII. (Agricultural, Pastoral, etc.). Working hours have not been generally regulated by industrial tribunals for occupations classified in industrial Classes XI. and XII.

From the foregoing table it may be seen that with the exception of Western Australia, there has been a steady diminution in the number of working hours constituting a full week's work in male occupations. On the other hand, excepting in Victoria, South Australia, and Tasmania, the hours of work in female occupations have shown a slight increase. The effect of these changes on the hourly rate of wage as compared with the general increase in the weekly wage is readily seen from the comparative index-numbers given in the following table. In each instance (male and female occupations separately) the basis taken is the weighted average for the Commonwealth at the 30 th April, 1914, as base ( $=1000$ ).

# RELATIVE INDEX-NUMBERS FOR WEEKLY AND HOURLY WEIGHTED AVERAGE WAGE, 30th APRIL, 1914, 31st DECEMBER, 1914, 1915, and 1916. 

NOTE.-Weighted Average for the Commonwealth at 30th April, 1914, as base $(=1000)$.

| Date. | Particulars. | N.S.W. | Vic. | Q'land. | S.A. | W.A. | Tas. | f'w'lth |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |

Male Worierg.

| 30th April, $1914 . .$. | \{ Weekly Wage |  | 1,011 | 984 | 955 | 986 | 1,198 | 952 | 1,000 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | \{ Hourly Wage | .... | 1,998 | 980 | 963 | 991 | 1,170 | 933 | 1,000 |
| 31st Dec., 1914 ... | \{ Weekly Wage | $\ldots$ | 1,019 | 990 | 969 | 988 | 1,140 | 956 | 1,008 |
|  | \{ Hourly Wage | $\ldots$ | 1,010 | 990 | 985 | 993 | 1,173 | 936 | 1,009 |
| 31st Dec., 1915 | \{ Weekly Wage | ... | 1,044 | 1,002 | 986 | 992 | 1,149 | 965 | 1,023 |
|  | \{ Hourly Wage | $\ldots$ | 1,039 | 1,006 | 1,008 | 1,001 | 1,182 | 946 | 1,030 |
| 31st Dec., 1916 ... | Weekly Wage |  | 1,123 | 1,067 | 1.095 | 1,071 | 1,188 | 1,034 | 1,100 |
|  | Hourly Wage |  | 1,127 | 1.074 | 1,097 | 1,075 | 1,206 | 1,011 | 1,105 |

Female Workers.

| 30th April, 1914 ... | f Weekly Wage | $\cdots$ | 984 | 1,006 | 989 | 885 | 1,373 | 950 | 1,000 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | \{ Hourly Wage | ... | 980 | 1,021 | 976 | 881 | 1,386 | 920 | 1,000 |
| 31st Dec., 1914 ... | \{ Weekly Wage | $\cdots$ | 987 | 1,022 | 996 | 885 | 1,373 | 950 | 1,008 |
|  | H Hourly Wage | ... | 983 | 1,035 | 983 | 881 | 1,364 | 920 | 1,009 |
| 31st Dec., 1915 ... | ( Weekly Wage | $\ldots$ | 1,007 | . 990 | 990 | 901 | 1,376 | 1,031 | 1,005 |
|  | Hourly Wage | ... | 1,002 | 1,005 | 976 | 898 | 1,357 | 1,011 | 1,006 |
| 31st Dec., 1916 ... | f Weekly Wage | ... | 1,050 | 1,047 | 1,004 | 915 | 1,429 | 1,041 | . 1,047 |
|  | ( Hourly Wage |  | 1,044 | 1.063 | 991 | 916 | 1,431 | 1,027 | 1,048 |

Comparing the index-numbers for the Commonwealth for the weekly and hourly wage at the 30th April, 1914, and at the 31st December, 1916, in male occupations, it may be seen that the former increased 10 per cent. in contrast with the latter, which increased 10.5 per cent.; the difference, 0.5 per cent., being due to the effiect of the shorter working hours.
7. Rates of Wage of Adult Males and Females.-In the tabular statement on pages 1070 et seq. particulars are shewn for adult males and females separately of the minimum rates of wage fixed by awards, determinations, or agreements, at 31st December, 1916. (See paragraph 1 of this section.)

## minimum rates of wage for adult male workers in the main occupations in the capital town of each state for a full week' work, AT 3Ist DECEMBER, 1916.

Note.-Ruling or predominant rates of wage are distinguished from Award, Determination, or Industrial Agreement rates of wase by an asterisk ( ${ }^{(1)}$. Except where otherwise specified by a numerical prefix in small type, the hours of labour constituting a full week's work are forty-eight. Award. Determination, or Agreement rates are quoted from the latest Awards, Determinations, or Agreements made, but which were not invariably in force on the 31st December, 1816. It is found, however, that in those States in which Awards, Determinations, or Industrial Agreements are made for a specified period, that pending further review of the rates of wage and hours of labour. those previously determined or agreed upon are usually maintained. Where two or more Award, Determination, or Agreement rates are quoted, the reason for such is that different rates of wage bave been fixed for various classes or grades of work. It will be seen that in certain cases of this nature the wages are shewn in the form, say. 50 s . to 57 s ., indicating that in addition to the troo rates specified, there are also certain intermediate rates in force. In other cases the rates are shewn in the form 548 . and 60 s., indicating that there are only two minimum or standard rates in force for different classes and grades of work, and that there are, of course, no intermediate minimum or standard rates.

| Industry and Occupation. | Sydney. | Melb. | Brisban | Adelaide. | Perth. | Hobart. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Group I.-Wood, FURNItURe, Sawmills and Timber Yard. |  |  |  |  |  |  |
| Coopers | $\begin{array}{cc} \hline \text { s. } & \text { d. } \\ 80 & 0 \end{array}$ | $\begin{array}{cc} \text { s. } & \text { d. } \\ 72 & 0 \end{array}$ | ( $\begin{array}{r}\text { s. } \\ 867 \\ \& 72\end{array}$ | $\begin{array}{ll} \text { s. } & \text { d. } \\ 66 & 0 \end{array}$ | $\begin{array}{cc} \text { s. } & \text { d. } \\ 80 & 0 \end{array}$ | $\begin{array}{cc} \text { s. } & \text { d. } \\ 70 & 0 \end{array}$ |
| Furniture and Bedding. 00 |  |  |  |  |  |  |
| Bedding Makers ... | 630 | 60 0 | ${ }^{6} 60$ | 626 |  | 526 |
| Boults Carver Operator | *69 0 | 690 | ${ }^{6} 68$ 9 | *61 6 | 750 | 660 |
| Cabinet Makers ... | 670 | 650 | ${ }^{6} 68 \quad 9$ | 650 | 69 0 | 60 0 |
| Carpet Cutters | 84 | 70 | $\cdots$ |  | ... | 60 0 |
| ,, Layers | $70 \quad 0$ | 650 | $60 \quad 0$ | *56 0 | $\ldots$ | 60 0 |
| ,' Planners | 70 | 700 |  | $\ldots$ | . | 60 0 |
| Chair Makers | 670 | 650 | ${ }^{6} 68$ | 650 | 690 | 60 0 |
| Drape Cutters | 840 | 65 65 6 | ... | ... | ... | ... |
| , Fitters |  | 650 | 5 | $\cdots$ | $\cdots$ |  |
| French Polishers | $67 \quad 0$ | 650 | ${ }^{6} 65$ | 650 | 660 | 600 |
| Upholsterers | $67 \quad 0$ | 650 | ${ }^{6} 65 \quad 1$ | 650 | 660 | 60 0 |
| Wood Carvers | $67 \quad 0$ | 650 | ${ }^{6} 68$ 9 | 65 0 | 750 | 60 0 |
| , Machinists | 670 | 630 | ${ }^{6} 5610$ | 650 | 720 | 540 |
| \% Turners |  |  | $\text { to } 6611$ |  |  |  |
| , Turners | 670 | 650 | ${ }^{6} 68 \quad 9$ | 650 | 690 | $60 \quad 0$ |
| Mattress Making (Wire). |  |  |  |  |  |  |
| Finishers Makers ... |  |  | ${ }^{6} 60$ |  |  | 526 52 |
| Makers... | $\begin{array}{ll}57 & 6 \\ 57 & 6\end{array}$ | 58 58 58 | ${ }^{6} 60$ | 50 43 4 | 660 | 52 52 52 |
| Organ Building. <br> Journeymen | 720 | 580 | ... | $\cdots$ | $\cdots$ | ... |
| Overmantels and Mantelpieces. <br> Journeymen | $67 \quad 0$ | 650 | $\cdots$ | 650 | ... | $60 \quad 0$ |

+ Coopers employed in Breweries, 78s.
Various numbers of hours constituting a fuill week's work
(1) 18 hours. (2) 30 hours. (3) 33 hours. (4) 36 hours. ( $4 a$ ) $41 \frac{1}{2}$ hours. (5) 42 hours. (5a) 43 hours. (5b) $43 \frac{1}{2}$ hours. ( $5 c$ ) $43 \frac{3}{3}$ hours. (6) 44 hours. (7) $44 \frac{1}{2}$ hours. (8) 45 hours. (9) $45 \frac{1}{2}$ hours. (10) 46 hours. (11) $46 \frac{1}{2}$ hours. (12) 47 hours. (12a) $47 \frac{1}{2}$ hours. (13) $47 \frac{4}{2}$ houtrs. (14) 49 hours (15) $49 \lambda^{2}$ hours. (16) $49 \frac{1}{2}$ hours. (17) 50 hours, (18) 51 hours. (18a) $51 \neq$ hours. (19) 52 hours. (20) 524 hours. (21) $52 \frac{1}{3}$ hours. (22) 53 hours. (23) $53 \frac{1}{4}$ hours. (24) $53 \frac{1}{3}$ hours. (25) 54 hours. (26) $54 \frac{1}{8}$ hours. (27) 55 hours. (28) 56 hours. (29) $56 \frac{1}{2}$ hours. (30) 57 hours. (31) 58 hours. (32) 59 hours. (33) 60 hours. ( $33 a$ ) 52 hours. (34) 63 hours. (35) 65 hours. ( 36 ) 70 hours. ( 37 ) 72 hours. ( 38 ) 77 hours. ( 38 ) 88 hours per fortnight. (39) 7 nights. ( $39 a$ ) 96 hours per fortnight. ( $39 b$ ) 98 hours per fortnight. (39c) 112 hours per fortnight. (40) 116 hours per fortnight. (41) 136 hours per fortnight. (42) 144 hours per fortnight. (42a) 156 hours per fortnight. (43) 50 hours (summer), 46 hours (winter). (43a) 50 hours (summer), 48 hours (winter). (44) 52 hours (summer), 45 hours (winter). ( $44 a$ ) 52 hours (day), 48 hours (night). (45) 54 hours (summer), 48 hours (winter). (46) $54 \frac{1}{2}$ hours (summer), $52 \frac{1}{2}$ hours (winter). (47) 55 hours (summer), 46 hours (winter). ( $47 a$ ) 55 hours (summer), 50 hours winter). (47b) 55 hours (summer), 52 hours (winter). (48) 55 hours (summer), 54 hours (winter). (49) 56 hours (summer). 48 hours (winter). (49a) 56 hours (summer), 52 hours (winter). (49b) 56 hours (summer), 53 hours (winter). (50) 57 hours (summer), 44 hours (winter). ( 50 a ) 57 hours (summer), 48 hours (winter). (50b) 57 hours (summer), 524 hours (winter). ( 51 ) 58 hours (summer), 46 hours (winter). (52) 58 hours (summer), 50 hours (winter). ( 53 ) 58 hours (summer), 56 hours (winter). (54) 59 hours (summer), 58 hours (winter). (55) 60 hours (summer), 56 hours (winter). (56) 60 hours (summer), 58 hours (winter). (57) 84 hours and 72 hours alternate weeks. (58) 48 hours, 51 hours, 54 hours four months each in each year. (59) 56 hours and 59 hours within certain radius. (60) 56 hours and 60 hours within certain radius. (61) 58 hours (summer), 54 hours (winter).

WEEKEY RATES OF WAGE, ©TC.-Continued.


[^11]WEEKLY RATES OF WAGE, ETC.-Continued.

| Industry and Occupation. | Sydney. | Melb. | Brisbane. | Adelaide. | Perth. | Hobart. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |

Group II.-Engineering, Metal works, etc.


See also explanatory notes on page 1070.

WEEKLY RATES OF WAGE, ETC.-Continued.

| Industry and Occupation. | Sydney. | Melb. | Brisbane. | Adelaide. | Perth. | Hobart. |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |

Group II.-Engneering, Metal Works, etc.-Continued.

| Brass Working. $\dagger$ Coremakers | ... |  | $\begin{array}{\|cc\|} \hline \text { s. } \\ 68 \\ 8 & 0 \\ 8 & 0 \end{array}$ |  | s. |  | $\begin{array}{\|cc\|} \hline \text { s. } & \text { d. } \\ { }^{8} 44 & 0 \end{array}$ | $\begin{array}{lc} \hline \text { s. } & \text { d. } \\ 48 & 0 \end{array}$ |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Dressers ... | $\cdots$ |  | 59 |  | 57 | 0 | ${ }^{6} 44$ | 43 |  |  |  |  |
| Finishers ... | ... | ... | 70 |  | 69 | 0 | ${ }^{6} 606$ | *75 |  |  |  |  |
| Furnacemen |  |  | 630 |  | 59 | 6 | ${ }^{6} 49$ | 43 | 66 |  | 42 |  |
| Moulders |  |  | $\begin{array}{r}68 \\ \& 72 \\ \hline 72\end{array}$ |  | 69 | 0 | ${ }^{6} 44$ | 60 |  |  | 60 |  |
| Polishers |  |  | 60 |  | 62 | 0 |  | 45 |  |  |  |  |
| Cycles and M |  |  |  |  |  |  |  |  |  |  |  |  |
| Assemblers | $\therefore$ | ... |  |  | $\begin{array}{r} 57 \\ \& 60 \end{array}$ | $\begin{aligned} & \mathbf{6} \\ & 0 \end{aligned}$ | $\cdots$ | $\ldots$ |  |  | 52 |  |
| Cleaners |  |  | 56 |  | 57 |  |  |  |  |  | 52 |  |
| Filers |  |  | 53 |  | 57 | 6 |  |  |  | 0 | 52 |  |
| Fitters | , |  | 60 |  | 60 |  |  | ... |  |  | 65 |  |
| Frame Builders | ... |  | 56 860 |  | 57 $\times 62$ |  |  |  | ... |  |  |  |
| Repairers .... | $\ldots$ |  | - 56 |  | 57 | 6 | $\cdots$ | ... | .. |  | . 50 |  |
|  |  |  | \& 60 |  | \& 60 | 0 |  |  |  |  | 852 |  |
| Turners (Cycle) |  |  | 60 |  |  |  | $\ldots$ | $\ldots$ |  |  | 65 |  |
| , ${ }^{\text {, }}$ (Motor) | $\ldots$ |  | 70 |  | 70 | 0 | ... | ... |  |  | 65 |  |
| Wheel Builders |  |  | 53 |  | 57 | 6 | $\cdots$ | ... |  |  | 55 | 0 |
| Electrical Installa |  |  |  |  |  |  |  |  |  |  |  |  |
| Armature Wind |  | . | 82 |  | 66 | - | 81 |  | 72 | 0 | 69 |  |
| Cable Jointers |  |  | 82 |  | 81 | 0 | 78 | 60 |  |  | - 66 |  |
| Fitters ... | ... |  | 82 |  | 66 | 0 | 81 | 660 | 72 |  | 69 |  |
| Linemen ... | $\ldots$ |  | 74 |  | 74 | 0 | 69 | $60 \quad 0$ | 63 | 0 | 57 862 | 0 0 |
| Mechanics |  |  | 74 |  | 74 |  | 78 |  | 72 | 0 | 69 |  |
| Patrolmen | $\ldots$ |  |  |  | 63 | , |  | 600 |  |  | 66 |  |
| Wiremen ... |  |  | 74 |  | 74 | 0 |  | 510 | 66 | 0 |  |  |
| " Assist |  |  | ... |  | 63 | 0 |  |  |  |  | 5 |  |
| Other Adults |  |  | . |  | 63 | 0 |  | 480 | 54 | 0 | 5 |  |
| Electrical Supply. Armature Winde |  | ... | 82 |  | $\begin{array}{r} 54 \\ \& 63 \end{array}$ | $\begin{aligned} & 0 \\ & 0 \end{aligned}$ | 81 | 660 | 72 | 0 |  | 0 |
| Cable Jointers |  |  | 82 | 0 | 63 | 0 | 78 |  | $\cdots$ |  | 66 | 0 |
| Carboner (Arc La | A | d.) | 62 |  | 54 | 0 | 63 0 | 480 |  |  |  |  |
| Instrument Mak |  |  | 70 |  | 63 | 0 | 810 | 60 0 | *72 | 0 | 69 |  |
| Linemen |  |  | 74 |  | 60 | 0 | 690 | 6010 | 63 | 0 | 57 | O |
| Meter Fixers |  |  | * 78 | 0 | 55 | 6 |  |  |  |  | 5 | ${ }^{0}$ |
| Testers |  | . | 72 | 0 | 63 | 0 | 81 | $60 \quad 0$ |  |  | 69 |  |
| Patrolmen (Nigh |  | ... | * 60 |  | 66 | 0 |  | 600 |  |  | 66 |  |
| Shift Electrician |  |  |  |  | 66 | 0 | $\left\lvert\, \begin{array}{rr} 71 & 0 \\ \text { to } 85 & 0 \end{array}\right.$ |  |  |  |  |  |
| Sub-Station Atte | dant |  |  |  | 60 | 0 |  |  |  |  | 68 |  |
| Switchboard Atte | dant |  | 60 |  | 54 | 0 | 57 |  |  |  |  |  |
| Switchmen | ... | $\ldots$ |  |  | 52 | 6 |  | 540 | ... |  |  |  |
| Other Adults | ... |  | *62 0 |  | 51 | 0 | 57 | $48 \quad 0$ | ... |  |  |  |
| Electrical Trades. |  |  |  |  |  |  |  |  |  |  |  |  |
| Fitters ... |  |  | 82 |  | 66 | 0 | 81 | 660 | 72 | 0 | 69 |  |
| Mechanics | ... |  | 74 |  | 63 | 0 | 78 | 600 | 72 | 0 | 69 | 9 |
| Wiremen ... |  |  | 74 |  | 63 | 0 | 69 | 51 | 66 | 0 | 60 | 0 |

[^12]WEERLY RATES OF WAGE, ETC.-Continued.


WHEKEY RATES OF WAGE, ETC.-Continued.

| Industry and Occupation. | Sydney. | Melb. | Brisbane. | Adelaide: | Perth. . Hobart. |
| :--- | :--- | :--- | :--- | :--- | :--- |

Group II.-Engineering, Metal Works, etc.-Continued.

$\ddagger$ Melbourne rates from 1st January, 1917. $\ddagger$ Adelaide rates from 25th January, 1917.

WEEKLY RATES OF WAGE, eTc.-Continued.


Group iI.-Engineering, Metal Works, etc.-Continued.

| Galvanising. $\dagger$ <br> Galvanisers |  | S. |  | $\stackrel{\text { S. }}{66}$ | ${ }_{0}^{\text {d. }}$ |  |  |  |  | s. d. | s. d. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Gaivanisers Picklers |  | 60 | 0 | 61 | 0 | 60 | 0 |  | 0 |  |  |
| Picklers " $($ Assistant) |  | 60 | 0 | 56 | 0 | ... |  | - |  | ... | $\ldots$ |
| Nailmakers. $\dagger$ |  |  |  |  |  |  |  |  |  |  |  |
| Case Wirers |  | 48 | 0 | 51 | 0 | $\ldots$ |  | $\ldots$ |  | $\ldots$ | ... |
| Labourers |  | 57 | 0 | 51 | 0 | ... |  | ... |  | $\ldots$ | ... |
| Setters Up | $\ldots$ | 55 | 0 | 60 | 0 | $\ldots$ |  | $\ldots$ |  | $\ldots$ | ... |
| Storemen ... |  | 57 | 0 | 56 | 0 | ... |  |  |  | ... | ... |
| Toolmakers |  | 60 $\& 64$ |  | 63 | 0 | $\ldots$ |  | ... |  | ... | ... |
| Wire Netting Workers. Hand-Loom Weavers | ... | 64 | 0 | 57 | 6 | ... |  |  |  | $\ldots$ | ... |
| Power-Loom " |  | 55 | 6 | 57 | 6 | $\ldots$ |  |  | 0 | $\cdots$ | ... |
| Strikers ... | ... | 48 | 0 | 48 | 0 | ... |  | ... |  | ... | ... |
| Wire Working. Jourqeymen | ... | 64 | 0 | 57 | 6 | ... |  |  |  | ... | ... |

Group III.-Food, Drink, Tobacco, etc.

$\dagger$ Melbourne rates from 1st January, 1917. See also explanatory notes on page 1070.

WEEKLY RATES OF WAGE, ETC.-Continued.

| Industry and Ocoupation. | Sydney. | Melb. | Brisbene. | Adelaide. | Perth. | Hobart. |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |

group III.-Food, Drink, Tobacco, etc.-Continued.


WEEKLY RATES OF WAGE, ETC.-Continued.


[^13]WEERLY RATES OF WAGE, ETC.-Continued.

| Industry and Occupation. | Sydney. | Melb. | Brisbane. | Adelaide. | Perth. |
| :---: | :---: | :---: | :---: | :---: | :---: |

Group III.-FOOD, DRINK, TOBACCO, ETC.-Continued.


[^14]WEEKLY RATES OF WAGE, ETC.-Continued.


Group IV.-Clothing, Hats, Boots, etc.

| Bootmaking. Bootmakers |  |  | S. 66 | $\begin{gathered} \mathrm{d} . \\ 0 \end{gathered}$ |  |  |  | d. |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Dyeing and Cleaning. |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | to 60 | 0 |  |  |  |  |  |  |  |  |  |  |
| Dyers (Black) ... ... | * 70 | 0 | 55 | 0 | $\ldots$ |  | $\ldots$ |  | $\cdots$ |  |  |  |
| ," (Colour) ... | *70 | 0 | 55 | 0 | $\ldots$ |  | ... |  |  |  |  |  |
| Dye-house Labourers | * 45 | 0 | 45 | 0 | ... |  | $\ldots$ |  |  |  |  | $\cdots$ |
| Hatmaking (Straw). |  |  |  |  |  |  |  |  |  |  |  |  |
| Bleachers | $\cdots$ |  | 50 | 0 | $\ldots$ |  | $\cdots$ |  |  |  |  |  |
| Blockers | ${ }^{10} 55$ | 7 | 56 | 0 | ... |  | ... |  |  |  |  |  |
| Foremen ... ... ${ }^{10}$ | ${ }^{10} 60$ | 0 | 63 | 0 | ... |  | $\ldots$ |  |  |  |  |  |
| Stiffeners | ${ }^{10} 55$ | 7 | 56 | 0 | $\ldots$ |  | $\ldots$ |  |  |  |  |  |
| Tailoring ( $\mathrm{Order}_{\text {c }}$. |  |  |  |  |  |  |  |  |  |  |  |  |
| Cutters ... | 75 | 0 | 75 | 0 | 70 | 0 | 70 | 0 | 70 | 0 | * 7 | 0 |
| Pressers ... | 64 | 0 | 60 | 0 | 52 | 6 |  | 0 | 60 | 0 | 6 | 0 |
| Tailors | 64 | 0 | 65 | 0 | 55 | 0 |  | 0 | 70 | 0 | 6 | 0 |
|  |  |  |  |  |  | - |  |  |  |  | \& 70 | 0 |
| Trimmers... | 65 | 0 | 57 | 6 | 50 | 0 | 51 | 0 | $\ldots$ |  | 6 | 0 |
| Tailoring (Ready-made). |  |  |  |  |  |  |  |  |  |  |  |  |
| Brushers ... | 54 | 0 | 50 | 0 | 42 | 6 | 36 | 0 |  |  | 50 | 0 |
| Cutters ... | 65 | 0 | 65 | 0 | 57 | 6 |  | 0 |  | 0 | 65 | 0 |
| Folders ... | 54 | 0 | 50 | 0 | 42 | 6 |  | 0 | ... |  | 50 | 0 |
| Machinists |  |  | 60 | 0 | 50 | . 0 |  | 0 |  | 0 | 60 | 0 |
| Pressers (Coat Hands) | 64 | 0 | 60 | 0 | 52 | 6 |  | 0 |  |  | 55 | 0 |
| , (Trouser \& Vest Hands) | 64 | 0 | 60 | 0 | 52 | 6 |  | 0 |  |  | \& 57 | 6 |
| " (Trouser \& Vest Hands) |  |  |  |  |  |  |  | 0 |  |  | 55 +57 | 0 |
| Tailors ... | 60 | 0 | 65 | 0 | 65 | 0 |  | 0 |  |  | - 65 | 0 |

[^15]WEEKLY RATES OF WAGE, ETC.-Continuéd.


Group V.-Books, Printing, Binding, etc.


[^16]WEEKLY RATES OF WAGE, ETC.-Continued.

Industry and Oocupation.
Sydney.

Melb. Brisbane
Adelaide
Perth
Hobart.
; Group V.-Books, Printing, Binding, etc.-Continued.


CURRENT RATES OF WAGE, EPC.
1083
WEEKLY RATES OF WAGE, ErC.-Continued.

| Industry and Occupation. | Sydneyt $\mid$ Melb. | Brisbane. Adelaide, Perth.. | Hobart. |
| :---: | :---: | :---: | :---: | :---: |

Group VI.-Other Manufactures.


WEEKLY RATES OF WAGE, ETC.-Continuea.


[^17]WEEKLY RATES OF WAGE, ETC.-Continued.

| Industry and Occupation. | Sydney. | Melb. | Brisbane. | Adelaide. | Perth. | Hobart. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Group Vi.-Other Manufactures-Continued. |  |  |  |  |  |  |
| Gas Making and Supply (cont.) | s. d. | s. d: | s. d. | s. d. | s. d. | s. d. |
| Service Layers ... | 67.6 | 59.0 | $\begin{array}{r}10 \\ \hline 1\end{array}$ | *66 0 | 69 0 | 580 |
| " $\quad$ (Labourers) ... | 616 | 576 | ${ }^{10} 523$ | 154 | $60 \quad 0$ | 540 |
| Stokers | 736 | 680 | ${ }^{2879} 4$ | 28826 | $69 \quad 0$ | 646 |
|  |  | \& 696 |  |  | \& 766 |  |
| Yardmen ... | 616 | 560 | ${ }^{10} 496$ | 540 | 570 | 526 |
| - 54 |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
| Bottjestoppers ... ... | 57 | 570 | ... |  | $\cdots$ | ... |
| Furnacemen ... ... | ${ }^{28} 666$ | 666 | ... | ${ }^{21} 63$ 0* | ... | ... |
| (Assistant) | ${ }^{28} 596$ | 596 | ... | $\ldots$ | ... | ... |
| Labourers ... | 510 | 510 | ... | 52 0* | ... | ... |
| Lehrmen | 51.3 | 51 | ... | ${ }^{12} a 540$ | ... | ... |
| Packers | $54 \quad 0$ | 510 | $\ldots$ | 60 0* | $\ldots$ | ... |
| Sorters | 540 | 540 | $\ldots$ | 52 0* | ... | ... |
|  |  |  |  |  |  |  |
| Beveiliers | 730 | 626 | ... | $56 \quad 0$ | ... | $60 \quad 0$ |
|  | \& 740 |  |  |  |  |  |
| Cementers | *40 0 | 480 | ... | 360 | ... | $\ldots$ |
|  | to 500 |  | $\ldots$ |  | , | $\ldots$ |
| Cutters and Glaziers (Other)... | 720 | 540 | $\ldots$ | $48 \quad 0$ | ... | $\ldots$ |
| , ', (Plate)... | 720 | 626 | ... | 56 | $\ldots$ | ... |
| Lead Light Glaziers ... | 730 | 540 | -.. | 56 0 | $\ldots$ | $\ldots$ |
| Packers ... ... ... | *60 0 | 530 | ... | 48 0 | $\cdots$ | $\cdots$ |
| Silverers (using Own Recipe) | 760 | 62 | $\ldots$ | $60 \quad 0$ | $\ldots$ | ... |
| ., (Others) ... ... | 760 | 626 | $\ldots$ | 56 | $\ldots$ | ... |
| Horsehair Working. |  |  |  |  |  |  |
| Curlers | *60 0 |  | $\cdots$ | ... | ... | $\ldots$ |
| Drafting Hands ... | * 60 0 | $60 \quad 0$ | $\ldots$ | ... | $\ldots$ | ... |
| Wet Hacklers and Others ... | *50 0 | 526 | ... | ... | ... | ... |
|  | to60 0 |  |  |  |  |  |
| Jowellery, Clock and Watch Making. |  |  |  |  |  |  |
| Chainmakers | 650 | 576 | * 600 | 60 0 | * 70 | * $60 \quad 0$ |
| Engravers ... | 70 | 650 | * 600 | 60 0 | * 70 | * 60 0 |
| Mounters | 650 | 60 0 | *60 0 | 60 0 | *70 0 | *60 0 |
| Setters ... | $70 \quad 0$ | 650 | *60 0 | 60 0 | * 70 | * 60 0 |
| Watch and Clock Makers | 11750 | 1170 | *60 0 | 60 0 | *70 0 | * 60 |
| ,, -" Repairers... | ${ }^{1175} 0$ | ${ }^{11} 700$ | *60 0 | 60 0 | *70 0 | *60 0 |
| Leather (Small Goods). |  |  |  |  |  |  |
| Foremen ... |  | 660 | ... | ... | $\ldots$ |  |
| General Hands | *66 0 | 66 D | ... |  | $\ldots$ |  |
| Manures (Animal). |  | - |  |  |  |  |
| Fertiliser Hands . | 540 | 540 | $56 \quad 6$ | ... | $\cdots$ | $\ldots$ |
| Manures (Artificial). |  |  |  |  |  |  |
| Acid Retortmen. ... | 610 | 630 | ... | -630 | 600 | ... |
| Bagging Men ... | 580 | $60 \quad 0$ | ... | $60 \quad 0$ | 540 |  |
| Bin Workers | 640 | 600 | ... | 60 0 | 570 |  |
| Bone Mill Feeders ... |  | 600 |  | 60 0 | 570 |  |
| Chamber Burners ... | 660 | 630 |  | 63 0 | 60 |  |
| - Crushers and Mixers ... | 60 60 | 630 |  | 630 | 570 |  |
| Labourers ... ... | to 66 <br> 60 <br> 0 | $60 \quad 0$ |  | $60 \quad 0$ | 540 | ... |

WEEKLY RAṪES OF WAGE. ETC.-Continued.


WEEKLY RATES OF WAGE, ETC.-Continued.


WEEKLY RATES OF WAGE, ETC.-Continued.


[^18] night shifts equivalent to time and a quarter daily rates for each occupation.

WEEKLY RATES OF WAGE, ETC.-Continùed.


GROUP VII.-BUILDING.


[^19]WEEKLY RATES OF WAGE, ETC.-Continued.

| Industry and Occupation. | Sydney. | Melb. | Brisbane | Adelaide. | Perth. | Hobert. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |

Group VII.-Building-Continued.


Group VIII.-Mining.

$\ddagger$ The rates of wage quoted are those awarded by the War Precautions Coal Board. The rates came into force on the 1st January, 1917. The tribunal increased the existing hewing rate for miners and all customary rates paid to them by 15 per cent. The existing rates of pay for off-hand labour were increased 20 per cent. The hours of labour for coal miners in the Commonwealth were fixed by the tribunal, as follows:-Eight hours bank to bank, inclusive of one half hour for meal time, on Monday, Tuesday, Wednesday, Thursday and Friday, and six hours bank to bank, inclusive of one balf-hour for meal time on Saturday, Sundays and holidays. The customary number of shifts per fortnight is eleven, the collieries not working on pay Saturdey.

See also explanatory notes on page 1070.

WEEKLY RATES OF WAGE, ETC.-Continued.

| Industry and Occupation. | N.s.W. | Victoria. | Q'land. | Sth. Aust. | W. Aust. |
| :--- | :--- | :--- | :--- | :--- | :--- |

Group ViIf.-MINING-Continued:


[^20]WEEKLY RATES OF WAGE, ETG.-Continued.

| Industry and Occupation. | Sydney. | Melb. | Brisbane. | Adelaide. | Perth. | Hobart. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |

Group VIII.-Mining-Continued.


Group IX.-Railway and Tramway Transport.


## $\dagger$ Contract work.

$\ddagger$ The hours of labour for Railway Employees are 48 per week (in N.S.W. 96 per fortnight) except in the following cases:-Victoria-Porters, 54 hours per week; South austrainaPorters and Signalmen, 48 to 57 hours per week: and Tasmania-Guards, Porters, Shunters, and Signalmen, 54 hours per week. Owing to the difference in the classification of grades of Railway Employees in the various States, only minimum and maximum rates are quoted, excluding those for Foremen. $\$$ In N.S.W. the rates of wage for 1st class Locomotive Drivers correspond to those fixed for Drivers driving express passenger or mail trains; 2nd to 5 th class correspond to the rates of wage fixed for different lengths of service. The classification of Locomotive Drivers and Firemen employed in the Victorian Railway Service fixes different rates of wage for the following grades of service:-(1) Country Passenger Service; (2) First-grade Suburban Passenger Service; (3) Second-grade Passenger Service; and (4) Goods or Switching Service. The rates of wage for these services have been taken as corresponding to the 185 , 2 nd , 3rd, and 4 th class classification in the other States, with the exception that firemen for only three classes of service sare graded. See also explanatory notes on page 1070.

WEEKLY RATES OF WAGE, ETC.-Continued.

| Indastry and Occupation, | Sydney. | Melb. | Brisbane. | Adelaide. | Perth. | Hobart. |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |

## Group IX.-Railway and Tramway Transport-Continued.



[^21]WEEKLY RATES OF WAGE, ETC.-Continued.

| Industry and Occupation. | Sydney. | Melb. | Brisbane. | Adelaide. | Perth. | Hobart. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Group X.-Other Land Transport. |  |  |  |  |  |  |
| Carrying (Merchandise). <br> Carriers (One Horse) <br> ., (Two Horses) <br> ," (Three Horses) <br> Corporation Carters- <br> (One Horse) <br> (Two Horses) ... | s. d. | s. d. | s. d. | s. d. |  | s. d. |
|  | ${ }^{49} 5800$ | ${ }^{21} 550$ | 28550 | 1750 | 540 | ${ }^{25} 470$ |
|  | ${ }^{49} 6300$ | ${ }^{21} 600$ | ${ }^{28} 606$ | 17520 | $60 \quad 0$ | ${ }^{25} 520$ |
|  | ${ }^{49} 6700$ | ${ }^{2163} 0$ | ${ }^{28} 626$ | ${ }^{17} 530$ | ... | ... |
|  | $57 \quad 0$ | ${ }^{21} 550$ | 556 | 500 | 60 0 | 470 |
|  | , | ${ }^{21} 60$ | 556 | 520 | $66 \quad 0$ | 520 |
| Jinkers (One Horse) <br> ,, (Two Horses) |  |  | \& 576 |  |  |  |
|  | ${ }^{28} 540$ | ${ }^{2 \times} 500$ | ${ }^{28} 550$ | ${ }^{17} 50$ | 650 | ${ }^{25} 530$ |
|  | ${ }^{28} 590$ | ${ }^{21} 650$ | ${ }^{56} 60$ | ${ }^{17} 520$ | 650 | ${ }^{25} 580$ |
| Sanitary Carters ... | 620 | ${ }^{2 \perp} 550$ | ${ }^{25} 62 \quad 6$ | ... | 720 | 520 |
| Stable Hands | ${ }^{29} 576$ | 25550 |  | 19550 |  | \& 570 |
|  | \& 626 | 55 | $\cdots$ | -55 0 | $\cdots$ |  |
| Tip Dray Drivers | ${ }^{29} 56$ 862 0 | ${ }^{21} 54$ | $\cdots$ | $\cdots$ | $60 \quad 0$ | 52 8 857 |
|  |  |  |  |  |  |  |
| Under 3 tons carrying capacity | $18620 a$ | $60 \quad 08$ | $60 \quad 0$ | 570 | $\cdots$ | 520 |
|  | to 710 |  | to 70 |  |  |  |
| 3 tons carrying capacity. | ${ }^{1875} 00$ | 65 에 | $70 \quad 0$ | 570 | ... | 550 |
| Carrying (Passenger). Bus or Coach Drivers (Horse) |  |  |  |  |  |  |
|  | $\ldots$ | ${ }^{2557} 0$ | $\cdots$ | 540 | ... | ${ }^{30} 420$ |
| Chauffeurs | ${ }^{5745} 0$ | 33550 | 2860 |  |  | \& 470 |
|  |  |  |  |  | $\cdots$ |  |
| Lift Attendants. |  |  |  |  |  |  |
| Goods -... | ${ }^{17} 762$ | ${ }^{17} 480$ | ${ }^{1745} 0$ | 50 0* |  | ${ }^{38} 450{ }^{\text {* }}$ |
| Passenger... | ${ }^{17} 526$ | ${ }^{31} 450$ | ... | ${ }^{25} 50$ 0* | ... | ${ }^{33} 450{ }^{*}$ |

Group XI:-Shipping, Wharf Labour, etc.


[^22] $\$$ Orer 25 cwt . carrying capacity. See also explanatory notes on page 1070.

WEEKLY RATES OF WAGE, ETC.-Continued.

| Industry and Occupation. | Sydney. | Melb. | Brisbane. | Adelaide. | Perth. | Hobart. |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |

Group XI.-Shipeing, Wharf Labour, etc.-Continued.


| Marine Engineers. $\dagger \ddagger$ |  |  |
| :--- | :--- | :--- |
| Chiof | $\cdots$ | per month |
| Second | $\cdots$ | $"$ |
| Third | $\cdots$ | $"$ |
| Founth | $\ldots$ |  |
| 5 th, 6 th, 7 th, | 8 th | $"$ |

$\begin{array}{ccc}\text { Merchant Service. } \dagger \| & \\ \text { Masters } & \text { per month } \\ \text { Officers, Chief } & \ldots & \text {... }\end{array}$
" Second $\quad$ ".

Lowest Class. Under 100 N.H.P.

Highest Class. 600 or more N.H.P. s.

| s. | d. | s. |
| :---: | :---: | :---: |
| 506 | 0 | 782 |
| 402 | 6 | 506 |
| 356 | 6 | 414 |
| $\ldots$ | 345 |  |

INTERSTATE CARGO VESSELS.
Passenger Vessels. Lowest Highest Class, 125 Class, over tons \& under. 10,000 tons. tons \& under. 4000 tons. $\begin{array}{cccc}460 \mathrm{~s} . & 1360 \mathrm{~s} . & 380 \mathrm{~s} . & 780 \mathrm{~s} . \\ 360 \mathrm{~s} . & 520 \mathrm{~s} . & 300 \mathrm{~s} . & 420 \mathrm{~s} . \\ 300 \mathrm{~s} . & 460 \mathrm{~s} . & 260 \mathrm{~s} . & 360 \mathrm{~s} . \\ \ldots & 400 \mathrm{~s} . & \cdots & 320 \mathrm{~s} . \\ \ldots & 260 \mathrm{~s} . & \cdots & 260 \mathrm{~s} .\end{array}$

[^23]WEERLY RATES OF WAGE, ETC.-Continued.

$\$$ Rates of wage quoted are in addition to board and lodging provided.
Note.-Except where otherwise specified the rates of wages specified for Employees in Clubs, Hotels, and Restaurants represent the weekly cash payment where Board and Lodging are provided. If Board and Lodging are not provided, payment has to be made, in lieu thereof, upon an estimated value, fixed by Industrial Tribunals for the Capital Towns as follows: Sydney, 15s. and 18s.; Melbourne, 14 s. : Brisbane, 15 s .; Adelaide, 15 s .; Perth, $22 \mathrm{~s} . ;$ and Hobart, 15 s . per week. Of this sum 10s. per week is allocated as value of Board in each instance.


[^24]WEEKLY RATES OF WAGE, ETC-Continued.

Industry and Occupation. | Sydney. | Melb. | Brisbane. | Adelaide. | Perth. |
| :---: | :---: | :---: | :---: | :---: |

Group XIII.-DOMEStIC, Hotels, etc.-Continued.


Groúp XIV.-Miscellaneoús and General Labour.

| Bill Posting. <br> Billposters |  |  |  |  |  |  | ${ }_{*}^{\text {* }}$ 48 | d. |  |  | * ${ }_{\text {* }}$ 50 | d. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Factory Engine Driving. Engine Drivers (Stationary) |  |  |  |  |  |  |  |  |  |  |  |  |
| 2nd class | 70 | 0 | 66 | 0 | 74 | 0 | ${ }_{*}^{*} 66$ | 0 | 72 66 |  | *63 | 0 |
| 3rd class | 65 | 0 | 57 | 0 | 66 | 0 | ${ }^{*} 60$ | 0 | 60 | 0 | *57 | 0 |
| Firemen (1st Class) | 63 | 0 | 60 | 0 | 64 | 0 | * 66 | 0 | * 60 | 0 | *54 | 0 |
|  | \& 67 | 0 |  |  |  |  |  |  |  |  |  |  |
| ,, (2nd Class) | 59 | 0 | 57 | 0 |  |  | * 60 | 0 |  |  | * 51 | 0 |
| Greasers ... | 59 | 0 | 54 | 0 | 64 | 0 | * 54 | 0 |  | 0 | * 42 | 0 |
| Trimmers... | 59 | 0 | 54 | 0 | 58 | 0 | * 54 | 0 | *54 | 0 | *45 | 0 |
| Fuel Distribution (Coal \& Cole). <br> Baggers and Loaders |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 59 | 0 | 64 | 0 |  |  | 48 | 0 |  |  | *54 | 0 |
| Carters (One Horse) | 59 |  | 1955 $\& 56$ |  | ${ }^{3157}$ | 6 | 48 | 0 |  | 0 | ${ }^{19} 47$ | 0 |
| , ${ }^{\text {(Two Horses) }}$ |  |  | 1960 $1 \& 61$ |  | ${ }^{31} 62$ | 6 | 50 | 0 | 60 | 0 | ${ }^{19} 52$ | 0 |
| Trimmers... | . 59 | 0 |  |  | .. |  | 48 | 0 |  |  | * 54 | 0 |

[^25]WEEKIY RATES OF WAGE, ETC.-Continued.

| Industry and Occupation. | Sydney. | Melb. | Brisbane. | Adelaide. | Perth. | Hobarf. |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |

Group XIV.-Miscellaneous and General Labour-Continued.


WEEKLY RATES OF WAGE, ETC.-Continued.


MINIMUM RATES OF WAGE FOR ADULT FEMALE WORKERS IN THE MAIN
OCCUPATIONS IN THE CAPITAL TOWN OF EACH STATE FOR A FULL WEEK'S WORK, AT 31st DECEMBER, 1916.

| Industry and Occupation. | Sydney. | Melb. | Brisbane. | Adelaide. | Perth. | Hobart. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Group III.-Food, Drink, Tobacco, etc. |  |  |  |  |  |  |
| Biscuitmaking ... | $\begin{array}{ll} \hline \text { s. } & \text { d. } \\ 23 & 0 \end{array}$ | $\begin{array}{ll} \mathrm{B} & \mathrm{~d} . \\ 25 & 0 \end{array}$ | $\left\|\begin{array}{cc}\text { s. } & \text { d. } \\ \text { 25 } & 0 \\ \text { to } 30 & 0\end{array}\right\|$ | s. ${ }_{\text {c. }}$ | d. ${ }^{\text {a }}$ d. | ${ }^{\text {s. }}$. ${ }^{\text {d. }}$. |
| Buttermaking |  | 300 |  |  | $\ldots$ |  |
| Cheesemaking |  | $30 \quad 0$ |  |  |  |  |
| Confectionery-Chocolate Dippers | 240 | 220 | 220 |  | $\begin{array}{rr}20 & 0 \\ \text { to } 22 & 6\end{array}$ | ... |
| " Other Adults .. | 20 to 24 | $20 \quad 0$ | $20 \quad 0$ | 210 | to $\begin{array}{r}20 \\ \text { to }\end{array}$ | ... |
| Jam Making and PreservingFillers <br> Other Adults ... | 25 0 | 316 $25 \quad 0$ | * $17 \quad 6$ * 176 | $\begin{array}{ll} 25 & 0 \\ 25 & 0 \end{array}$ | \| $\ldots$ | $\begin{array}{ll} 27 & 0 \\ 22 & 6 \end{array}$ |

WEEKLY RATES OF WAGE, ETC.-Continued.


WEEKLY RATES OF WAGE, ETC.-Continued.

| Industry and Occupation. | Sydney. | Melb. | Brisbane. | Adelaide. | Perth. | Hobart. |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |

Groups I., II., V. and VI.-Printing and Other Manufactures.


[^26]WEEKLY RATES OF WAGE, ETC.-Continued.


## Group XIII.-Domestic, Hotels, etc.

Note.-Except where otherwise specified the rates of wage inentioned herein for Employees in Hotels and Restaurants represent the weekly cash payment where Board and Lodging are provided. If Board and Lrodging are not provided, payment has to be made in lieu thereof, upon an estimated value, fixed by Industrial Tribunals for the Capital Towns as follows: Sydney, 15s.; Melbourne, 14s.; Brisbane, 15s.; Adelaide, 15s.; Perth, 22s.; and Hobart, 15s. per week. Of this sum 10s. per week is allocated as value of Board in each instance.



+ Not in addition to Board and Lodging. † Brisbane rates from 29th January, 1917.
See also explanatory notes on page 1070.


## § 6. Industrial Disputes.

1. General. - Information with regard to the collection of particulars and methods of tabulation of industrial disputes has appeared in previous issues of the Year Book, and is also given in the Annual Reports of the Labour and Industrial Branch of this Bureaú.

In the following tabulations particulars are included only with respect to the industrial disputes which commenced during any calendar year. $\ddagger$ This course requires the elimination of such data as relate to disputes which commenced during an earlier

[^27]period, but which remained unsettled during some portion of the succeeding year. On the other hand it necessitates the inclusion of the number of working days and wages lost during the following year in connection with disputes commenced during the calendar year to which the statistios relate.
2. Comparative Summary of Disputes in 1913 to 1916 . -The systematic collection of information as to industrial disputes throughout the Commonwealth was first undertaken as from the 1st January, 1913, and particulars concerning disputés occurring during the year 1913 were published in Labour Report No. 5. The following table gives particulars of the number of industrial disputes which began in the years 1913, 1914, 1915, and 1916 respectively, together with the number of workpeople involved, the number of working days lost, and the total estimated loss in wages in each State and Territory comprising the Commonwealth:-

INDUSTRIAL DISPUTES IN EACH STATE AND TERRITORY.-COMPARATIVE PARTICULARS FOR 1913 to 1916.

| State or Territory. | Year. | No. of Disputes. | Estab-lishmentsInvolvedinDisputes. | No. of Workpeople Involved. |  |  | No. of Working Days Lost. | Total Estimated Loss in Wages. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Directly. | $\underset{\text { directly. }}{\text { In. }}$ | Total. |  |  |
| N. S. Wales | 1513 | 134 | - 466 | 25,647 | 14,364 | 40,011 | 468,957 | - 216 |
|  | 1914 | 235 | 908 | 33,955 | 22,326 | 56,281 | 836,948 | 419,656 |
|  | 1915 | 272 | 694 | 47.006 | 22,608 | 69,614. | 464,343 | 240,322 |
|  | 1916 | 336 | 717 | 91,762 | 31,638 | 123,400 | 1,145,222 | 674,064 |
| Victoria | 1913 | - 29 | 63 | 4,151 | 2,026 | 6,177 | 85,212 | 35,744 |
|  | 1914 | 44 | 164 | 5,699 | 1,352 | 7,051 | 84,106 | 39,619 |
|  | 1915 | 33 | $\cdot 154$ | 5,434 | 809 | 6,243 | 64,878 | 28.476 |
|  | 1916 | 55 | 449 | 13.576 | 2,092 | 15,668 | 228,269 | 114,683 |
| Queensland | 1913 | 17 | 20 | 1,781 | 225 | 2,006 | 55,288 | 28,374 |
|  | 1914 | 18 | 49 | 1.280 | 406 | 1,686 | 25,703 | 11,747 |
|  | 1915 | 17 | 39 | 1,477 | 589 | 2,066 | 19934 | 9,505 |
|  | 1916 | 64 | 258 | 17,367. | 2,951 | 20,318 | 170,690 | 96,976 |
| South Australia | 1913 | 9 | 13 | 278. | 16 | 288 | 2,412 | 1,029 |
|  | 1914 | 13 | 45 | 616. | 575 | 1,191 | 15,275 | 1,677 |
|  | 1915 | 15 | 25 | 1,314 | 169 | 1,483 | 19.877 | 14,442 |
|  | 1916 | 21 | 45 | 1,037 | 605 | 1,643 | 10,583 | 6,004 |
| W. Australia | 1913 | 9 | 324 | 967 |  | 967 | 6,772 | 3,51.5 |
|  | 1914 | 18 | 19 | 1,117 | 30.292 | 4.409 | 124,175 | 70,552 |
|  | 1915 | 6 | 20 | 578 | 68 | 646 | 4,068 | 2,294 |
|  | 1916 | 24 | 35 | 4,318 | 4,782 | 9.100 | 102,357 | 64,325 |
| Tasmania | 1913 | 8 | 30 | 444 | 20 | 464 | 987 | 434 |
|  | 1914 | 6 | 22 | 588 | 25 | 313 | 3,286 | 1,459 |
|  | 1915 | 9 | 2 | 922 |  | 922 | 4,808 | 2,174 |
|  | 19.6 | 6 | 36 | 366 | 68 | 434 | 21.389 | 11,207 |
| Fed. Cap. Terr.... | 1913 | 1 | 1 | 100 | 100 | 200 | 1,400 | 600 |
|  | 1914 | 1 | 1 | 50 | 00 | 50 | 350 | 170 |
|  | 1915 | 1 |  | 20 | $\ldots$ | 20 | 80 | 55 |
|  | 1916 | ... | ... | ... | ... | ... | ... |  |
| Nth. Territory ... $\{$ | 1913 | 1 | 4 | 131 | 39 | 170 | 2,500 | 1,675 |
|  | 1914 | 7 | 2 | 68 |  | 68 | 552 | 348 |
|  | 1915 | 7 | 7 | 254 | 44 | 298 | 5,237 | 2,365 |
|  | 1916 | 2 | 2 | 120 |  | 120 | 420 | 345 |
| Commonweeith |  | 308 | 921 | 33,493 | 16.790 | 50,283 | 623,528 | 287.739 |
|  | 1914 | 337 | 1,203 | 43,073 | 27,976 | 71,049 | 1,090,395 | 551,228 |
|  | 1915 | 358 | 942 | 67,005 | 24,287 | 81,292 | 583,225 | 299,633 |
|  | 1916 | 508 | +1,536 | 128,546 | 48,137 | 170,683 | 1,678,930 | 907,604 |

[^28]precludes any direct comparison of the results for the year 1914 with either the preceding or the succeeding year.

In November, 1916, employees in the coal-mining industry in New South Wales, Victoria, Queensland and Tasmania, were again involved in a dispute which was responsible for approximately 24 per cent. of the total loss in working days caused by disputes commenced during that year.

It may be seen, however, from the foregoing table that industrial disputes throughout the Commonwealth were more frequent during 1916 than during any of the three preceding years. In point of magnitude, i.e., average number of persons involved in each dispute, the disputes which occurred during the year 1914 averaged 211 persons involved, whereas those which occurred during 1915 and 1916 averaged 227 and 336 persons involved respectively.

The number of workpeople involved increased considerably during the year 1916, while the losses in working days and wages were considerably in excess of such losses during any previous yearly period. It must be mentioned, however, that the figures for 1914 and 1916 include particulars of abnormal disputes which occurred in the coal mining industry during these years.

The prevalence of industrial disputes in New South Wales as compared with the other States is best expressed in percentage of the aggregates recorded for all States and Territories. Thus the disputes in New South Wales represented no less than 70 percent. in 1914, 76 per cent., in 1915 and 66 per cent. in 1916. The disputes in Victoriar equalled 13, 11 and 11 per cent., and Queensland 5,5 and 13 per cent. of the total industrial disputes in the respective years. In the remaining States and Territories the numbers form but a small proportion of the aggregate.

The position which New South Wales occupies in comparison with the other States is practically wholly due to the prevalence of disputes in connection with coal mining. Apart from these the number of disputes in all other industries, whilst still in excess of that for each of the other States, does not compare unfavourably when the number of workpeople in each State is taken into consideration.
3. Number and Magnitude of Industrial Disputes in the Commonwealth, Classified according to Industrial Groups.-Comparative Particulars for 1915 and 1916.-The following table gives particulars of disputes in the Commonwealth during the years 1915 and 1916, classified according to industrial groups. The system of classification selected is similar to that adopted in connection with labour organisations, unemployment, rates of wage, etc. (see Report No. 5, Labour and Industrial Branch, page 6).

## INDUSTRIAL DISPUTES IN THE COMMONWEALTH, CLASSIFIED ACCORDING TO INDUSTRIAL GROUPS, 1915 and 1916.

| Industrial Group. | No. of Disputes. |  | No. of Workpeople involved in Disputes. |  | No. of Working Days Lost. |  | Total <br> Estimated Loss in Wages. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1915. | 1916. | 1915. | 1916. | 1915. | 1916. | 1915. | 1916. |
| I. Wood, Furniture,Timber,etc. | 7 | 4 | 620 | 117 | 14,382 | 1,398 | $\underset{7,444}{ }$ | ${ }_{8}^{805}$ |
| II. Engineering, Metal Wks., etc. | 23 | 33 | 3,016 | 6,251 | 35,983 | 312,968 | 19,314 | 162,005 |
| III. Food, Drink, etc. ... ... | 14 | 26 | 3,756 | 5,128 | 31,312 | 55,416 | 10,881 | 26,951 |
| IV. Clothing, Hats, Boots, etc. ... | 2 | 4 | 565 | 194 | 8.742 | 1,156 | 2,315 | 391 |
| V. Books, Printing, etc. |  |  |  |  |  |  |  |  |
| VI. Other Manufacturing | 21 | 32 | 7,223 | 3,792 | 38,950 | 40,462 | 18,803 | 24,818 |
| VII. Building $\therefore \therefore$... | 8 | 15 | 301 | 751 | 801 | 25,053 | 462 | 13,707 |
| VIII. Mines, Quarries, etc. | 204 | 240 | 54,315 | 95,512 | 357.757 | 920,105 | 192,948 | 570,278 |
| IX. Rail and Tramway Services | 33 | 40 | 5,731 | 5,067 | 44,982 | 70,865 | 25,871 | 33,934 |
| X. Other Land Transport . | 7 | 5 | 474 | 214 | 2.453 | 2,563 | 1,130 | 1,241 |
| XI. Shipping, Wharf Lsbour | 14 | 40 | 2,345 | 4.065 | 13,550 | 29,851 | 6,243 | 15,907 |
| XII. Pastoral, Agricultural, etc. | 4 | 16 | , 213 | 3,062 | 1,611 | 75,063 | 683 | 40,814 |
| XIII. Domestic, Hotel, etc. | 2 | 1 | 94 | 36 | 4.553 | 720 | 1,354 | 200 |
| XIV. Miscellaneous ... | 19 | 52 | 2,639 | 46,474 | 28,149 | 143,310 | 12,183 | 76,553 |
| Commonwealth, All Groups | 358 | 508 | 81,292 | 70.683 | 583,225 | 1678,930 | 299.633 | 967,604 |

Comparison as to the frequency of industrial disputes in classified industries can only be reasonably made after omitting those which are recorded for mining，quarrying， etc．（Group VIII．）．For the year 1914 the proportion of disputes in those industries represented practically 55 per cent．of the total number recorded．During the year 1915 this proportion rose to 57 per cent．and in 1916 the percentage was 47 ．Attention has frequently been drawn to the preponderating influence contributed in this direction by the coal－mining industry in New South Wales．In making any comparison as to the number of disputes in this industrial class in each State，it should be observed that the number of workers engaged in the mining industry is very much larger in New South Wales than in any of the other States．The number of disputes recorded are，however， in excess of a similar proportion．

4．Industrial Disputes，Classified as to Causes and Results．－The following table shews the number of disputes，number of workpeople involved，and the total number of working days lost in disputes which commenced in＇a State or Territory of the Common－ wealth during the years 1914，1915，and 1916，classified according to principal cause and result ：－
industrial disputes，classified according to causes and results．

| Particulars． | No．of Disputes． |  |  | No．of Workpeople in－ volved in Disputes． |  |  |  | Total No．of Working Days Lost by Disputes． |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | \％ |  | $\begin{aligned} & \text { 畐 } \\ & \text { 范 } \\ & \text { 芯 } \end{aligned}$ |  |  | 宫号 | 总 |  | 莫 |  |  |

1914. 



INDUSTRIAL DISPUTES, CLASSIFIED ACCORDING TO• CAUSES AND RESULTS—Continued.

| Particulars, | No. of Disputes. |  |  |  | No. of Workpeople involved in Dispute. |  |  |  | Total No. of Working Days Lost by Disputes. |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | \|ris |  |  |  |  |  | 官号 |  |  |  |  | ¢ <br> $\pm$ <br> ¢ <br> O <br> \# |

1915. 

| Wages- |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| (a) For increase | 44 | 15 | 9 | 5 | 13,879 | 1.452 | 2,238 | 1,224 | 142,321 | 30,283 | * 16,613 | 1,428 |
| (b) Against decrease ... | 4 | $\cdots$ | 6 | $\ldots$ | 525 | $\ldots$ | 588 | 1,224 ... | 14,32 4,230 | 30,283 $\therefore$. | 8,613 8.325 | 1,128 |
| (c) Other wage |  |  |  |  |  |  |  |  |  |  |  |  |
| questions ... | 24 | 9 | 12 | 1 | 5,431 | 2,835 | 3,696 | 28 | 41,483 | 31,862 | 60,233 | 28. |
| Hours of Labour- <br> (a) For reduction | 2 | $\ldots$ | ... | 1 | 522 | ... |  | 374 | 462 |  |  | 374 |
| (b) Other disputes |  |  |  |  |  | ... | ... |  | 1 | ... | $\cdots$ |  |
| Trade $\begin{aligned} & \text { Ue hours } \\ & \text { nionism } \cdots\end{aligned}$ | 1 | 2 | 2 | 1 | 50 | 510 | 583 | 1,500 | 12 | 510 | 3,352 | 19,500. |
| (a) Against em- |  |  |  |  |  |  |  |  |  |  |  |  |
| ployment of |  |  |  |  | - |  |  |  |  |  |  |  |
| non-unionists | 15 | 3 | 1 | $\cdots$ | 3,521 | 330 | 22 | . $\cdot$ | 7,503 | 23,422 | 220 |  |
| (b) Other union |  |  |  |  |  |  |  |  |  |  |  |  |
|  | 8 | 2 | 6 | $\cdots$ | 1,335 | 301 | 2,103 | $\ldots$ | 1,703 | 325 | 5,406 |  |
| Employment of |  |  |  |  |  |  |  |  |  |  |  |  |
| $\therefore$ particular <br> classes of |  |  |  |  |  |  |  |  |  |  |  |  |
| persons ... | 39 | 21 | 13 | 3 | 6,542 | 3,397 | 2,856 | 1,089 | 16,425 | 24,287 | 32,375 | 4,775 |
| Working conditions | 42 | 16 | 16 | 2 | 9,667 | 3,968 | 2,359 | 120 | 24,756 | 34,551 | 20,175 | 840 |
| Sympathy ... | 2 | 2 |  | 2 | 259 | 305 |  | 386 | 3,386 | 1,460 |  | 1,158 |
| Other causes | 9 | 8 | 3 | 7 | 2,409 | 2,229 | 415 | 2,294 | 3,344 | 8,959 | 2,845 | 2,294 |
| Total | 190 | 78 | 68 | 22 | 44,140 | 15,327 | 14,860 | 6,965 | 245,625 | 155,659 | 151,544 | 30,397 |

1916. 



In the above table it will be seen that 223 of the 508 disputes, recorded during the year 1916, were classified as terminating in favour of the workpeople involved; 178 in favour of the employers; while 84 resulted in a compromise. In New South Wales the results as between employers and employees were practically equal; in the other States, with the exception of Victoria, the greater proportion of the disputes resulted in favour of the employees. In Victoria, however, the results were in favour of the employers, 25 disputes being classified as ending in favour of the employers, as against 17 in favour of the employees.

## § 7.-Retail Prices, House Rents, and Cost of Living.

1. Introduction:-In Report No. 1, issued in December, 1912, the results of certain investigations into the subjects of Prices, Price-Indexes and Cost of Living in past years were published, and some account was given of the methods employed for the collection of the data and of the technique adopted in the computation of the results. An important discussion of the theory apon which the calculation of the index-numbers is based was given, but being necessarily too technical for the ordinary reader, was relegated to Appendixes. In Reports Nos. 2, 5, 6 and 7, results of further investigations were given, and in those Reports, and in Labour Bulletins Nos. 1 to 16, information was given as to variations in retail and wholesale prices, house-rent, and purchasing-power of money up to the end of 1916.

It must here suffice to state that the method adopted for the computation of the index-numbers is what may very properly be called the "aggregate expenditure" method. The first process is, of course, to work out the average price of each commodity included, and numbers (called "mass-units") representing the relative extent to which each commodity was on the average used or consumed are then computed. The price in any year of each commodity multiplied by its corresponding "mass-unit" represents, therefore, the relative total expenditure on that commodity in that year on the basis of the adopted regimen. It, follows, therefore, that by taking for any year the sum of the price of each commodity multiplied by its corresponding "mass-unit," a figure is obtained which represents the relative aggregate or total expenditure of the community in that year on all the commodities, etc., included. By computing these aggregate expenditures for a series of years and taking the expenditure in any desired year as "base," that is, making the expenditure in that year equal to 1000 units, the relative expenditure in any -other year, that is to say, the "index-numbers," are readily ascertained. A numerical example of the technique and methods adopted for the computation of index-numbers was given in Report No. 2 (pp. 44 and 45).
2. Scope of Investigation.-It was pointed out in Report No. 1, that, in any investigation into the question of change in cost of living of a community, a carefuldistinction must be drawn between two things, viz: 一,
(a) Variations in the purchasing-power of money, and
(b) Variations in the standard of living.

In Report No. 2, attention was drawn to the fact that the second element (b) can be limited, at any rate to some extent, by the exercise of self denial and thrift, and that such
limitation is at the disposal of each individual ; the former ( $a$ ) is not subject to this possibility. Thus, from this aspect, social economics are concerned primarily with an accurate estimation of variations in the purchasing-power of money and only secondarily with the question of the general standard of living which has been reached. The first desideratum demands that we shall select a suitable list of commodities, the quantities of each being taken in due proportion to their relative average consumption, and, keeping this list with the quantities constant, ascertain what it costs to purchase the whole group. In this way we can compare the cost in different areas or districts at the same time, as well as the variation in any one place from time to time. This is the "aggregate expenditure" method explained above.

As explained in Report No. 1, special steps were taken to conduct the investigation back as far as 1901 for the capital towns only. The collection of current monthly returns as to prices and of quarterly returns of house rents commenced in thirty of the more important towns of the Commonwealth in January, 1912.
3. Commodities and Requirements Included.-The 47 items of expenditure included are divided into four groups, viz.:-(i.) groceries and bread, (ii.) dairy produce, (iii.) meat, and (iv.) house rent. These items cover about 60 per cent. of the total expenditure of a normal family. There are very cogent reasons for the restriction of the enquiries to the items mentioned. If the comparisons made are to be satisfactory, no confusion must arise between changes in the standard of living and changes arising from a variation of the purchasing-power of money. In order to avoid such confusion the items selected are such as are sensibly identical and identifiable in the various localities. The most important group of expenditure which is not included is clothing, the cost of which amounts to about 13 per cent. of the total expenditure. Owing to influences of individual taste, fashion, and the enormous variety of production, articles included in this group are practically not comparable and identifiable. As regards fuel and light, the cost of which amounts to about 4 per cent. of the total expenditure, while these commodities are comparable and identifiable, the usage or relative consumption in the towns included in the inquiries varies to such an extent that their inclusion on an assumed constant regimen would tend to produce a fictitious result in so far as variations in the purohasingpower of money are concerned.

In Report No. 7 (page 356), a tabular statement was given furnishing particulars of the commoditios and items included, the units of measurement for which prices are collected, and the mass-units shewing the relative extent to which each item is used or consumed.
4. Variations in the Purchasing-Power of Money in each Metropolitan Town, 1901 to 1916.-In Reports Nos. 1, 2, 5, 6 and 7, and Labour Bulletins Nos. 1 to 16, indexnumbers were given for each of the four groups, and for all groups combined, for each capital town since 1901, the expenditure in 1911 being taken in each case as base $(=1000)$. In this section only summarised results are given. Firstly, for food and groceries; secondly, for house rent; and thirdly, for all groups combined-the weighted average expenditure for all capital towns in 1911 being taken in each case as base $(=1000)$. The index-numbers in each table are fully comparable with each other, that is to say, they shew not only the variations from year to year in each capital town, but also the relative cost as between the towns.
(i.) Food and Groceries. The index-numbers thus computed for the three groups comprising groceries and food are shewn in the following table:-

## RETALL PRICES IN METROPOLITAN TOWNS.-INDEX-NUMBERS FOR GROCERIES AND FOOD (GROUPS I., II. AND III.), 1901 and 1905 to 1916.

| Town. | 1901. | 1905. | 1906. | 1907. | 1908. | 1909. | 1910. | 1911. | 1912. | 1913. | 1914. | 1915. | 1916. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Sydney | 917 | 972 | 964 | 936 | 1,030 | 1,012 | 1,000 | 989 | 1,124 | 1,131 | 1,156 | 1,396 | 1,520 |
| Melbourne | 965 | 952 | 945 | 925 | 995 | 949 | 960 | 935 | 1,082 | 1,024 | 1,091 | 1,411 | 1,462 |
| Brisbane | 965 | 945 | 959 | 947 | 1,023 | 983 | 1,000 | 1,018 | 1,102. | 1,042 | 1,078 | 1,373 | 1,426 |
| Adelaide.. | 1,028 | 993 | 982 | 951 | 1,010 | 1,025 | 1,001 | 1,020 | 1,154 | 1,119 | 1,215 | 1,487 | 1,532 |
| Perth | 1,184 | 1,258 | 1,237 | 1,197 | 1,226 | 1,212 | 1,251 | 1,346 | 1,345 | 1,267 | 1,302 | 1,483 | 1,542 |
| Hobart | 1,011 | 1,030 | 1,047 | 1,010 | 1,055 | 1,093 | 1,073 | 1,058 | 1,190 | 1,164 | 1,212 | 1,445 | 1,523. |
| Weighted Average* | 972 | 986 | 980 | 955 | 1;031 | -1,006 | 1,005 | 1,000 | 1,129 | 1,095 | 1,144 | 1,416 | 1,495 |

* For all capital towns.

The above figures are directly comparable in every respect; thus it will be seen that the same quantity of food and groceries, which cost $£ 1000$ in the capital towns considered as a whole in 1911, would have cost $£ 917$ in Sydney in 1901, £1346 in Perth in 1911, or £1462 in Melbourne in 1916.
(ii.) House Rent. - In the following table, index-numbers are given computed for the weighted average house rent in each of the capital towns from 1901 to 1916, taking the average rent for the six capital towns in 1911 as the base $(=1000)$. The average rent has been obtained for each town separately by multiplying the average predominant rent for each class of house (i.e., houses having less than 4 rooms, 4 rooms, 5 rooms, 6 rooms, 7 rooms, and over 7 rooms) by a number ("weight") representing the relative number of houses of that class in the particular town. The sum of the products thus obtained, -divided by the sum of the weights, gives the weighted average for all houses. Tha number of houses in each class for each town was obtained from the results of the 1911 census. It should be observed, therefore, that these index-numbers are based on the weighted average rents for all houses, and that they do not refer to any particular class of houses. The actual predominant rents for each class were given in appendixes to Reports Nos. 1, 2, 5, 6 and 7, and an examination of these figures shews that for some classes of houses the increase has been greater, and in some less, than the general increase indicated in the following table:-

## house rents in metropolitan towns.-INDEX-NUMBERS SHEWING WEIGHTED AVERAGE RENTS (GROUP IV.), 1901 and 1905 to 1916.

| Town. | 1901. | 1905. | 1906. | 1907. | 1908. | 1909. | 1910. | 1911. | 1912. | 1913. | 1914. | 1915. | 1916. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Sydney ... | 858 | 887 | 891 | 911 | 922 | 955 | 988 | 1,090 | 1,183 | 1,246 | 1,279 | 1,220 | 1.212 |
| Melbourne | 733 | 771 | 788 | 804 | 828 | 842 | 916 | 970 | 1,016 | 1,089 | 1,126 | 1,085 | 1,089 |
| Brisbane | 488 | 519 | 524 | 575 | 616 | 662 | 700 | 767 | 804 | 863 | 882 | 859 | . 847 |
| Adelaide | 629 | 702 | 761 | 812 | 872 | 940 | 1,018 | 1,112 | 1,160 | 1,125 | 1,040 | 932 | 930 |
| Perth - ... | 801 | 739 | 716 | 684 | 678 | 667 | 696 | 810 | 880 | 928 | 914 | 848 | 869 |
| Hobart ... | 667 | 681 | 686 | 708 | 727 | 749 | $776^{*}$ | 805 | 829 | 887 | 914 | 928 | 928 |
| Weighted Average* | 751 | 782 | 793 | . 816 | 839 | 867 | 919 | 1,000 | 1.063 | 1,218 | 1,135 | 1,081 | :1,081 |
|  |  |  |  | . 816 |  |  | 019 | 1,000 | 1,083 | 1,218 | 1,135 | 1,081 | . 1,081 |

* For all capital towns.

Note.-The above figures are directly comparable in every respect.
It may be seen that, except in Adelaide, where rents remained constant from 1901 to 1904, and in Perth, whers they decreased from 1903 to 1909 , there was a uniform increase in each metropolitan-town from 1901 to 1914. The increase was greater in

Adelaide (where the average rent in 1901 was only 629, compared with 1112 in 1911, and 1125 in 1913), and in Brisbane than in the other towns. It should be observed, however, that at the commencement of the period, rents were exceptionally low in Brisbane, and were comparatively low in Adelaide (see Appendix IV. to Report No. 1). The index-numbers for Perth presents features entirely different from those for the other towns; the fall in rents commencing in 1903 and lasting until 1907, is followed, after another temporary decline in 1909, by a rapid rise. In 1914 rents fell slightly in Adelaide and Perth, but rose in the other towns. During 1915, there was a decrease in house rents in all the capital towns except Hobart, and in 1916 rents increased slightly in Melbourne and Perth, and decreased slightly in Sydney, Brisbane, and Adelaide. The index-number for Hobart was the same in 1916 as in 1915.
(iii.) Food, Groceries, and House Rent combined. The weighted averages for all four groups are of importance, as indicating the general results of this investigation sofar as the purchasing-power of money is concerned. The following table shews the index-numbers for groceries, food, and house rent for each metropolitan town, the weighted average cost for the six capital towns in 1911 being taken as base $(=1000)$ :-

## PURCHASING-POWER OF MONEY IN METROPOLITAN TOWNS.-INDEX-NUMBERS SHEWING WEIGHTED aVERAGE RESULTS FOR ALL GROUPS (GROCERIES, DAIRY PRODUCE, MEAT, AND HOUSE RENT), 1901 and 1905 to 1916.

| Town. | 1901. | 1905. | 1906. | 1907. | 1908. | 1909. | 1910. | 1911. | 1912. | 1913. | 1914. | 1915. | 1916. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Sydney | 893 | 937 | 934 | 926 | 986 | 989 | 995 | 1,031 | 1,148 | 1,178 | 1,206 | 1,323 | 1,394 |
| Melbourne | 870 | 878 | 878 | 875 | 926 | 905 | 942 | 950 | 1,055 | 1,051 | 1,105 | 1,277 | 1,309 |
| Brisbane | 769 | 770 | 780 | 794 | 856 | 851 | 877 | 915 | 979 | 969 | 997 | 1,162 | 1,188 |
| Adelaide | 864 | 873 | 891 | 894 | 953 | 990 | 1,008 | 1,058 | 1,157 | 1,121 | 1,143 | 1,259 | 1,285 |
| Perth | 1,027 | 1,045 | 1,023 | 986 | 1,001 | 988 | 1,023 | 1,126 | 1,154 | 1,128 | 1,143 | 1,222 | 1,266 |
| Hobart | 869 | 886 | 899 | 886 | 920 | 952 | 951 | 954 | 1,042 | 1,050 | 1,090 | 1,233 | 1,278 |
| Weighted Average* | 880 | 901 | 902 | 897 | 951 | 948 | 970 | 1,000 | 1,101 | 1,104 | 1,140 | 1,278 | 1,324 |

* For all capital towns.

Nore.-The above figures are directly comparable in every respect.

Generally speaking, prices were low in 1904, high in 1902 and 1908, and rose steadily each year since 1909. The general trend of the index-numbers for Perth is different from that for the other towns, owing mainly to the decline in house rents in that place, which occurred from 1903 to 1907, and again in 1909.

The general result for all the six towns shews that the index-number was only 0.3 per cent. higher in 1913 than in 1912. The index-number for 1914 was 3.3 per cent. higher than for 1913. There was a further increase in 1915 in each of the towns, the weighted average index-number shewing an increase of 12.1 per cent. compared with 1914. There was a further increase in each of the towns in 1916, the weighted average index-number for 1916 shewing an increase of 3.6 per cent. compared with the year 1915.
5. Relative Cost of Food, Groceries, and House Rent in Different Towns, 1916.The index-numbers given in the preceding paragraphs shew changes in the cost of food, groceries, and house rent separately for each capital town during the years 1901 to 1916. The figures given in the table below shew the relative cost of food, groceries, and houserent in 1916 in the thirty towns for which particulars are now being collected. The weighted aggregate expenditure for the six capital towns for the year 1911 bas been taken tas base and made equal to 1000 , hence the columns are comparable both horizontally and vertically.

## 1916.-INDEX-NUMBERS, SHEWING RELATIVE COST IN EACH OF THIRTY TOWNS, OF FOOD AND GROCERIES AND HOUSE RENT (INCLUDING 4, 5, AND 6 roomed houses, and all houses), compared with weighted average expenditure - ON GROCERIES, FOOD, AṄD RENT IN THE SIX CAPITAL TOWNS IN 1911 AS BASE ( $=1000$ ).

| Town. |  | House Rent. |  |  |  | Food, Groceries, and Rent, including Houses having- |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 4-r'm'd Houses only. | 5.r'm'd Houses only. | 6-r'm'd Houses only. | All Houses Weightd Average | $\stackrel{4}{\text { Rooms. }}$ | $\stackrel{5}{5}$ | $\stackrel{6}{\text { Rooms. }}$ | All Houses Weighta Average |
| N. S. Wales- | 895 | 387 | 472 | 540 | 499 | 1,282 | 1,365 | 1.435 | 1,394 |
| Newcastle | 888 | 244 | 331 | 412 | 320 | 1,132 | 1,219 | 1,300 | 1,208 |
| Broken Hill ${ }^{*}$... | 1,066 | 194 | 257 | 306 | 216 | 1,260 | 1,323 | 1,372 | 1,282 |
| Goulburn | 902 | 316 | 407 | 506 | 448 | 1,218 | 1,309 | 1,408 | 1,350 |
| Bathurst | 864 | 211 | 285 | 378 | 314 | 1,075 | 1,149 | - 1,242 | 1,178 |
| Weighted Average | 901 | 364 | 448 | 517 | 469 | 1,265 | 1,349 | 1,418 | 1,370 |
| Victoria- |  |  |  |  |  |  |  |  |  |
| Melboturne | 861 | 316 | 409 | 506 | 448 | 1,178 | 1.270 | 1,367 | 1,309 ${ }^{\circ}$ |
| Ballarat | 864. | 143 | 204 | 308 | 262 | 1,007 | 1,068 | 1,172 | 1,126 |
| Bendigo... 1! | 856 | 168 | 225 | 321 | 262 | 1,024 | 1,081 | 1,177 | 1,118 |
| Geelong... ... | 862 | 221 | 326 | 423 | 371 | 1,083 | 1,188 | 1,285 | 1,233 |
| Warrnambool ... | 863 | 233 | 305 | 369 | 322 | 1,096 | 1,168 | 1,232 | 1,185 |
| Weighted Average | 861 | 290 | 378 | 475 | 418 | 1,151 | 1,239 | 1,336 | 1,279 |
| Queensland- <br> Brisbane | 840 | 225 | 294 | 378 | 348 | 1,065 | 1,134 | 1,218 | 1,188 |
| Toowoomba | 843 | 181 | - 230 | 278 | 290 | 1,024 | 1,073 | 1,221 | 1,133 |
| Rockhampton | 901 | 197 | 253 | 328 | 315 | 1,098 | 1,154 | 1,229 | 1,216 |
| Charters Towers | 943 | 192 | 254 | 300 | 240 | 1;134 | 1,196 | 1,242 | 1,152 |
| Warwick | 838 | 148 | 220 | 277 | 264 | 986 | 1,058 | 1,115 | 1,102 |
| Weighted Average | 855 | 212 | 278 | 354 | 327 | 1,067 | 1,133 | 1,209 | 1,182 |
| irioonta, etc. | 933 | 176 | 230 | 360 | 971 | 1,109 | 1,213 | 1,293 | 11,204 |
| Port Pirie** | 945 | 275 | 334 | 389 | 316 | 1,220 | 1,279. | 1,334 | 1,261 |
| Mt. Gambier | 364 | 216 | 274 | 367 | 301 | 1,080 | 1,138 | 1;231 | 1,165 |
| Petersburg ... | 938 | 237 | 316 | 369 | 313 | 1,175 | 1,254 | 1,307 | 1,251 |
| Weighted Average | 905 | 281 | 369 | 452 | 370 | 1,186 | 1.274 | 1,357 | 1,275 |
| W. Australia - |  |  |  |  |  |  |  |  |  |
|  | 909 1,074 |  | 370 | 456 525 | 357 344 | 1,210 | 1,279 1,518 | 1,365. |  |
| Kalgoorlie, etc. ... | 1,074 | 351 | 444 318 | 585 382 | 344 301 | 1,425 | 1,518 | 1,599 | 1,418 1,226 |
| Bunbury ... | 981 | 221 | 269 | 331 | 233 | 1,202 | 1,250 | 1,312 | 1,214 |
| Geraldton | 973 | 364 | 474 | 570 | 399 | 1,337 | 1,447. | 1,543 | 1,372 |
| Weighted Average | 947 | 308 | 383 | 466 | 350 | 1,255 | 1,330 | 1,413 | 1,297 |
| Tagmania- |  |  |  |  |  |  |  |  |  |
| Hobart ... | 897 | 301 | 361 | 437 | 381 | 1,198 | 1,258 | 1,334 | 1,278 |
| Launceston | 886 | 257 | 353 | 419 | 367 | 1,143 | 1,239 | 1,305 | 1,253 |
| Zeehan . | 973 | 129 | 164 | 201 | 122 | 1,102 | 1,137 | 1,174 | 1.095 |
| Beaconstield | 949 | 72 | 85 | 105 | 85 | 1,021 | 1,034 | 1,054 | 1,034 |
| Queenstown | 978 | 296 | 342 | 375 | 282 | 1,274 | 1,320 | 1,353 | 1,260 |
| Weighted Average | 905 | 269 | 336 | 403 | 346 | 1,174 | 1,241 | 1,307 | 1,251 |
| Commonwealth Weighted Average ... | 887 | 308 | - 391 | 472 | 414 | 1,105 | 1,278 | 1,359 | 1,301 |

* See remarks on page 367 of Labour Report No. 7, with reference to House Rents.

6. Variation in Purchasing-Power of Money, 1901 to 1916.-The tables in paragraph 4 give the relative cost of food, groceries, and house rént in the six capital towns from 1901 to 1916 in the form of index-numbers. In the following tables similar information is given as regards variations in cost of food, groceries, and house rent, the base being taken as 20 s . for the weighted average in the six capital towns in 1911 . The figures therefore shew the sums which would have to be paid in each town and in each year in order to purchase such relative quantities (indioated by the mass-units) of the several commodities, and to pay such sums for house-rent as would in the aggregate cost £1, according to the weighted average prices and rents in the six capital towns,in 1911.

PURCHASING-POWER OF MONEY.-AMOUNT NECESSARY ON THE AVERAGE IN EACH YEAR FROM 1901 TO 1916 TO PURCHASE IN EACH CAPITAL TOWN What would have cost on the average fi in 1911 in the australian Capitals regarded as a whole.

|  | Year. | Sydney. | Melb'ne. | Brisbane. | Adelaide. | Perth. | Hobart. | Weighted Average of 6 Capital Towns |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | s. d. | s. d. | s. d. | s. d. | s. d. | s. d. | s. d. |
| 1901 | ... ... | $17 \quad 10$ | $17 \quad 5$ | $15 \quad 5$ | 17 3 | 206 | $17 \quad 5$ | $17 \quad 7$ |
| 1902 | ... ... | 197 | $18 \quad 1$ | 160 | $17 \quad 3$ | 217 | 1710 | $18 \quad 7$ |
| 1903 |  | 192 | $17 \quad 7$ | 159 | 169 | 218 | 1711 | 182 |
| 1904 | $\cdots$ | $17 \quad 5$ | $17 \quad 1$ | 148 | 163 | $20 \quad 10$ | $17 \quad 1$ | $17 \quad 2$ |
| 1905 | $\ldots$ | 189 | $17 \quad 7$ | 155 | 176 | $20 \quad 11$ | $17 \quad 9$ | 180 |
| 1906 | ... ... | 18 8 | $17 \quad 7$ | 157 | 1710 | 205 | 180 | 18 0 |
| 1907 | . | 186 | 176 | 1511 | 1711 | $19 \quad 9$ | 179 | 1711 |
| 1908 | ... ... | $19 \quad 9$ | 18 6 | 171 | 19 I | $20 \quad 0$ | 185 | 190 |
| 1909 | ... ... | 199 | 181 | 170 | 1910 | $19 \quad 9$ | 190 | 190 |
| 1910 | ... ... | $19 \quad 11$ | 1810 | 176 | $20 \quad 2$ | 206 | 190 | 195 |
| 1911 | .. ... | $20 \quad 7$ | 190 | 184 | $21 \quad 2$ | 226 | 19 1 | 20 0* |
| 1912 |  | 2211 | 211 | 197 | $23 \quad 2$ | 231 | $20 \quad 10$ | 22 0 |
| 1913 | $\cdots$ | 237 | 210 | 195 | 225 | 226 | 21 1 | 221 |
| 1914 | $\cdots$ | $24 \quad 1$ | $22 \quad 1$ | $19 \quad 11$ | $22 \quad 10$ | $22 \quad 10$ | 2110 | 2210 |
| 1915 |  | $26 \quad 6$ | $25 \quad 6$ | 23 3 | $25 \quad 2$ | $24 \quad 5$ | 248 | $25 \quad 7$ |
| 1916 |  | 2710 | $26 \quad 2$ | 239 | $25 \quad 8$ | 254 | 25 7 | 266 |
|  | 1stQuarter | $28 \quad 4$ | 269 | $25 \quad 2$ | $25 \quad 11$ | 2410 | $26 \quad 4$ | $27 \quad 0$ |
| 1916 | 2nd | $27 \quad 10$ | $26 \quad 5$ | $24 \quad 1$ | $26 \quad 2$ | 257 | $25 \quad 11$ | $26 \quad 8$ |
| 1916 | 3rd | $27 \quad 9$ | $26 \quad 0$ | $22 \quad 11$ | 257 | 259 | $25 \quad 2$ | $26 \quad 4$ |
|  | 4th ,, | 276 | $25 \quad 7$ | 2210 | $25 \quad 2$ | 251 | 2410 | 260 |

* Basis of Table.
(i.) Groceries and Food only. The following table has been computed in the same manner as that indicated above, but relates to groceries and food ( 46 items) only. The average expenditure for the six capital towns in 1911 has again been taken as the basis of the table ( $=20$ shillings) and the figures are, of course, comparable throughout.
PURCHASING-POWER OF MONEY.- GROCERIES AND FOOD ONLY.- AMOUNT NECESSARY ON THE AVERAGE IN EACH YEAR FROM 1901 TO 1916 to PURChase in each capital town what would have cost on the average f1 IN 1911 IN. THE aUSTRALIAN Capitals REGARDED aS a Whole.

|  | Year. | Sydney. | Melb'ne. | Brisbane. | Adelaide. | Perth. | Hobart. | Weighted Average of 6 Capital Towns |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | s. d. | s. d. | s. d . | s. d. | s. d. | s. d. | s. d. |
| 1901 | $\cdots$ | 184 | 194 | 194 | 207 | 23.8 | $20 \quad 3$ | 194 |
| 1902 | ... | 214 | 204 | 204 | 206 | 256 | 210 | 211 |
| 1903 |  | 207 | 196 | 19 g | 198 | 258 | 211 | 204 |
| 1904 | ... - .. | 176 | 184 | 1710 | 1810 | 243 | 198 | 185 |
| 1905 | ... ... | 195 | 191 | 1811 | 1910 | $25 \quad 2$ | 207 | 198 |
| 1906 | ... - | $19 \quad 3$ | 1811 | 192 | 19 8 | $24 \quad 9$ | 2011 | 197 |
| 1907 | $\ldots$ | 189 | 186 | 1811 | 190 | 2311 | $20 \quad 2$ | 191 |
| 1908 | ... .. | 207 | 1911 | 206 | 202 | 246 | 211 | 207 |
| 1909 | ... | 203 | 19 0 | 198 | 206 | 243 | 2110 | 201 |
| 1910 |  | $20 \quad 0$ | 192 | 200 | 200 | 250 | 216 | 201 |
| 1911 | $\ldots$ | $19 \quad 9$ | 188 | 204 | 205 | 2611 | 212 | 20 0* |
| 1912 | ... . | 226 | 218 | 220 | 231 | 2611 | 2310 | 221 |
| 1913 |  | 228 | 206 | 2010 | $22 \quad 5$ | 254 | 233 | 2111 |
| 1914 | $\cdots$ | 231 | 2110 | 217 | 24 | 260 | 243 | 2211 |
| 1915 | $\ldots$... | 2711 | 28 3 | 276 | 299 | 298 | 2811 | 284 |
| 1916 | ... ... | 305 | 293 | 286 | 308 | 3010 | 305 | 2911 |
|  | (1st Quarter | 314 | $30 \quad 2$ | 310 | 310 | 301 | 3110 | 3010 |
| 1916 | 2nd ", | 304 | 298 | 291 | 316 | 313 | 311 | $30 \quad 2$ |
|  | 3rd | 30 | 29 0 | $27 \quad 1$ | 305 | 317 | 299 | 297 |
|  | 4th ${ }^{\text {a }}$ | 298 | $28 \quad 2$ | 2610 | 298 | 305 | 291 | 2811 |

[^29](ii.) House Rent only. The following table gives similar particulars for house rent only, the average for the six capital towns in 1911 being again taken as the basis of the table ( $=20$ shillings).

## PURCHASING-POWER OF MONEY,-HOUSE RENT.-AMOUNT PAYABLE ON THE average in each year from 1901 to 1916 for house rent in each Capital town, compared with a rent of fl in 1911 in the austràlian capitals regarded as a whole.

|  | Year. | Sydney: | Melb'ne. | Brisbane. | Adelaide. | Perth. | Hobart. | Weighted Average of 6 Capital Towns |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | s. d. | s. d. | s. d. | s. d. | s. d. | s. d. | s. d. |
| 1901 | $\cdots$ | 17 3 | 148 | 99 | 127 | 160 | 134 | 15.1 |
| 1902 | ... | $17 \quad 3$ | 1411 | 910 | 127 | 1511 | 135 | 15-2 |
| - 1903 |  | 174 | 1411 | 101 | 127 | 160 | 136 | 153 |
| 1904 | ... $\quad$ - | $17 \quad 5$ | 15 3 | 102 | 12.7 | 160 | 136 | 154 |
| 1905 | ... | 1710 | $15 \quad 5$ | 105 | 140 | 149 | 137 | 158 |
| 1906 | ... | 1711 | 158 | 106 | $15 \quad 3$ | 144 | 139 | 1511 |
| -1907 | ... | 184 | 161 | 116 | $16 \quad 3$ | 138 | 142 | 164 |
| 1908 | ... ... | 18.7 | 167 | 12.4 | $17 \quad 5$ | 13, 7 | 14. 7 | 16.10 |
| 1909 | ... ... | 192 | 1610 | 13 | 1810 | 134 | 150 | 17.5 |
| 1910 | ... | 1910 | 184 | $14 \quad 0$ | 20.4 | 1311 | 156 | 185 |
| 1911 | ... ... | 2110 | 195 | 154 | 223 | 163 | 161 | 20 0* |
| 1912 |  | 238 | $20 \quad 4$ | 161 | $23-2$ | 17 | $16 \quad 7$ | 213 |
| 1913 |  | 2411 | 2110 | 17 | 226 | 187 | 1710 | 224 |
| 1914 | .. | 257 | 226 | 178 | 2010 | 18 3 | 18 3 | 228 |
| 1915 |  | 245 | 218 | $17 \quad 2$ | 188 | 17 0 | 187 | 217 |
| 1916 |  | 243 | 219 | 1740 | 18 7 | 17.4 | 18 7 | 217 |
|  | (1st Quarter | $24 \quad 2$ | 219 | 1610 | 18.7 | $17 \quad 5$ | 185 | 216 |
| 1916 | 2nd " | 24 3 | 218 | 1611 | $18 \quad 7$ | 17 | 186 | 217 |
| 1916 | 3rd | 243 | 21.9 | 17 0 | 187 |  | 187 | 217 |
|  | (4th ", | 243 | 2111 | 172 | 18.8 | 174 | 1810 | 218 |

- Basis of Table.

7. Monthly Fluctuations in Retail Prices of Food and Grocerles, July, 1914, to July, 1917.-The following table has been prepared in order to shew the variations in retail prices of food and groceries since July, 1914, the last month prior to the outbreak of war. Particulars for each town are given in the form of index-numbers for food and groceries in each of the months specified. In the last column the percentage increase or decrease is shewn for each town in July, 1917, compared with July, 1914.

The aggregate result for the thirty towns covered by the investigations shews that prices were 26.3 per cent. higher in July, 1917, than in July, 1914.

## RETAIL PRICES INDEX-NUMBERS (FOOD AND GROCERIES) FOR EACH OF THIRTY towns for the months specified, With weighted average for SIX CAPITAL TOWNS IN 1911 AS BASE ( $=1000$ ) $\ddagger$



[^30]1 See Remarks on page 31 of Labour Report No. 6 . with reference to change of base period.
Note.-Corresponding index-numbers for the intervening months are given in Labour Report No. 6, pp. 33 to 35, and in Labour Bulletins 13. 14, 15 and 16.



## §8. Investigation into Purchasing-Power of Money in 150 Towns in Commonwealth.

1. Introduction.-In order to supplement the information as to variations in the purchasing-power of money, which is collected each month for the thirty towns specified in the preceding section, a special investigation was initiated in November, 1913, as to the purchasing-power of money in seventy additional towns in the Commonwealth. This investigation was repeated in November, 1914, November, 1915, and Kovember, 1916. At the two latter periods the number of additional towns from which returns are collected annually was increased to 120 . It is intended to carry it out in that month each year, thus making information available annually in all for 150 towns.
2. Map shewing relative Purchasing-Power of Money.-On the map on page 1115 each town is shewn by means of a number, the reference list at the side of the map indicating the town corresponding to each number and its relative index-numbers for the years 1913, 1914, 1915 and 1916. The figures in black type relate to the cost of food, groceries and rent of 5 -roomed heuses, while those in light type refer to food and' groceries only. A glance at the map shews that the distribution of the 150 towns selected is in close approximation to the density of population (indicated by hatching). The weighted average cost for 100 towns in 1913 is taken as base, and the index-numbers are comparable in all respects.

## § 9. Wholesale Prices.

1. General.-The results of an investigation into wholesale prices in Melbourne were given in some detail in Report No. 1, from 1871 to the end of September, 1912. In Report No. 2 summarised results were included for the whole of the latter year; in Report No. 5 those for the year 1913; in Report No. 6 those for the years 1914 and 1915, and in Report No. 7 those for the year 1916.

The index-numbers up to the year 1911 are based on the prices of eighty commodities, but since that year the number has been increased to ninety-two.* The methods followed for the computation of the wholesale price index-numbers are the same as those adopted in regard to retail prices. The commodities included, the units of measuremont for which the prices are taken, and tine mass-units, indicating the relative extent to which each commodity, in the units of measurement specified, is used or consumed, are shewn in a tabular statement in Report No. 7 (page 405).
2. Index-Numbers and Graphs.-Index-numbers have been computed for each group of commodities, as well as for all groups together. The index-numbers for the several groups, and for all groups together, are shewn in the following table.
(i.) Table of Index-numbers.-The index-numbers have in each case been computed with the prices in the year 1911 as base; that is to say, they shew the amount which would have had to be expended in each of the years specified in order to purchase what would have cost $£ 1000$ in 1911, distributed in purchasing the relative quantities (indicated by the mass-units), of the several commodities included in each group, and in all groups respectively. Thus, in the last column it may be seen that the cost of the relative quaptities of the various commodities was 1229 in 1871, and 974 in 1901, as compared with 1000 in 1911, 1170 in 1912, 1088 in 1913, 1149 in 1914, 1604 in 1915, and 1504 in 1916. In other words, prices were lower in 1911 than in either 1871, 1914, 1915, or 1916, and the purchasing-power of money in 1911 'was, accordingly, greater. Again, prices were lower in 1901 than in 1911, and the purchasing-power of money in the former year was, therefore, greater.

[^31]
## melbourne wholesale prices index-numbers, 1861 T0 1916 COMPUTED TO YEAR 1911 AS BASE.

| Year. | I. <br> Metals and Coal. | II. <br> Jute, Leather, \&c. | III. Agricultural Produce, \&c. | IV. <br> Dairy <br> Produce. | V. <br> Groceries. | VI. <br> Meat. | VII. <br> Building M8terials. | VIII. Chemicals. | All commodities together. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1861 | 1.438 | 1,381 | 1,583 | 1,008 | 1,963 | $\cdots$ | 1.070 | 2,030 | 1,638 |
| 1871 | 1,096 | 1,257 | 1,236 | 864 | 1,586 | $\ldots$ | 1,044 | 1,409 | 1,229 |
| 1881 | 1,178 | 1,115 | 1,018 | - 935 | 1,421 | ... | 1,091 | 1,587 | 1,181 |
| 1891 | 895 | 847 | 1,024 | 995 | 1,032 | 888 | 780 | 1,194 | 45 |
| 1901 | 1,061 | 774 | 928 | 1,029 | 1,048 | 1,345 | 841 | 917 | 974 |
| 1902 | 1,007 | 756 | 1,193 | 1,215 | 945 | 1,447 | 837 | 881 | 1,051 |
| 1903 | 923 | 834 | 1,209 | 1,059 | 936 | 1,443 | 875 | 921 | 1,048 |
| 1904 | 821 | 885 | 754 | 876 | 916 | 1,427 | 845 | 875 | 890 |
| 1905 | 772 | 850 | 894 | 980 | 942 | 1,209 | 801 | 859 | 910 |
| 1906 | 882 | 978 | 916 | 972 | 923 | 1,110 | 896 | 864 | 948 |
| 1907 | 1,037 | 1,017 | 973 | 1,020 | 948 | 1,294 | 968 | 961 | 1,021 |
| 1908 | 1,033 | 901 | 1.312 | 1,198 | 968 | 1,335 | 935 | 891 | 1,115 |
| 1909 | 1,014 | 907 | 1,000 | 1,119 | 978 | 1,068 | 911 | 815 | 988 |
| 1910 | 1,004 | 1,052 | 969 | 1,100 | 999 | 1,008 | 996 | 898 | 1,003 |
| 1011 | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 | 1,060 | 1,000 | 1.000 |
| 1912 | 1.021 | 991 | 1,370 | 1,206 | 1.052 | 1,357 | - 1,057 | 978 | 1,170 |
| 1913 | 1.046 | 1,070 | 1,097 | 1,054 | 1,024 | 1,252 | 1,128 | 995 | 1,088 |
| 1914 | 1.099 | 1,032 | 1.207 | 1,137 | 1,021 | 1,507 | 1,081 | 1.253 | 1,149 |
| 1915 | 1,284 | 1,017 | 2,162 | 1.530 | 1,133 | 2,435 | 1,275 | 1.528 | 1,604 |
| 1916 | 1,695 | 1.483 | 1,208 | 1,485 | 1,322 | 2,515 | 1,491 | 1,760 | 1,504 |

Note. - The figures given in this table are comparable in the vertical columns, but are not directly comparable horizontally. The index-numbers are reversible.
(ii.) Graphs.-The index-numbers are shewn for each group and for all groups combined in the graphs on page 1116. The heavy line, repeated on each graph, represents the index-numbers for the weighted average for all groups, and is shewn so that comparison may be made between the price levels for all commodities and those for the commodities comprised in each group separately. The index-numbers for the individual groups are represented by the light lines. .The broken lines at the commencement of each graph shew the index-numbers for the separate years 1861 and 1866, the continuous records commencing with the year 1871. The actual index-numbers for the whole period were given in Report No. 1.
3. Seasonal Fluctuations and Tables of Prices.-Information as to seasonal -fluctuations in wholesale prices was given in Report No. 2 (page 64) and tables of prices of each commodity were given in Appendixes to Reports Nos. 1, 2, 5, 6 and 7.
4. Fluctuations in Wholesale Prices, July, 1914, to March, 1917.—Since the outbreak of war, prices of many commodities have increased considerably. This is shewn in the following table in which the index-numbers are given for each group for the month of March, 1917, taking July, 1914, the last month before the outbreak of war, as base $(=1000)$ for each group :-
melbourne wholesale prices.-Variations between july, 1914, AND MARCH, 1917.

| Particulars. | I. Metals and Coal. | II. Jute, Leather, etc. | III. <br> Agricultural Produce, etc. | $\begin{gathered} \text { IV. } \\ \text { Dairy } \\ \text { Produce. } \end{gathered}$ | V. <br> Groceries | VI. <br> Meat. | VII. <br> Building <br> Mater. <br> ials. | VIII. <br> Chemicals. | All <br> Groups. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| July, 1914 | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 | 1,000 |
| March, 1917 | 1,659 | 1,587 | 1,052 | 1,180 | 1,293 | 1,600 | 1,501 | 1,756 | 1,344 |

It may be seen that there has been an aggregate increase in prices during the period specified of no less than 34.4 per cent. The greatest increase, 75.6 per cent., is recorded in Group VIII. (Chemicals), and the least, 5.2 per cent., in Group III. (Agricultural Produce, etc.).

## § io. Control of Trade and Prices during War.

1. General.-Shortly after the outbreak of war, a conference of Federal and State Ministers met to discuss the financial position and other matters, and it was decided that for the purpose of controlling the prices of foodstuffs, each State should introduce uniform legislation, since it was obvious that this was necessary in view of all the circumstances.

Particulars of the various Acts passed by the State Governments will be found in Labour Bưlletin No. 6; September, 1914, pages 132-147.

As a further outcome of this conference, in addition to the various State Boards and Commissions, a Federal Royal Commission, consisting of the Hon. Alfred Deakin (chairman), the Hon. Dugald Thomson, formerly Minister for Home Affairs, and Mr. G. H. Knibbs, C.M.G., Commonwealth Statistician, was appointed to collect information and report upon such matters as the supply of foodstuffs and other necessaries required by and available for Australia during the war; the amount then available and likely to be so for export, having due regard to the requirements of Australia; the development of fresh sources of supply; and any other important matters relating to conditions of trade and industry arising from the war. This commission ceased to exercise its functions after the 30th October, 1914.

There has been great diversity in regard to the operations of the various authorities created in the different States. In-New South Wales and Queensland prices have been fixed for a large number of commodities, whereas in Victoria only a comparatively few commodities were dealt with, and these only during the latter half of 1914 and early in 1915. In South Australia it was not until the latter part of 1915 that the Necessary Commodities Commission began to fix prices. In Western Australia the Food Stuffs Commission fixed the price of some commodities, and refused to sanction proposed advances in others. The commission was revoked in October, 1915. In Tasmania the Legislative Council rejected the Bill creating a Necessaries of Life Controil Bill, and consequently no action has been taken in that State to deal with prices of commodities in the manner adopted by the other States.
2. Federal Control of Prices.-In March, 1916, the Federal Government created a Prices Adjustment Doard with authority to fix the prices of flour, bread, bran, and pollard. The Board made investigations, and fixed the prices of flour, bran, and pollard in every milling centre of Australia. Prices of bread were fixed in upwards of 1000 separate towns, after investigations had been made as to the cost of manufacture, distribution, etc. An important judgment of the High Court, as to the powers of Government to fix prices, was obtained as the result of the conviction of a Melbourne suburban baker, by the local magistrate, for selling bread at a higher rate than that fixed by the Prices Adjustment Board. This conviction was appealed against, but the

- High Court, by a majority decision, affirmed that in matters affecting the safety of Australia the Government, under the War Precautions Act, had plenary powers, and that the decision as to what is necessary rests with the Executive and not with the * judicial authority.

After this judgment, the scope of the investigations and activities of the Prices Adjustment Board were considerably enlarged, and an exhaustive list of commodities were declared to be necessary commodities. Later, a Commissioner was appointed in each State to make investigations, and to make recommendations to the Minister as to the necessity for fixing maximum selling prices of various commodities.

Shortly after the appointment of these Commissioners, the members of the Prices Adjustment Board resigned in a body, and since then the control of prices has been in the hands of the Minister acfing upon the recommendations of the State Commissioners. The Commissioner for Victoria acts also as Chief Prices Commissioner. Prices have been fixed, by regulations under the War Precautions Act, for a large number of commodities.


[^0]:    Note.-The figures in the above table are comparable both horizontally and vertically. * Weighted average: see graph on page 1065 hereof. +The decrease in this, group is due to a reduction in the award rates in the Furniture trade resulting from an appeal made by employers.

[^1]:    * Weighted average.

[^2]:    * This expression must not be confused with "standard of living." A change in the standard of living necessarily involves a change in regimen (see Labour Report No. 1), that is, a change in the nature or in the relative quantity of commodities purchased, or both. A change in the "standard of comfort" merely implies a variation in effective wages, which variation may, or may not, result in, or be accompanied by, a change in the "standard of living."

[^3]:    * Since these forms are issued under the authority of the Census and Statistics Act 1905. it is compulsory upon prescribed persons to furnish the information required.

[^4]:    * Including two changes (common to all States) which resulted in an increase in wages of $£ 2938$ per week to 10,000 workpeople. The particulars relating to the numbers of workpeople who were affected and the net amount of increase per week in each state were not ascertainable.
    $\dagger$ Including six changes (common to all States), which resulted in an increase in wages of £1593 to 3546 workpeople. The particulars relating to the numbers of workpeople who were affected by these changes, and the net amount of increase per week in each State were not ascertainable.

    Included in the particulars contained in the foregoing table are those relating to seven decreases during the year 1915 and eight during the year 1916. The States in which these decreases were recorded were, in 1915: New South Wales two, Tasmania

    1. In each of the Quarterly Bulletins since the beginning of the year 1915 a summary is included, giving the following particulars with respect to each change in rate of wage:- (a) Locality, industry and occupations affected; (b) date from which change took effect; (c) approximate number of workpeople affected (male and female separately); (d) method by which change brought about; and ( $e$ ) brief information as to the extent of the change.
[^5]:    * Including effect of one change which affected nine female employees in the Northern Territory

[^6]:    * Including 300 workers in Group XII. (Fruit Harvesters). Amount of weekly increase $£ 120$.
    $\dagger$ Inclading 100 workers in Group XII. (Fruit Harvesters). Amount of weekly increase, £40.

[^7]:    * Weighted average. + Including the value of victualling and accommodation lestimated at 45s. per month) where supplied. § Including the value of Board and Lodging where supplied as follows:-In Sydney 15s. and 18s. according to the rates of wage, in Melbourne 14s., in Perth 22 s ., and in Brisbane, Adelaide, and Hobart 15s. $\ddagger$ Including the value of Board and Lodging where supplied as follows:-In the agricultural industry 14s. per week in Victoria, and 158. in the remaining States; in the pastoral industry, 19s. in New South Wales, 22s. in Queensland; 15s. in West Australia, and 17s. in Victoria. South Australia and Tasmania.

[^8]:    - Weighted average.

[^9]:    * Including the value of Board and Lodging (estimated at 15s. per week for Sydney, Brisbane, Adelaide, and Hobart, and 14 s . and 22 s . per week for Melbourne and Perth respectively), where supplied, in order that the results may be comparable with the rates paid in other industries. $t$ Weighted average.

[^10]:    $\ddagger$ Details with respect to particulars in industrial classes have been published as follows:-To 30th April, 1914 (Labour Report No. 5, pp. 49-50); to 31st March, 1915 (Labour Bulletin No. 9, pp. 72-3); to 30th June, 1915 (Labour Bulletin No. 10 , pp. 175-6); to 30th September, 1915 (Labour Bulletin No. 11, pp. 264-5) ; to 31st December, 1915 (LLabour Bulletin No. 12, pp. 413-4); to 31st March, 1916 (Labour Bulletin No. 13, pp. 81-2) ; to 30th June, 1916 (Labor Rulletin No. 14, pp. 189-90) ; to 30th September, 1916 (Labour Bulletin No. 15, pp. 299-300) : and to 31st December, 1916 (Labour Report No. 7, pp. 423-4). 8 In Sydney, Brisbane, Adelaide, and Hobart the value of board and lodging has been assessed by Awards and Determinations at 15s. per week. In Melbourne it has been determined by a Wages Board at 14s. per week and in Perth by the Court of Arbitration at 22s. per week. The value of victualling in ships has been assessed by the Commonwealth Arbitration Court at 45s. per month.

[^11]:    $\dagger$ Rates for Hobart are in addition to quarters. See also explanatory notes on page 1070.

[^12]:    + Melbourne rates from 18th January, 1917. See also explanatory notes on page 1070.

[^13]:    ! Brisbane rates from 1st January, 1917. See also explanatory notes on page 1070.

[^14]:    - Computed on the hourly rate for 48 hours. § Brisbane rates from 2nd January, 1917

[^15]:    Piecework rates.

[^16]:    $\ddagger$ Other than in news paper offices. Higher rates quoted for Sydney are paid in newspaper offices. S Sydney rates from 12th January, 1917; Brisbane rates from 29th January, 1917. See also explanatory notes on page 1070.

[^17]:    $\ddagger$ Brisbane rates from 8th January, $1917 . \ddagger$ Working hours per week for main and service layers and yardsmen are 44 in North Brisbane and 48 in South Brisbane.

    See also explanatory notes on page 1070.

[^18]:    + In Melbourne, the current Wages Board Determination provides weekly rates of wage for

[^19]:    $\ddagger$ The rates of wages quoted for Builders' Labourers for Sydney, Melbourne, and Adelaideare those payable under State Determinations or Awards. The rates quoted for Perth are the ruling or predominant rates, while those for Brisbane and Hobart are the rates fixed by the Award of the Commonwealth Arbitration Court, which also awarded the following:-Sydney. Melbourne, and Adelaide, 66 s . per week of 44 hours. See also explanatory notes on page 1070 .

[^20]:    $\dagger$ Piece-work rates. $\dagger \ddagger$ The number of working hours constituting a full week's work in Queensland have been fixed either by industrial agreement or award, as follows:-Mount Morgan and Cooktown, 48 hours; Gympie and Cloncurry, 44 hours. South Australian rates include a bonus, paid on a sliding scale regalated according to the price of copper, to workers engaged in copper mining. South Australian rates from the 1stJanuary, 1917. In Victoria the hours of labour in quartz mines for upderground workers are 44 per week. See also explanatory notes on page 1070 .

[^21]:    For Sydney the wages quoted are those determined by State Awards For Melbourne Perth, Adelaide, and Hobart the rates are those specified in agreements registered under the Commonwealth Conciliation and Arbitration, Act. For Brisbane rates recently agreed to are quoted. I In addition to the rates quoted, employees of the Tramway Board and the Northcote Council receive a bonus of 6d. per day. :t Sydney rates from 26th January, 1916.

[^22]:    $\ddagger$ Rate of wage quoted is for other than special cargo. \& Under 25 cFt . carrying capacity.

[^23]:    $\dagger$ Rates of wages quoted are in addition to victualling. $\ddagger$ Minimum rates under the Industrial Agreement are classified according to nominal horse-power of vessels; the lowest and highest classes are here specified. I| Minimum rates under the Commonwealth Award are classified for Interstate vessels, and for vessels within a State according to tonnage; the lowest and highest classes for Interstate passenger and cargo vessels are here given.

    See also explanatory notes on page 1070.

[^24]:    + Not in addition to Board and Lodging. See also explanatory notes on page 1070.

[^25]:    + Not in addition to Board and Lodging. See also explanatory notes on page iofo.

[^26]:    † Brisbane rates from 29th January, 1917. See also explanatory notes on page 1070.

[^27]:    : Any tabulations as to causes, duration, etc.. based on disputes which were in existence in any given year, and not on those which commenced in that year, would inevitably result in confusion, seeing thet particulars relating to the same dispute would probably occur in two successive years

[^28]:    + These figures do not include establishments affected by the anti-conscription stop-work meetings, as definite particulars as to the number of establishments were not ascertainable.

    During the year 1914 a very protracted dispute occurred in the Northern Colliery area" in New South Wales. The employees demanded the abolition of the afternoon shift, which involved 2930 workers in a loss of 522,967 working days, and an estimated loss of $£ 258,750$ in wages. It should be observed that a complete stoppage of work at the collieries did not occur, but the refusal of the miners and others to work the afternoon shift materially affected the output of coal. The presence of these abnormal figures

[^29]:    Basis of Table.

[^30]:    * Average for the five towns. + Average for thirty towns.

[^31]:    * In the computation of the index-numbers for years prior to 1911, the aggregate expenditure on 80 commodities in 1911 is taken as base ( $=1000$ ); while for later years the aggregate expenditure on 92 commodities is taken.

