SECTION XXXIII.

LABOUR AND INDUSTRIAL STATISTICS.

§ 1. Introductory.

1. General.—In Year Book No. 7 (pages 992-3), a résumé 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, this 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 1919.—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 year 1919 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. Attention should also 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 for skilled occupations. Thus the building and engineering industries are heavily represented in the returns, while such comparatively stable industries as railway services 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 1919 (4th QUARTER).

					Unem	ployed.		
	Par	rticulars			Unions.	Membership.	Number.	Percentage
1891	•••				25	6,445	599	9.3
1896					25	4,227	457	10.8
1901					39	8,710	574	6.6
1906					47	11,299	753	6.7
1907					51	13,179	757	5.7
1908					68	18,685	1,117	6.0
1909					84	21,122	1,223	5.8
1910					109	32,995	1,857	5.6
1911					160	67,961	3,171	4.7
1912					464	224,023	12,441	5.5
1913					465	251,207	13,430	5.3
1914					439	250,716	27,610	11.0
1915					465	273,149	18,489	6.8
1916					470	292,051	19,562	6.7
1917					459	296,937	21,989	7.4
1918					475	308,850	16,919	5.5
1919, 1	st Quarter				477	311,410	20,359	6.5
2	nd ,,				462	303,468	25,768	8.5
3:	rd ,,				457	308,287	19,262	6.2
4	th ,,				459	317,413	16,637	5.2

Note.—For years prior to 1919 the figures refer to the end of the year only; similar fixures for each of the four quarters of the years since 1912 will be found in the Labour and Industrial Reports. 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 lockouts.

The figures shew that the percentage of unemployment in the fourth quarter of 1919 (5.2 per cent.) was lower than in the same period of any other year shewn in the table except 1911, which closed with a proportion of unemployment of 4.7 per cent.

3. Unemployment in Different Industries, 1919.—The following table shews the percentages unemployed in several of the fourteen industrial groups. It may be observed that for those industries in which employment 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 OF YEAR 1919.

	Number	Reporting.	Unemployed.		
Industrial Group.	Unions.	Members.	Number.	Percentage	
I. Wood, Furniture, etc	20	19,255	1,173	6.1	
II. Engineering, Metal Works, etc.	61	40,464	2.250	5.6	
III. Food, Drink, Tobacco, etc	64	33,443	3,619	10.8	
IV. Clothing, Hats, Boots, etc	25	30,915	533	1.7	
V. Books, Printing, etc.	28	11,577	151	1.3	
VI. Other Manufacturing	75	29,434	1.126	3.8	
VII. Building	50	29,075	825	2.8	
VIII. Mining, Quarrying, etc	18	22,646	1,430	6.3	
X. Other Land Transport	14	11,112	289	2.6	
IX., XI., XII., XIII., and XIV., Other and Miscellaneous	104	89,492	5,241	5.9	
All Groups	459	317,413	16,637	5.2	

4. Unemployment in each State, 1919.—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 1061), 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, 1919.

				Number	Reporting.	Unem	ployed.
S	tate.			Unions.	Members.	Number.	Percentage.
New South Wales				131	142,264	7,170	5.0
Victoria				101	86,426	3,694	4.3
Queensland				53	38,843	3,286	8.5
South Australia				63	25,613	1,082	4.2
Western Australia				69	18,094	1,185	6.5
Tasmania	••	••		42	6,173	220	3.6
Commonwe	alth			459	317,413	16,637	5.2

§ 3. Current Rates of Wage in Different Occupations and States.

1. Minimum Rates of Wage.—The collection of material respecting the current rates of wage payable in different callings and in occupations in various industries carried on in each State of the Commonwealth was first undertaken by the Commonwealth Bureau of Census and Statistics in the early part of the year 1913. The particulars acquired were 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 is in force, particulars are given, where possible, of the ruling union or predominant rate as furnished by employers or secretaries of Trade Unions.

An extensive tabular presentation of the minimum rates of wage for adult male and female workers in the main occupations in the capital city of each State will be found in the Labour Report, No. 10. Space will not permit of the inclusion of the detailed tables in this volume.

2. Weighted Average Nominal Rate of Wage Payable to Adult Male Workers in each State, 31st December, 1919.—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 (=1,000), 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 3.948.

WEIGHTED AVERAGE NOMINAL WEEKLY RATE OF WAGE PAYABLE TO ADULT MALE WORKERS FOR A FULL WEEK'S WORK, AND WAGE INDEX-NUMBERS IN EACH STATE AND COMMONWEALTH, 31st DECEMBER, 1919.

Particulars.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	C'wealth.
Number of Occupations included Weighted Average Weekly Rate of Wage	874	909	627	567	489	482	3,948
	76s. 9d.	72s. 0d.	78s. 7d.	70s. 5d.	77s. 8d.	69s. 0d.	74s. 11d.*
	1,025	961	1,050	940	1,037	921	1,000*

^{*} Weighted average.

The results shew that the weighted average nominal weekly rate of wage was highest in Queensland, followed in the order named by Western Australia, New South Wales, Victoria, South Australia, and Tasmania.

3. Weighted Average Nominal Weekly Rate of Wage Payable to Adult Male Workers in each Industrial Group, 31st December, 1919.—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 (=1,000).

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, 1919.

. Industrial Group.	No. of Rates Included.	Weighted Average Weekly Wage (for Full Week's Work).	Index Numbers.
I. Wood, Furniture, etc. II. Engineering, Metal Works, etc. III. Food, Drink, etc. IV. Clothing, Boots, etc V. Books, Printing, etc. VI. Other Manufacturing VII. Building VIII. Mining IX. Rail and Tram Services X. Other Land Transport XI Shipping, etc.	270 636 576 124 205 875 190 161 224 70	s. d. 75 9 77 6 75 6 73 5 80 9 75 4 79 8 88 4 78 6 73 4 77 9†	1,012 1,034 1,008 980 1,078 1,006 1,063 1,179 1,048 979 1,038
XII. Pastoral, Agricultural, etc XIII. Domestic, Hotels, etc	$\begin{array}{c} 72 \\ 114 \end{array}$	70 3‡ 68 7§	$937 \\ 915$
XIV. Miscellaneous	233	71 3	951
All Groups	3,948	74 11	1,000*

^{*} Weighted average. † Including the value of victualling and accommodation where supplied. ‡ Including the value of board and lodging, where supplied, estimated at 20s. per week. § Including the value of board and lodging, where supplied, as follows:—In Sydney 11s. to 19s. (according to class of establishment); in Melbourne 14s.; in Brisbane 15s. and 17s.; in Adelaide 14s. (Restaurants) and 15s. (Hotels and Clubs); in Perth 22s.; and in Hobart 15s. per week.

From the above table it may be seen that the highest weighted average wage was that paid in Group VIII. (Mining), 88s. 4d. per week, or approximately 18 per cent. above the weighted average for all groups. The rates of wage range from 88s. 4d. per week down to 68s. 7d. per week, in Group XIII. (Hotels, etc.), which is 8.5 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, 1919.—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 (=1,000), 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 INDEXNUMBERS IN EACH STATE AND COMMONWEALTH, 31st DECEMBER, 1919.

Particulars.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	C'wealth.
Number of Occupations in-	85	87	37	47	24	28	308
cluded Weighted Average Weekly	40s. 0d.	34s. 5d.	38s. 4d.	33s. 3d.	43s. 7d.	• 33s. 0d.	37s. 1d.*
Rate of Wage	1,080	929	1,035	897	1,176	890	1,000*

[·] Weighted average.

It will be seen that the weighted average nominal weekly rate of wage for adult female workers was highest in Western Australia, followed in the order named by New South Wales, Queensland, Victoria, South Australia, and Tasmania.

5. Weighted Average Nominal Weekly Rates of Wage Payable to Adult Female Workers in Industrial Groups, 31st December, 1919.—The following table gives separate particulars regarding the weighted average nominal weekly 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 (=1,000) are also given:—

WEIGHTED AVERAGE NOMINAL WEEKLY RATES OF WAGE PAYABLE TO ADULT FEMALE WORKERS FOR A FULL WEEK'S WORK, AND WAGE INDEXNUMBERS IN INDUSTRIAL GROUPS, 31st DECEMBER, 1919.

Industrial Group.	No. of Rates Included.	Weighted Average Weekly Wage (for Full Week's Work).	Index- Numbers.
III. Food, Drink, etc	35 114 84 57 18	s. d. 34 8 37 4 36 9 38 2* 36 2	936 1,006 991 1,028 976
All Groups	308	37 1	1,000†

^{*} See footnote § on preceding page.

6. Relative Hours of Labour and Hourly Rates of Wage, 1914 to 1919.—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 the end of each of the years 1914 to 1919. 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 groups 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 the hourly wage relate to all industrial groups 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 average.

[‡] See footnote to table on page 1064.

WEIGHTED AVERAGE NOMINAL WEEKLY AND HOURLY RATES OF WAGE PAYABLE TO ADULT WORKERS, AND WEEKLY HOURS OF LABOUR, 31st DECEMBER, 1914 TO 1919.

Date.	Particulars.		n.s.w.	Vic.	Q'land.	S.A.	W.A.	Tas.	C'wlth
		Ma	LE Wo	RKERS.					
31st Dec., 1914	(Weekly Wage* Working Hours† Hourly Wage†		$egin{array}{c cccc} s. & d. \\ 56 & 2 \\ 49.35 \\ 1/2 \\ \end{array}$	s. d. 54 7 48.66 1/13	s. d. 53 5 48.64 1/13	s. d. 54 5 48.59 1/13	8. d. 62 10 48.18 1/41	s. d. 52 8 48.62 1/1	s. d. 55 7 48.87 1/2
31st Dec., 1915	Weekly Wage* Working Hours† Hourly Wage†	::	$egin{array}{c c} s. & d. \\ 57 & 7 \\ 49.28 \\ 1/2\frac{1}{2} \\ s. & d. \\ \end{array}$	$egin{array}{cccc} s. & d. \\ 55 & 3 \\ 48.50 \\ 1/2 \\ s. & d. \\ \end{array}$	8. d. 54 4 48.56 1/2 8. d.	s. d. 54 8 48.50 1/2 s. d.	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\begin{array}{cccc} s. & d. \\ 53 & 2 \\ 48.56 & 1/1 \\ s. & d. \\ \end{array}$	8. d. 56 6 48.77 1/2½ 8. d.
31st Dec., 1916	Weekly Wage* Working Hours† Hourly Wage†	::	61 11 48.51 1/33 s. d.	58 10 48.22 1/3 s. d.	60 4 48.27 1/31 s. d.	59 0 48.14 1/3 s. d.	65 2 48.11 1/43 s. d.	57 0 48.55 1/2 s. d.	60 8 48.33 1/31 8. d
31st Dec., 1917	Weekly Wage* Working Hourst Hourly Waget		64 5 48.41 1/3‡ s. d.	63 0 48.14 1/4 s. d.	65 3 47.19 1/5 s. d.	63 1 47.82 1/4 s. d.	68 11 48.10 1/51 s. d.	59 7 48.48 1/3 s. d.	64 2 48.10 1/41 8. d
31st Dec., 1918	Weekly Wage* Working Hourst Hourly Waget		65 11 48.16 1/43 s. d.	65 6 47.98 1/43 8. d.	69 6 46.90 1/6 s. d.	$65 6 47.77 1/4\frac{1}{4}$ s. d.	70 4 47.69 1/6 s. d.	$ \begin{array}{c c} 61 & 2 \\ 48.39 \\ 1/3\frac{3}{4} \\ s. & d. \end{array} $	66 5 47.88 1/5 s. d.
31st Dec., 1919	Weekly Wage* Working Hours† Hourly Wage†	 	76 9 47.77 1/71	$72 0 \ 47.36 \ 1/6\frac{1}{2}$	78 7 46.19 1/9	$70 5 47.58 1/5\frac{1}{2}$	77 8 47.60 1/72	69 0 47.89 1/5½	74 11 47.41 1/74

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31st Dec., 1914	Weekly Wage		8. d. 27 9 48.54	s. d. 27 1 49.82	s. d. 24 1 49.33	8. d. 37 4 49.44	s. d. 25 10 50.76	s. d. 27 5 49.11
31st Dec., 1915	(Hourly Wage Weekly Wage Working Hours	$ \begin{array}{c c} -/6\frac{1}{3} \\ 8. & d. \\ 27 & 5 \\ 49.45 \end{array} $	-/63 s. d. 26 11 48.46	-/61 s. d. 26 11 49.84	-/53 8. d. 24 6 49.35	-/9 8. d. 37 5 49.86	-/6 s. d. 28 0 50.14	-/63 s. d. 27 4 49.12
	(Hourly Wage	-/63 s. d. 28 7	-/63 s. d. 28 5	-/6½ s. d. 27 3	-/6 s. d. 24 10	-/9 s. d. 38 10	$-/6\frac{3}{4}$ s. d. 28 3	-/63 s. d. 28 5
31st Dec., 1916	Working Hours Hourly Wage Weekly Wage	49.44 -/7 s. d. 30 5	48.36 -/7 s. d. 30 4	49.85 -/61 s. d. 30 5	49.02 -/6 s. d. 27 9	49.08 -/9½ s. d. 38 10	49.83 -/63 8. d. 28 5	49.02 -/7 s. d. 30 5
31st Dec., 1917	Working Hours	48.98 -/71 s. d. 31 10	48.32 -/71 s. d. 31 3	48.99 -/71 s. d. 32 10	48.73 -/63 s. d. 29 5	48.78 -/91 s. d. 38 10	49.83 -/63 s. d. 28 9	48.71 -/7½ s. d. 31 9
31st Dec., 1918	Weekly Wage Working Hours Hourly Wage	48.35 -/8 s. d.	48.32 -/73 s. d.	48.37 -/81 s. d.	48.73 -/71 s. d.	48.78 $-/9\frac{1}{3}$ s. d.	49.83 -/7 s. d.	48.42 -/73 s. d.
31st Dec., 1919	Weekly Wage Working Hours Hourly Wage	40 0 47.53 -/10	34 5 47.63 -/8‡	38 4 46.76 -/93	33 3 47.67 -/81	43 7 48.12 -/11	33 0 49.28 -/8	37 1 47.54 -/91

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

From the foregoing table it may be seen that there has been a diminution in each of the States in the number of working hours constituting a full week's work for male The effect of these changes on the hourly rate of wage as and female occupations. 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 30th April, 1914, as base (=1,000).

RELATIVE INDEX-NUMBERS FOR WEEKLY AND HOURLY WEIGHTED AVERAGE WAGE, 30th APRIL, 1914, 31st DECEMBER, 1914 TO 1919.

Note.—Weighted Average for the Commonwealth at 30th April, 1914, as base (=1,000).

Date.	 Particulars.		N.S.W.	Vic.	Q'land.	S.A.	W.A.	Tas.	C'with
		Ma	LE Wor	RKERS.					
30th April, 1914	 (Weekly Wage) Hourly Wage		1,011 998	984 980	955 963	986 991	1,128 1,170	952 933	1,000
31st Dec., 1914	 { Weekly Wage Hourly Wage	::	1,019 1,010	990 990	969 985	988 993	1,140 1,173	956 936	1,008 1,009
31st Dec., 1915	 { Weekly Wage { Hourly Wage		1,044 1,039	1,002 1,006	986 1,008	992 1,001	1,149 1,182	965 946	1,023 1,030
31st Dec., 1916	 { Weekly Wage Hourly Wage	::	1,123 1,127	1,067 1,074	1,095 1,097	1,071 1,075	1,182 1,206	1,034 1,011	1,100 1,105
31st Dec., 1917	 { Weekly Wage Hourly Wage	::	1,168 1,162	1,143 1,138	1,183 1,209	1,144 1,145	1,250 1,252	1,081 1,079	1,164 1,164
31st Dec., 1918	 { Weekly Wage { Hourly Wage	::	1,196 1,196	1,189 1,192	1,261 1,297	1,188 1,176	1,276 1,282	1,110 1,120	1,205 1,210
31st Dec., 1919	 Weekly Wage Hourly Wage	::	1,393 1,405	$1,306 \\ 1,322$	1,426 1,512	$1,277 \\ 1,262$	1,409 1,408	1,251 1,259	1,359 1,378

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				1						
30th April, 1914		{ Weekly Wage { Hourly Wage	::	984 980	1,006 1,021	989 976	885 881	1,373 1,386	950 920	1,000 1,000
31st Dec., 1914		{ Weekly Wage Hourly Wage		987 983	1,022 1,035	996 983	885 881	1,373 1,364	950 920	1,008 1,009
31st Dec., 1915		Weekly Wage Hourly Wage	::	1,007 1,002	990 1,005	990 976	901 898	1,376 1,357	1,031 1,011	1,005 1,006
31st Dec., 1916		Weekly Wage Hourly Wage	::	1,050 1,044	1,047 1,063	1,004 991	915 916	1,429 1,431	1,041 1,027	1,047 1,048
31st Dec., 1917		Weekly Wage (Hourly Wage	••	1,119 1,122	1,116 1,134	1,120 1,122	1,020 1,027	1,430 1,440	1,045 1,029	1,121 1,130
31st Dec., 1918		{ Weekly Wage Hourly Wage		1,173 1,191	1,151 1,169	1,208 1,226	1,084 1,092	1,430 1,426	1,059 1,044	1,168 1,185
31st Dec., 1919		{ Weekly Wage Hourly Wage		1,474 1,523	1,268 1,307	1,412 1,483	1,225 1,262	1,605 1,639	1,215 1,211	1,365 1,410
	_	<u> </u>								

§ 4. Variations in Nominal and Effective Wages.

1. Variations in Wage Index-Numbers in Various Industries, 1901 to 1919.—The total number of different occupations for which particulars as to wages are available back to 1901 is 652. In 1913 the number of occupations was increased to 3,948. These wages relate generally to award rates, but in a few cases, more especially for the earlier years, when there were no award 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 each State, but in industries such as mining and agriculture, the rates in the more important 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 wage 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. 10, page 75). 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 (=1,000). 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 1919. (WEIGHTED AVERAGE FOR ALL GROUPS IN 1911 = 1,000.)

	Particulars.	Occur	ber of ations ided.	İ	901. 1906.		1019	1019	1014	1015	1016	3. 1917.	1918	1919.
	Tarologians.	1901 to 1912.	1913 to 1919.		1000.	1311.	1012.	1010.			1010.		1010.	

1.	Wood, Furniture,	27	970	1 010	1 004	1 105	1 144	1 140	1 101	1 174	1 045	1 000	1 945	1 470
Tì	Engineering, Metal		270	1,019	1,024	1,125	1,144	1,142	1,101	1,174	1,245	1,400	1,545	1,479
11.	Works, etc	101	636	945	957	1 064	1 104	1 113	1 127	1 174	1 211	1 268	1 340	1.512
TTT.	Food, Drink, etc.	34	576		837									1,473
ĨŸ.	Clothing, Hats,	"	0.0	,,,			-,000	-,	1,000	_,	-,	-,	-,	-,
•	Boots, etc	13	124	708	841	981	990	1,019	1,034	1,037	1,104	1,163	1,198	1,433
V.	Books, Printing,							, i	'	-	1		, i	•
	etc	25	205	996	1,002	1,149	1,188	1,234	1,246	1,259	1,328	1,376	1,446	1,576
VI.	Other Manufac-							1						
	turing	102	875						1,093					
	Building	67	190	1,050	1,070	1,213	1,245	1,270	1,276	1,285	1,359	1,413	1,449	1,554
VIII.	Mining, Quarries,			1 000	1 000			1 070	,	1 000	1 400	1 -00	1 500	1 -04
137	etc.	71	161	1,067	1,093	1,194	1,216	1,270	1,272	1,299	1,420	1,528	1,532	1,/24
IX.	Rail and Tram	68	004	1,021	1 004	1 110	1 104	1 105	1 105	1 107	1 000	1 000	1 945	1 590
•	Services Other Land Trans-	98	224	1,021	1,024	1,113	1,104	1,100	1,105	1,107	1,230	1,280	1,343	1,552
Д.	no et	9	70	795	795	910	993	006	1,026	1.041	1 199	1 910	1 227	1.421
77	Shipping, etc	74	198	751	778	871								1,518
	Agriculture, Pas-	12	150	131	""	611	042	330	312	1,020	1,100	*,101	1,20.	1,010
2111.	toral, etc	8	72	627	671	839	944	965	965	969	1.073	1.192	1,231	1.370
XIII.	Domestic, Hotels,		•	04.	٠.٠				•••		_,,,,,	-,		2,010
	etc.	17	114	598	606	887	894	918	935	948	995	1.052	1.104	1.338
XIV.	Miscellaneous	36	233	759	771	929	1.015	1,045	1,054					
	All Groups*	652	3,948	848	866	1,000	1,051	1,076	1,085	1,102	1,184	1,252	1,296	1,462
								'						

Note.—The figures in the above table are comparable both horizontally and vertically.

It may be seen that the index-numbers increased during the whole period under review from 848 in 1901 to 1,000 in 1911, 1,051 in 1912, 1,184 in 1916, 1,252 in 1917, 1,296 in 1918, and to 1,462 in 1919.

2. Variations in Wage Index-Numbers in Different States, 1901 to 1919.—The following table shows the progress in rates of wage for all industries in each State, the weighted average wage for the Commonwealth in 1911 being taken as the base (=1,000). These results are based generally upon rates of wage 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.

Weighted average: see graph on page 1071 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.

VARIATIONS IN NOMINAL WAGE INDEX-NUMBERS IN DIFFERENT STATES, 1901 TO 1919.

(WEIGHTED AVERAGE WAGE FOR COMMONWEALTH IN 1911=1,000.)

		er of ations ided.												
States.	l	,	1901.	1906.	1910.	1911.	1912.	1913.	1914.	1915.	1916.	1917.	1918.	1919.
	1901 to 1912.	1913 to 1919.												
		 -												
New South Wales Victoria Queensland	158 150 87	874 909 627	796		924	985	1,058 1,038 1,010	1,058	1,065	1,078	1,148	1,229	1,278	1,498 1,404 1,534
South Australia	134	567					1,048							
Western Australia Tasmania	69 54	489 482	1,052	1,053	1,116	1,152	1,191	1,214	1,226	1,236	1,272	1,345	1,372	
	 													
Commonwealth*	652	3,948	848	866	955	1,000	1,051	1,076	1,085	1,102	1,184	1,252	1,296	1,462

* Weighted average.

Note.—The figures 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 1071, which shews 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 any other State. The graphs for Victoria and South Australia lie very close together throughout the period. In Tasmania 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 from 20 per cent. below the average for the Commonwealth to less than 8 per cent. below.

3. Variations in Effective Wages.—In order to obtain an accurate measure of the progress in the material welfare of wage-earners, regard must be had to the purchasing-power of wages, and the index-numbers based merely upon nominal rates of wage must consequently be subject to some modification, inasmuch as they take no account of variations in the purchasing-power of money. In computing these effective wage index-numbers, the nominal wage index-numbers given in sub-section 2 hereof have been divided by the purchasing-power-of-money index-numbers in Section IV., paragraph 5 of Labour Report No. 10, pp. 28–29. 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 1919:—

VARIATION IN EFFECTIVE WAGES IN EACH STATE AND COMMONWEALTH, 1901 TO 1919.*

Particulars.		1901.	1906.	1910.	1911.	1912.	1913.	1914.	1915.	1916.	1917.	1918.	1919.
New South Wales Victoria Queensland				981 1,095	1,037 1,090	981 1,032	1,007 1,060	909 964 1,045	844 912	877 991	950 1,078		949 948 1,064
South Australia Western Australia Tasmania	•••	948 1,024 827	934 1,029 833	1,091	1,023	906 1,032 896	947 1,076 976	929 1,073 943	1,011	896 1,005 870	1,079		935 1,068 900
Commonwealth		964	960	985	1,000	955	975	952	862	894	950	952	968

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 1907 onwards are shewn in the graph on A comparison between this graph and the preceding one 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 showing a practically continuous and rapid upward trend, the effective wages show (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, 1916, 1917, 1918 and 1919 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, which was not, immediately, compensated by increased wages. Since 1911 the effect of prices on nominal wages has caused serious fluctuations in the effective wage, e.g., the effective wage index-number for the Commonwealth for the year 1915 (862) was 13.8 per cent. below that of 1911. From 1915 to 1919 the effective wage index-number rose by 12.3 per cent. to 968, which, however, still leaves the average effective wage for the Commonwealth lower than in 1911 by 3.2 per cent. In the next table index-numbers are given for nominal wages and for the purchasing-power of money, together with the effective wage index-number derived therefrom.

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 rates of wage fixed according to the relative purchasing-power of money, it appears probable that this tendency will continue in the future.

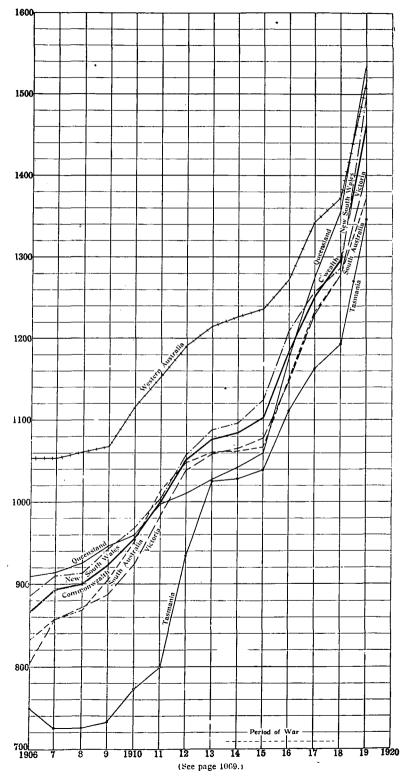
4. Variations in Effective Wages and Standard of Comfort, 1901 to 1919.—In the preceding paragraph particulars are given as to variations in effective wages in each State, due allowance having been made for variations in purchasing-power of money, though not for unemployment. Attention has also been drawn to the limitations to which they are subject in abnormal times.

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 are shewn, and in Columns VI. and VII. the effective wage index-numbers 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."*

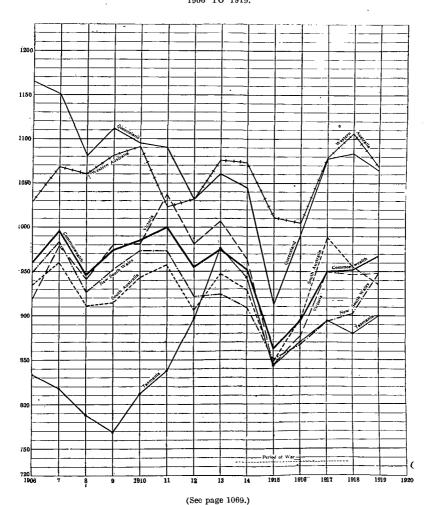
A comparison between the figures in Columns I. and VI. shews the relation between the nominal rates of wage and the purchasing efficiency of these rates. The figures in Column VII. shew variations in effective wages after allowing not only for variations in purchasing power of money, but also for the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

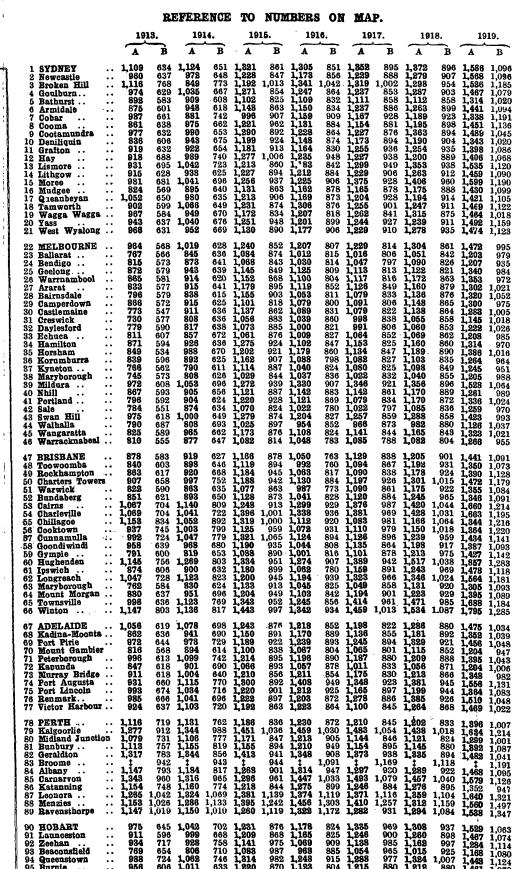
^{*} This expression must not be confused with "standard of living." A change in the standard of living necessarily involves a change in regimen (see Labour Report No. 1), that is, a change in the nature or in the relative quantity of commodities purchased, or both. A change in the "standard of comfort" 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."

- NOMINAL WAGE INDEX-NUMBERS IN EACH STATE AND COMMONWEALTH. 1906 TO 1919.



EFFECTIVE WAGE INDEX-NUMBERS IN EACH STATE AND COMMONWEALTH, $1906\ {\rm TO}\ 1919.$





1916.

837 844 914 852 941 872 853 857 916 868 857 907 860 872 872 874 921 868 921 885 996 1,225 1,252 1,252 1,224 1,192 1,223 1,224 1,234 1,258 1,251 1,257 1,178 1,297 1,297 1,297 1,297 1,297 1,297 1,297 1,297 1,292 1,

980 1,615 775 1,294 848 1,230 869 1,256

.. 1,315 1,092 1,316 1,090 1,280 1,033 1,207 984 1,334 1,176 .. 1,259 879 1,343 963 1,348 1,176 1,283 901 1,415 1,029

855 874 931 869 930 937 915 872 871 878 917 875 909 873 892 868 850 906 887 908 887 886 887 9886 887 9886 887 | 1,046 | 1,261 | 1,150 | 1,171 | 1,247 | 1,1839 | 1,280 | 1,271 | 1,270 | 1,271 | 1,271 | 1,279 | 1,182 | 1,281 | 1,271 | 1,279 | 1,182 | 1,283 | 1,283 | 1,283 | 1,283 | 1,283 | 1,283 | 1,283 | 1,283 | 1,283 | 1,283 | 1,283 | 1,283 | 1,283 | 1,283 | 1,283 | 1,283 | 1,283 | 1,283 | 1,283 | 1,283 | 1,283 | 1,283 | 1,283 | 1,283 | 1,283 | 1,283 | 1,283 | 1,283 | 1,283 | 1,283 | 1,283 | 1,283 | 1,283 | 1,283 | 1,283 | 1,283 | 1,283 | 1,283 | 1,283 | 1,283 | 1,283 | 1,283 | 1,283 | 1,283 | 1,283 | 1,283 | 1,283 | 1,283 | 1,283 | 1,283 | 1,283 | 1,283 | 1,283 | 1,283 | 1,283 | 1,283 | 1,283 | 1,283 | 1,283 | 1,283 | 1,283 | 1,283 | 1,283 | 1,283 | 1,283 | 1,283 | 1,283 | 1,283 | 1,283 | 1,283 | 1,283 | 1,283 | 1,283 | 1,283 | 1,283 | 1,283 | 1,283 | 1,283 | 1,283 | 1,283 | 1,283 | 1,283 | 1,283 | 1,283 | 1,283 | 1,283 | 1,283 | 1,283 | 1,283 | 1,283 | 1,283 | 1,283 | 1,283 | 1,283 | 1,283 | 1,283 | 1,283 | 1,283 | 1,283 | 1,283 | 1,283 | 1,283 | 1,283 | 1,283 | 1,283 | 1,283 | 1,283 | 1,283 | 1,283 | 1,283 | 1,283 | 1,283 | 1,283 | 1,283 | 1,283 | 1,283 | 1,283 | 1,283 | 1,283 | 1,283 | 1,283 | 1,283 | 1,283 | 1,283 | 1,283 | 1,283 | 1,283 | 1,283 | 1,283 | 1,283 | 1,283 | 1,283 | 1,283 | 1,283 | 1,283 | 1,283 | 1,283 | 1,283 | 1,283 | 1,283 | 1,283 | 1,283 | 1,283 | 1,283 | 1,283 | 1,283 | 1,283 | 1,283 | 1,283 | 1,283 | 1,283 | 1,283 | 1,283 | 1,283 | 1,283 | 1,283 | 1,283 | 1,283 | 1,283 | 1,283 | 1,283 | 1,283 | 1,283 | 1,283 | 1,283 | 1,283 | 1,283 | 1,283 | 1,283 | 1,283 | 1,283 | 1,283 | 1,283 | 1,283 | 1,283 | 1,283 | 1,283 | 1,283 | 1,283 | 1,283 | 1,283 | 1,283 | 1,283 | 1,283 | 1,283 | 1,283 | 1,283 | 1,283 | 1,283 | 1,283 | 1,283 | 1,283 | 1,283 | 1,283 | 1,283 | 1,283 | 1,283 | 1,283 | 1,283 | 1,283 | 1,283 | 1,283 | 1,283 | 1,283 | 1,283 | 1,283 | 1,283 | 1,283 | 1,283 | 1,283 | 1,283 | 1,283 | 1,283 | 1,283 | 1,283 | 1,283 | 1,283 | 1,283 | 1,283 | 1,283 | 1,283 | 1,283 | 1,283 | 1,283 | 1,283 | 1,283 | 1,283 | 1,283 | 1,283 | 1,283 | 1,283 | 1,283 | 1,283 | 1,283 | 1,283 | 1,283 | 1,283 | 1,283 | 1,2

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12 13 14 15 16 17 18 19	Newcastie Broken Hill Goulburn	974 898 875 987 888 875 987 861 977 836 918 931 918 931 824 1,052 967 943	583 601 661 638 632 606 632 688 695 628 681 569 659 584	948 949 948 975 990 948 922 989 1,042 895 949 1,040 952	608 618 742 662 653 675 740 723 625 696 640 635	1,192 1,192 1,102 1,1102 1,129 996 1,221 1,290 1,181 1,277 1,213 1,226 1,131 1,231 1,231 1,172 1,251 1,172	962 892 924 913 1,006 860	1,170 1,370 1,370 1,159 1,159 1,181 1,228 1,164 1,218	300 1,042 864 832 834 909 884 864 874 842 884 906 878 873 876 818 899 906	1,239 1,237 1,111 1,237 1,164 1,227 1,175 1,255 1,227 1,299 1,229 1,255 1,204 1,255 1,204 1,255	1,002 853 858 858 8928 881 876 936 938 949 906 928 878 928 901 841 927 910	1,189 1,195 1,363	907 954 903 858 899 923 898 894 935 889 914 911 875 911 935	1,314 1,441 1,838 1,451 1,489	1,185 1,079 1,020 1,094 1,191 1,136 1,045 1,020 1,088 1,120 1,090 1,190 1,105 1,122 1,018	104 105 106 107 108 110 111 113 114 115 116 117 118 119 120	Bega Bourke Bourke Bourke Coonamble Coorinal Cowra Dubbo Forbes Glen Innes Gruned Gunnedah Inverel Junee Katoomba Kempsey Maitland Moss Vale Narrabri	•
234 245 267 278 289 331 333 344 356 389 441 443 443 445	MELBOURNE Ballarat	964 7617 872 863 796 863 773 730 745 871 871 871 879 745 975 796 796 796 780 780 780 780 780 780 780 780 780 780	566 573 573 577 577 577 572 547 577 594 594 598 593 593 593	1,019 845 878 9143 9143 915 838 915 808 817 926 988 998 790 808 1,053 905 904 1,000 808 877	636 638 672 636 670 625 611 626 696 654 634 649 649 662	1,240 1,084 1,168 1,152 1,179 1,155 1,107 1,056 1,073 1,275 1,202 1,114 1,029 1,114 1,029 1,121 1,279 1,127 1,12 1,12	868 895 903 818 862 883 8876 924 921 907 844 939 887 824 874 874 876	1,207 1,012 1,030 1,125 1,100 1,119 1,053 1,079 1,089 1,089 1,022 1,179 1,087 1,087 1,142 1,121 1,214 1,214 1,214 1,214 1,214 1,148 1,048	800 831 860 827 847 860 798 824 836 907 883 869 780 827 852 824	1,229 1,016 1,047 1,113 1,117 1,079 1,079 1,079 1,079 1,053 1,153 1,153 1,153 1,153 1,153 1,153 1,153 1,153 1,080 1,022 1,079	806 822 838 806 852 825 847 825 832 921 861 8797 859 878	1,304 1,051 1,199 1,122 1,172 1,160 1,136 1,138 1,055 1,060 1,189 1,160 1,189 1,160 1,189 1,356 1,356 1,356 1,170 1,170 1,170 1,288 1,088 1,188 1,088 1,188 1,088 1,188 1,088 1,188 1,088 1,188 1,188 1,088 1,188 1,088 1,188 1,188 1,188 1,188 1,188 1,188 1,188 1,188 1,188 1,188 1,189	879 876 865 864 858 853 860 835 849 855 849 876 889 873 836	1,472 1,203 1,203 1,353 1,300 1,320 1,320 1,222 1,222 1,236 1,314 1,326 1,245 1,245 1,261 1,336 1,243 1,261 1,336 1,261 1,326	995 979 935 984 972 1,021 1,052 1,018 1,026 985 970 1,016 984 981 1,024 971 1,024 973 1,037 1,037	124 125 126 127 128 129 130 131 132 133 134 135 136 137 141	Orange Parkes Temora Wellington Wollongong Young VICTORIA Beechworth Benalla Bright Colac Dunnolly Euroa Maldon Orbost St Arnaud Shepparton Stawell Wandiligong Wonthaggi Yackandandah QUEENSLAM	
 48 49 50 51 52 53 54 55 56 60 61 62 63 64 65	BRISBANE Toowoomba Rockhampton Charters Towers Warwick Bundaberg Cairns Charleville Chiliagoe Cooktown Cunnamulla Goondiwindi Gympie Hughenden Ipswich Longreach Maryborough Mount Morgan Townsville Winton	992 958 791 1,145 874 1,047 762 880 996	704 834 745 724 639 600 756 606 728 584 637 636	919 898 920 997 863 893 1,1041 1,052 1,043 1,048 819 1,28 830 1,123 1,123 1,123	646 668 752 635 650 722 892 799 680 653 803 632 823 624	1,166 1,119 1,184 1,188 1,077 1,128 1,396 1,319 1,125 1,321 1,190 1,088 1,318	894 945 945 863 873 913 1,000 1,065 935 890 951 899 945 913 945	1,050 992 1,063 1,106 987 1,041 1,299 1,338 1,112 1,072 1,104 1,044 1,062 1,194 1,045 1,104 1,04 1,	760 817 884 773 828 929 936 920 931 894	1,129 1,094 1,090 1,197 1,090 1,381 1,381 1,083 1,110 1,135 1,101 1,389 1,323 1,049 1,324 1,144 1,445	867 838 926 864 987 969 981 979 864 878 942 966 858 901	1,175 1,245 1,420 1,428 1,165 1,150 1,239 1,198 1,517 1,243 1,346 1,131 1,243	924 1,015 922 965 1,044 1,031 1,064 1,018 959 917 975 1,038 9,024 1,024	1,441 1,350 1,390 1,475 1,355 1,348 1,660 1,344 1,384 1,387 1,427 1,427 1,427 1,427 1,564 1,305 1,368 1,368 1,368	1,091 1,073 1,128 1,178 1,084 1,091 1,214 1,126 1,220 1,141 1,093 1,142 1,283 1,181 1,093 1,181 1,093 1,181	145 146 147 148	Cloneurry Hamilton	ta-
68 69 70 71 72 73 74 75 76	ADELAIDE Kadina-Moonta - Port Price Mount Gambier Peterborough - Kapunda - Murray Bridge - Port Angusta - Port Lincoln - Benmark - Victor Harbour	1,056 862 972 816 996 847 911 931 993 985	636 644 568 613 618 618 660 674	1,078 941 978 894 1,099 901 1,004 1,115 1,034 1,041 1,103	690 729 614 742 690 640 770	1,243 1,150 1,189 1,100 1,214 1,066 1,210 1,300 1,220 1,222 1,192	891 922 838 895 893 856 892 901	1,218 1,170 1,239 1,067 1,196 1,057 1,211 1,408 1,212 1,203 1,223	852 889 893 804 890 878 854 949 925 872 864	1,198 1,136 1,245 1,065 1,187 1,011 1,175 1,348 1,165 1,278 1,100	897 886 845	1,286 1,181 1,329 1,115 1,209 1,056 1,213 1,381 1,199 1,385 1,264	944 926 868	1,348 1,556 1,364 1,510 1,469	1,083 1,048			
79 80 81 82 83 84 85 86 87 88	PERTH Kalgoorlie Midland Junction Bunbury Geraldton Broome Albany Carnarvon Katanning Leonora Menzies Ravensthorpe	1,079 1,113 1,317 1,147 1,343 1,154 1,285 1,158	793 960 748 1,042 1,026	1,181 1,344 1,106 1,155 1,844 1,184 1,316 1,160 1,324 1,286 1,150	943 817 965 774 1,069 1,133	1,186 1,451 1,171 1,155 1,413 1,268 1,296 1,218 1,381 1,395 1,260	944 901 961 844 1,139 1,242	1,814 1,447 1,975	949 908 1,091 947 1,033 899 1,119 1,303	1,373 1,873 1,297 1,493	938 1,169 920 1,079 884	1,335 1,289 1,457 1,276 1,359 1,312	1,018 824	1,482 1,468 1,579 1,352 1,640 1,560	1,214 1,001 1,087 1,041 1,191 1,095 1,126 947 1,321			
 91 92 93 94 95 96 97 98	HOBART Launceston Zeehan Beaconsfield Queenstown Burnie Campbell Town Devonport Franklin Oatlands Scottsdale	988 956 701 899	717 654 724	1,042 999 928 806 1,062 1,011 756 879 919 874 844	710 746 633 660 633 703 682	1,231 1,209 1,141 1,083 1,814 1,220 1,228 1,228 1,082	975 987	1,178 1,165 1,069 968 1,248 1,128 940 1,176 1,066 976	909 885 915 804 815 846 838 804	1,385 1,246 1,138 1,054 1,288 1,215 1,039 1,191 1,229 1,035 1,118	969 900 985 965 977 880 902 856 923 907 888	1,308 1,260 1,162 1,015 1,324 1,212 1,050 1,281 1,227 1,013 1,138	997 925	1,284 1,168 1,448 1,461 1,240 1,410	1,074 1,114 1,080 1,124 1,079 1,030 1,040			

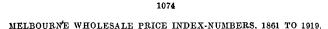
3.83	• • •		955	CI
3483				E I C
		· iai	• 50	OCEAN
				M. A
Weighted Average for	r 100 towns in November, 1	913 = 1000.	62	
85				52 9
198			,54	559
		F-12-1	1 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	145
	-		715 A 150 A	13
90 50			-107 No.	
89			110 1126 124 116	***************************************
		67.0	2 2 13 105 123 (A) 105 (A) 105	TOB
B		40 46 38 33	10 10 17 12	
A—Less than one inhabitant to 16 s B—From 1 inhabitant in 16 sq. mil C— ,, 1 ,, 4 ,,	sq. miles. les to less than 1 in 4 sq. miles. , , 1 in 1 sq. mile.	34 .44 .35 .34 .35 .35 .35 .35 .35 .35 .35 .35 .35 .35		
D— ,, 1 ,, 1 sq. mile E— ,, 2 inhabitants in 1 ,, F— ,, 4 ,, 1 ,,	2 in 1 ,, ,, 4 in 1 ,, 8 in 1 ,,	26 292	2 36 42 2 42	
H.—18 inhabitants and upwards in 1		§	&	
RELATIVE COST OF FOOD, GROC (NOVEMBER, 1913, 1914, 1915, 1916			5 87 00 53 9	
in relation		545	99.0	

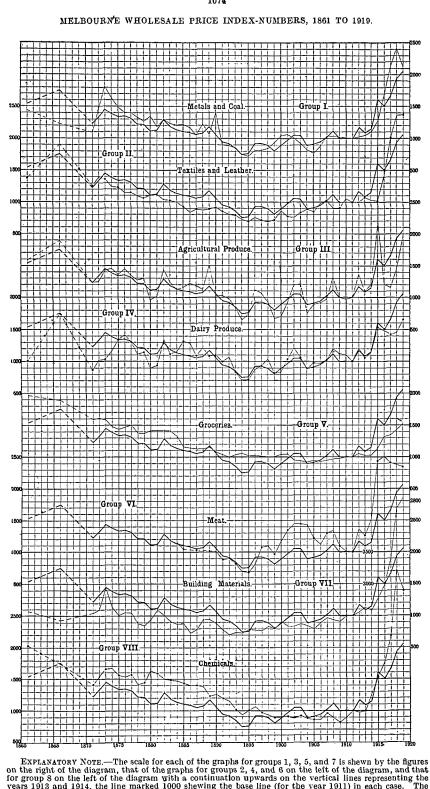
A.—Heavy Figures denote index-numbers for Food, Groceries, and Rent of 5-roomed Houses. B.-Light figures denote index-numbers for Food and Groceries only.

S .0

国

Weighted Average ...*1,000 *621*1,085 *665 †1,234 †872 †1,204 †840 †1,238 †866 †1,282 †891 †1,477 †1,059





EXPLANATORY NOTE.—The scale for each of the graphs for groups 1, 3, 5, and 7 is shewn by the figures on the right of the diagram, that of the graphs for groups 2, 4, and 6 on the left of the diagram, and that for group 8 on the left of the diagram with a continuation upwards on the vertical lines representing the years 1913 and 1914, the line marked 1000 shewing the base line (for the year 1911) in each case. The heavy line in each graph represents the index-numbers for all groups combined, the light line (dotted thus, in the case of the even groups) indicating in each instance the index-numbers for the separate group. (See page 1096.)

UNEMPLOYMENT, PURCHASING-POWER-OF-MONEY AND NOMINAL AND EFFECTIVE WAGE-INDEX NUMBERS, 1901 TO 1919.*

	Year. Nominal Wage Index-Numbers.		11.	Rates of V Numbers for Lost	Vage Index- , allowing Time.	V. Purchas-	Effective Wage Index-Numbers.			
Yea			Percentage Unem- ployed.	III. Actual.	IV. Re-com- puted. (1911 = 1,000).	ing-power- of-money Index- Numbers.	VI. Fuli Work.	VII. Allowing for Unemploy- ment.		
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		900	6.0	846	888	951	946	934		
1909		923	5.8	870	913	948	974	963		
1910		955	5.6	901	945	970	985	974		
1911 .		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		1,085	11.0	966	1,014	1,140	952	889		
1915		1,102	6.8	1,027	1,078	1,278	862	844		
1916	'	1,184	6.7	1,105	1,159	1,324	894	875		
1917		1,252	7.4	1,159	1,216	1,318	950	923		
1918		1,296	5.5	1,225	1,285	1,362	952	943		
1919		1,462	5.2	1,386	1,454	1,510	968	963		

^{*} As to the effect in abnormal periods, see Section IV., par. 3, of Labour Report No. 6.

During the period 1901-19, while the nominal wage index-number rose from 848 to 1,462, an increase of 72.4 per cent., prices rose from 880 to 1,510, or by 71.6 per cent., the net result therefore being that effective full time wages rose by only .4 per cent. Compared with 1911, effective wages shew a fall of 3.2 per cent., although nominal wages increased by 46.2 per cent.

§ 5. 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. Bonuses to employees have not been taken into account in the tabulations. Each single change recorded relates to a change in the rates of wage effected in a specific industry or calling, and includes any and all changes to workers in that industry, irrespective of the different number of separate occupations

or trades affected. Further, it should be observed that in some instances a change may relate to the employees of a single employer or to those of a number of employers, according to the instrument or method operating to bring about the change.

- (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 Changes. 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 to the secretaries of the trade unions, the members of which are affected by the change. 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 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.

When the forms are returned from the various persons who are required to complete them, 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, 1913-1919.— The following table gives particulars of changes which occurred in each State of the Commonwealth during the years specified. 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 industrial 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 received or paid per annum can be made until the determining factors have been investigated. These factors are (a) the amount of unemployment, and (b) the period of employment in seasonal industries.

It should be observed that changes brought about by awards and agreements under the Commonwealth Conciliation and Arbitration Act 1904–18 and the Commonwealth Arbitration (Public Service) Act 1911 are necessarily included hereunder as changes in each State to which such awards and agreements apply. The average increase per head per week is computed to the nearest penny.

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.

CHANGES IN RATES OF WAGE.—NUMBER AND EFFECT OF CHANGES IN EACH STATE AND TERRITORY, 1913 TO 1919.

Particulars.	N.S.W.	Vic.	Q'land.	S.A.	W.A.	Tas.	N.T.	*All States.	C'wealth.
No. of Changes { 191' 191' 191' 191' 191' 191' 191' 19	185 169	81 69 87 168	41 50 60 134	31	20 42 25 42	12 19 24 37		 1 2 6	
191 191 191	7 201 3 229	106 201 218	142 236 216		55 63 112	38 46 128	16 4 13	1 4	
No. of Persons 191: 191: 191: 191: 191: 191: 191: 191	56,469 109,260 242,721 101,158 146.399	49,254 29,876 39,087 119,878 68,272 110,027 125,693	74.174 116,627	5,624 10,206 40,925 20,209 16,239 35,377	3,036 8,399 2,661 5,848 12,997 9,871 26,673	3,005 4,262 3,147 7,232 5,288 3,631 16,108	185 258 1,143 624 1,287	390 10,000 3,546 11,000 616 2,095	361.581 603,891
Total Net Amount of 191 191 191 191 191 191 191 191 191 19	1 13,558 5 29,525 6 56,875 7 28,896 8 32,194 0 137,642	£ 9,880 6,688 8,078 30,566 15,129 25,514 43,930	£ 3,702 5,128 6,398 40,451 20,083 19.6)9 43.718	£ 1,279 1,941 3,539 9,930 6,070 3,885 11,989	£ 428 2,423 562 1,440 3,407 2.133 10,249	£ 635 804 778 1,980 1,987 1,323 7,350	£ 87 88 635 273 618	£ 143 2,938 1,593 4,800 239 949	\$ 37,713 30,685 51,905 142,923 81,007 85,260 256,445
Average Increase per Head per Week 1911 1911 1914 1914 1915 191	4 10 5 5 4 8 5 9 4 5	s. d. 4 0 4 6 4 2 5 1 4 5 4 8 7 0	8. d. 4 5 5 1 5 7 11 3 5 6 5 4 7 6	s. d. 5 7 6 11 6 11 4 10 6 0 4 9 6 9	8. d. 2 10 5 9 4 3 4 11 5 3 4 4 7 8	8. d. 4 3 3 9 4 11 5 6 7 6 7 3 9 2	s. d. 9 5 6 10 11 1 8 9 9 7	8. d. 7 4 5 11 9 0 8 9 7 9 9 1	8. d. 4 6 4 11 5 3 5 10 5 6 4 9 8 6

Changes recorded in this column are common to all States, as the particulars relating to the number of workpeople affected and the net amount of increase per week in each State were not ascertainable.
 Including four changes which affected 157 workpeople in the Federal Capital Territory.

In point of number of changes in each State, New South Wales was first, Victoria second, and Queensland third, in each of the years 1913 to 1916. During the year 1917 the number of changes in Queensland exceeded the number recorded in Victoria, while during the year 1918 the number of changes in Queensland was greater than the number recorded as having taken place in New South Wales. It will be seen from the table that, with the exception of Queensland, the number of changes in rates of wage recorded during the year 1919 is higher in each State than during any previous year. The relative position of the States in regard to the numbers of changes effected, and also in regard to the numbers of workers affected in each year is, of course, largely due to the magnitude of the different industries and callings in which changes took place.

The number of workpeople who were affected by changes in rates of wage during the year 1919 was 603,891, and the total net amount of increase per week was £256,445, representing 8s. 6d. per head per week. These figures are greater than in any other year for which records are available, and indicate a widespread attempt to restore wages to their previous relation to the cost of living, i.e., to regain the accustomed effective wage.

The foregoing shews the net results of all changes made in the rates of wage, and includes a few instances in which the weekly wage was reduced. It was in the year 1917 that the greatest number of reductions was recorded, when there were eleven such cases—(1.73 per cent.)—in a total of 637 changes. In 1919 the number of reductions recorded was six, the most important being the cases of the metalliferous miners at Moonta and Kadina, in South Australia, and at Mount Morgan in Queensland, who had entered into an agreement that wages should be related to the price of copper. In other cases the reduced weekly wage was due to a reduction in the number of hours in the working week without corresponding (if any) increase in the hourly rate of pay. Yet other cases were the result of appeals against recent awards, and others again were due to the cessation of special conditions for which higher rates had been temporarily paid. The workpeople who suffered reductions in their weekly wage in the six cases alluded to, numbered 4,293, their aggregate weekly wage being reduced by £886 or about 4s. 2d. each. Therefore, of the 1,284 changes made in 1919, 1,278, or 99.53 per cent. gave increased rates of pay, amounting to 8s. 7d. per head per week to 599,598 persons, representing 99.29 per cent. of the 603,891 persons affected by all changes during the year.

3. Number and Magnitude of Changes in Rates of Wage in the Commonwealth Classified according to Industrial Groups, 1913 to 1919.—Total Workpeople (Male and Female) affected by Changes. In the following table particulars are given of the number of changes, the number of persons (males and females) affected, and the total amount of increase per week, classified according to Industrial Groups throughout the Commonwealth during the years 1913 and 1916 to 1919:—

CHANGES IN RATES OF WAGE IN THE COMMONWEALTH ACCORDING TO INDUSTRIAL GROUPS, 1913 AND 1916 TO 1919.

						•	<u> </u>		-		
Industrial Group.											
Particulars.		I. Wood, Furniture, Timber, etc.	II. Engineering, Metal Works, etc.	III. Food, Drink, Tobacco, etc.	IV. Clothing,	Hats, Boots, etc.	V. Books,	TIMOMB, COC.	VI. Other Manufacturing.	VII. Building.	VIII. Mines, Quarries, etc.
1913. Number of Changes Number of Persons affected Amount of increase per week	÷	10 7,975 1,569	20 6,594 1,607	45 17,428 4,255	11,7 2,0	15 727 062	4,60 1,15	11 02 26	55 17,110 3,480	19,237	17 6,112 1,210
1916. Number of Changes Number of Persons affected Amount of increase per week	 	35 16,111 4,255	74 27,412 6,894	107 38,171 16,383	30,9 6,8	21 918 858	10,21 2,2	27 10 70	108 34,037 9,172	37,536	63 63,308 17,827
Number of Changes Number of Persons affected Amount of increase per week	÷	14 10,495 2,568	60 16,994 3,394	66 30,515 2,015	25,0 6,1	21 652 104	6,38 1,98	31 86 31	58 12,585 4,046	11,426	28 25,022 12,544
Number of Changes Number of Persons affected Amount of increase per week	 £	61 14,651 4,343	42 31,804 10,565	93 32,411 9,025	23,5 5,5	26 215 252	8,70 1,80	24 07 04	78 15,160 3,944	17,419	25 14,285 2,988
Number of Changes Number of Persons affected Amount of increase per week	÷	39 13,616 4,890	89 44,133 20,381	156 72,603 23,551	26,9 11,5	31 905 308	9,3 4,4	41 35 49	138 50,530 17,829	19,053	29 34,501 17,434
				Indu	strial	l Gro	up—	cont	inued.		
Particulars.		IX. Rail and Tram Services.	X. Other Land Transport.	XI Shiming etc.	0	XII. Pastoral,	Agricultural, etc.	XIII. Domestic.	Hotels, etc.	XIV. Miscellan- eous.	All Groups.*
Number of Changes Number of Persons affected Amount of increase per week	 £	16 20,046 3,219	7.33		19 339 543		3 828 436	6	9 ,481 ,922	59 38,818 8,264	312 166,132 37,713
Number of Changes Number of Persons affected Amount of increase per week	£	64 83,526 17,450	19,23	1 2 12 12,8 3,4	44 898 111	16, 16,	11 266 858	9	13 ,882 ,016	186 92,980 21,847	821 492,487 142,923
Number of Changes Number of Persons affected Amount of increase per week	£	50 37,264 12,711	10,26	9 1 12,0 4 5,0	25 313 329	3, 1,	10 440 096		15 ,359 ,720	144 74,898 18,668	574 292,910 81,007
Number of Changes Number of Persons affected Amount of increase per week	 £	38 59,625 10,320	12,78	5 2 1,9 5	38 990 719	1,	6 717 350	9	23 ,230 ,167	270 118,585 26,178	779 361,581 85,260
Number of Changes Number of Persons affected Amount of increase per week	 £	74 114,365 56,872	20,87				11 ,030 ,739	25 7	49 ,799 ,620	373 128,856 50,562	1,168 603,891 256,445

[•] In this table an Industrial Award or Agreement under the Commonwealth Conciliation and Arbitration Act or an Order of the War Precautions Coal Board is counted as one change only, although such Award, Agreement or Order may be operative in more than one State.

4. Changes in Rates of Wage in Male and Female Occupations—Number and Effect of Changes in each State, 1913-1919.—Included in the changes in rates of wage recorded in the tables on page 1078 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 male and female workers affected, etc., are set out hereunder:—

CHANGES IN RATES OF WAGE.—MALE AND FEMALE OCCUPATIONS.—EFFECT OF CHANGES IN EACH STATE AND TERRITORY, 1913 TO 1919.

	OF CII	ANUES I	N EACH	SIAIG	MD IER	KIIUKI,	1910 1	0 1919.	
Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	N. Terr.	All States.*	C'wealth.
		Nu	MBER OF	MALE E	MPLOYEES	AFFECTE	ED.		
1913	83,470	44,692	16,095	3,616	3,036	1,525	1	1	152,434
1914	48,773	25,644	19,628	5,624	7,616	4,232	1	390	111,907
1915	97,672	36,022	21,831	9,807	2,588	2,787	185	10,000	180,892
1916	225,806†	99,667	68,125	39,586	5,669	6,885	249	3,546	449,533
1917	82,601	48,136	63,066	16,844	12,788	4,759	1,143	11,000	240,337
1918	128,728	91,857	59,909	12,889	8,452	3,487	624	616	306,562
1919	253,077	106,389	99,167	32,162	24,185	13,906	1,287	2,025	532,198
	NE	T AMOUNT	r of Inci	REASE PEI	R WEEK	ro Male	EMPLO	YEES.	
	£	£	£	£	£	£	£	£	£
1913	20,682	9,317	3,647	1,127	428	512		i	35,713
1914	12,158	6,146	5,055	1,941	2,157	797		143	28,397
1915	26,975	7,572	6,250	3,431	545	730	87	2,938	48,528
1916	53,395	26,877	39,874	9,774	1,414	1,937	82	1,593	134,946
1917	25,773	11,080	17,106		3,329	1,878	635	4,800	69,845
1918	29,410	22,574		3,311	1,889	1,284	273	239	75,166
1919	132,237	38,115	38,200	10,690	9,560	6,560	618	920	236,900
	Aver	AGE INCR	EASE PER	HEAD P	er Week	TO MALI	E EMPL	OYEES.	
	s. d.	s. d.	s. á.	s. d.	s. d.	, s. d.	s. d.	s d.	s. d.
1913	4 11	4 2	4 6	6 3	2 10	6 9			4 8
1914	5 0	4 10	5 2	6 11	5 8	3 9		7 4	5 l
1915	5 6	4 2	5 9	7 0	4 3	5 3	9 5	5 11	5 4
1916	4 9	5 5	11 8	4 11	5 0	5 8	6 7	9 0	6 0
1917	6 3	5 7 0	5 5	6 3	5 2	7 11	11 1	8 9	5 10
1918	4 7 10 5	$\begin{array}{c c} 4 & 11 \\ 7 & 2 \end{array}$	5 5 7 8	5 2	4 6	7 4 9 5	8 9	7 9	4 11
1919	10 5	7 2	7 8	6 8	7 11	9 5	9 7	9 1	8 11
		Num	BER OF	FEMALE E	EMPLOYEE	s Affect	ED.		
1913	6,148	4,562	550	958		1,480		l I	13,698
1914	7,696	4,232	570		783	30		i I	13,311
1915	11,588	3,065	1,033	399	73	360			16,518
1916	16,915	20,211	3,954	1,339	179	347	9		42,954
1917	18,557	20,136	9,777	3,365	209	529			52,573
1918	17,671	18,170	14,265	3,350	1,419	144			55.019
1919	26,954	19,304	17,460	3,215	2,488	2,202	<u> </u>	70	71,693
	NET	AMOUNT	of Incre	ASE PER	Week то	FEMALE	Емрьо	YEES.	
	£	£	£	£	£	£	£	£ .	£
1913	1,107	563	55	152		123			2,000
1914	1,400	542	73	l	266	7	::		2,288
1915	2,550	506	148	108	17	48			3,377
1916	3,480	3,689	577	156	26	43	6		7,977
1917	3,123	4,049	2,977	826	78	109			11,162
1918	- 2,784	2,940	3,513	574	244	39		;	10,094
1010	5.405	5.915	5.510	1 900	690	700	1	90	10 545

Note.-For continuation of Table see next page.

689

790

29

19,545

1,299

1919

5,405

5,815

5,518

Changes recorded in this column are common to all States, as the particulars relating to the number
of workpeople affected and the net amount of increase per week in each State were not ascertainable.
 Including four changes which affected 157 workpeople in the Federal Capital Territory.

CHANGES IN RATES OF WAGE.—MALE AND FEMALE OCCUPATIONS.— EFFECT OF CHANGES IN EACH STATE AND TERRITORY, 1913 TO 1919—continued.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	N. Terr.	All States.*	C'wealth.
	Avera	GE INCRE	ASE PER	HEAD PE	R WEEK	го Гемаі	е Емрі	OYEES.	
	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
1913	3 7	2 6	2 0	3 2	١	1 8			2 11
1914	3 8	2 7	2 7	1	6 9	4 8			3 5
1915	4 5	3 4	2 10	5 5	4 8	2 8			4 l
1916	4 l	3 8	2 11	2 4	2 11	2 6	13 4		3 9
1917	34	4 0	6 1	4 11	76	4 1	١ ا		4 3
1918	3 2	3 3	4 11	3 5	3 5	5 5			3 8
1919	4 0	6 0	6 4	8 1	5 6	7 2		8 3	5 5

^{*} See footnote on previous page.

5. Methods by which Effected—Commonwealth, 1918 and 1919. 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 1918 and 1919 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, 1918 AND 1919.

									
	Wi	of Work		A	fter Stor	k.		All Chang	ges.
Methods by which Changes were Effected.	No. of Changes.	No. of Work- people Affected.	Total Net Amount of Increase per Week.	No. of Changes.	No. of Work- people Affected.	Total Net Amount of Increase per Week.	No. of Changes.	No. of Work- people Affected.	Total Net Amount of Increase per Week.
		1	918.						
By voluntary action of employers By direct negotiations	14 · 103	12,916 41,085	£ 2,396 8,579	29	2,343	£ 894	14 132	12,916 43,428	£ 2,396 9,473
By negotiations, intervention or assistance of third party By award of Court under Com-	1	544	287	2	47	47	3	- 591	334
monwealth Act* By agreement registered under	3 9	20,502	4,481				39	20,502	4,481
Commonwealth Act* By award or determination under	142	6,764	1,683	••			142	6,764	1,683
State Acts By agreement registered under	353	266,977	63,502	1	3,800	1,140	354	270,777	64,642
State Acts	90	6,337	2,114	5	266	137	95	6,603	2,251
Total*	742	355,125	83,042	37	6,456	2,218	779	361,581	85,260
		1	919.						
By voluntary action of employers By direct negotiations By negotiations, intervention or	36 202	10,285 77,096	4,373 25,796	36	7,439	3,141	36 238	10,285 84,535	4,373 28,937
assistance of third party By award of Court under Com-	18	35,716	20,553	11	9,333	3,680	29	45,049	24,233
monwealth Act*	38	67,166	29,108	4	575	476	42	67,741	29,584
By agreement registered under Commonwealth Act*	140	27,084	9,969	1	160	48	141	27,244	10,017
By award or determination under State Acts	580	336,805	148,087	2	820	545	582	337,625	148,632
By agreement registered under State Acts	98	31,232	10,574	2	180	95	100	31,412	10,669
Total*	1,112	585,384	248,460	56	18,507	7,985	1,168	603,891	256,445

^{*} In this section of the table an Award or Agreement under the Commonwealth Conciliation and Arbitration Act, the Commonwealth (Public Service) Arbitration Act or an Order of the War Precautions Coal Board is counted as one change only, although such Award, Agreement, or Order may be operative in more than one State.

The total number of changes recorded during the year 1919 was 1,168, of which 582 or almost 50 per cent. of the total number were brought about by award or determination under State Industrial Acts. The number of workpeople who were affected by these changes was 337,625, and the total amount of increase per week in wages was £148,632. Of these 582 changes, 271 occurred in New South Wales, 61 in Victoria, 155 in Queensland, 50 in South Australia, 24 in Western Australia, and 21 in Tasmania. The number of changes in rates of wage which were recorded as having been made by awards or variations of awards under the provisions of the Commonwealth Conciliation and Arbitration Act was 42, as compared with 39 during the previous year. Direct negotiations between representatives of employers and employees brought about 238 changes in rates of wage during the year. A large number of industrial agreements were filed under the provisions of the Commonwealth and State Acts during the twelve months under review. Fiftysix changes in rates of wage were arranged after stoppages of work. The number of workpeople affected by these changes was 18,507.

(ii) Changes in Rates of Wage and Methods by which Effected—Commonwealth, 1913-1919. Comparative particulars are contained in the following table of the total number and effect of all changes in rates of wage brought about throughout the Commonwealth during the years indicated, as a result of the application of one or other of the specified methods:—

CHANGES IN RATES OF WAGE, CLASSIFIED ACCORDING TO METHODS BY WHICH EFFECTED—COMMONWEALTH, 1913 AND 1916 TO 1919.

Particulars.	By Voluntary Action of Employers.	By Direct Negotiations.	By Negotiations, Intervention or Assistance of Third Party.	By Award of Court under C'wealth Act.	By Agreement Registered under C'wealth Act.	By Award or Determination under State Act.	By Agreement Registered under State Act.	TOTAL.*
1913. Number of Changes Number of Workpeople affected Amount of Increase per week £	2 12,011 1,543	30 4,336 1,120	101 20	3 4,487 1,679	24 3,387 831	213 136,702 31,328	36 5,108 1,192	312 166,132 37,713
1916. Number of Changes Number of Workpeople affected Amount of Increase per week £	51	175	9	17	30	467	72	821
	55,560	46,633	4,984	40,978	25,081	305,340	13,911	492,487
	10,831	12,114	1,518	14,985	6,800	94,005	2,690	142,923
1917. Number of Changes Number of Workpeople affected Amount of Increase per week £	24 9,531 3,097	75 15,827 5,429	14 19,500 10,996	35 20,759 7,654	28 16,443 5,579	310 198,723 44,477	88 12,127 3,775	574 292,910 81,007
1918. Number of Changes Number of Workpeople affected Amount of Increase per week £	14	132	3	39	142	354	95	779
	12,916	43,428	591	20,502	6,764	270,777	6,603	361,581
	2,396	9,473	334	4,481	1,683	64.642	2,251	85,260
Number of Changes Number of Workpeople affected Amount of Increase per week £	36	238	29	42	141	582	100	1,168
	10,285	84,535	45,049	67,741	27,244	337,625	31,412	603,891
	4,373	28,937	24,233	29,584	10,017	148,632	10,669	256,445

[•] See footnote to table on page 1080.

It will be seen from the foregoing table that the greatest number of changes throughout the period under review was effected through the instrumentalities of the State Acts, though in relation to the total business the activities of the State organizations shew a decline from 80 per cent. of all changes in 1913 to 58 per cent. in 1919, while the changes made under the Commonwealth Acts have increased from 8.7 per cent. to 15.6 per cent. It is interesting to observe the very marked extent to which "direct negotiation" between parties has been resorted to in the later years. In 1913, only 30 changes, or less than 10 per cent. of the total, affecting only 2.6 per cent. of all persons concerned in the changes of that year, were brought about by direct negotiations, whereas in 1919, 238 changes (20 per cent.), affecting 84,535 persons, or 14 per cent. of the whole, resulted from this agency. It must be mentioned that, so far as possible, the effect of awards or agreements is recorded in the figures for the year in which such awards or agreements are made and filed. In certain cases, however, the awards or agreements are made retrospective as to the date on which the increased rate of wage has to be paid, while in others the particulars as to the number of workpeople affected and the effect of the change are difficult to ascertain.

§ 6. Industrial Disputes.

1. General.—Information with regard to the collection of particulars and methods of tabulation of industrial disputes involving stoppage of work 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 Bureau.

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

2. Comparative Summary of Disputes (involving Stoppage of Work), 1913 to 1919.— The systematic collection of information as to industrial disputes (causing a stoppage of work) throughout the Commonwealth was first undertaken as from the 1st January, 1913, and particulars concerning disputes 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 various years from 1913 to 1919, 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 AND 1916 TO 1919.

			Establish-	No. of Wo	rkpeople	Involved.		l
	ŀ		ments	1			NO. 01	Total
State or Territory.	Year.	No. of	Involved	, ,	T_		Working	Estimated
		Disputes.	in	Directly.	In- directly.	Total.	Days	Loss in
	1	ļ	Disputes.		directly.		Lost.	Wages.
								e -
r	1913	134	466	25,647	14,364	40,011	468,957	216,368
1	1916	336	717	91,762	31,638	123,400	1,145,222	674,064
New South Wales	1917	296	918	118,515	15,508	134,023	3,308,869	1,929,405
1	1918	138	182	24,417	8,624	33,041	181,639	112.894
ì	1919	267	678	64,956	35,040	99,996	3,669,186	2,397,259
ጎ	1913	29	63	4,151	2,026	6,177	85,212	35,744
1	1916	55	449	13,576	2,092	15,668	228,269	114,683
Victoria	1917	52	636	15,976	2,114	18,090	760,410	378,946
	1918	33	190	4,235	1,513	5,748	165,020	99,346
i	1919	62	372	15,169	7,437	22,606	733,333	392,796
٠ رُ	1913	17	20	1,781	225	2,006	55,288	28,374
)	1916	64	252	17,367	2,951	20,318	170,690	96,976
Queensland	1917	39	202	12,074	971	13,045	317,699	178,125
i	1918	84	696	8,803	1,875	10,678	183,883	131,142
į	1919	69	295	9,078	6,336	15,414	586,661	327,537
ſ	1913	9	13	272	16	288	2,412	1,029
	1916	21	45	1,037	606	1,643	10,583	6,004
South Australia	1917	24	44	3,958	146	4,104	57,446	30,306
1	1918	17	25	1,576	429	2,005	18,276	10,515
Į	1919	32	75	4,437	3,409	7,846	238,378	127,303
. [1913	9	324	967		967	6,772	3,515
Waster & Co.	1916	24	35	4,318	4,782	9,100	102,357	64,325
Western Australia	1917	23	128	2,401	547	2,948	102,078	53,004
Į	1918	22	56	3,368	1,435	4,803	31,145	17,792
Ţ	1919	20	157	5,516	4,460	9,976	359,987	213,867
[1913	8	30	444	20	464	987	434
Tasmania	1916	6	36	366	68	434	21,389	11,207
rasmana	1917 1918	8	11	1,062 42	623	1,685 42	52,541 462	24,502 250
1	1919	5	1 1 2 2	1.098	588	1,686	63,271	32,738
,	1913	1	127	100	100	200	1,400	600
1	1916	_	1	1	100			
Fed. Cap. Territory	1917		• • •	::	• • •		::	l
rea. oap. rentiory	1918	::		::	• •		::	
·	1919	1 ::		1				
.خ	1913	``1	4	131	39	170	2,500	1,675
i	1916	2	. 2	120		120	420	345
Northern Territory	1917	2	2	75		75	615	520
	1918	3	4	112	10	122	428	395
i	1919	5	9	46	21	67	1,910	1,436
•							<u> </u>	
(1913	208	921	33,493	16,790	50,283	623,528	287,739
. 1	1914	337	1,203	43,073	27,976	71,049	1,090,395	551,228
	1915	358	942	57,005	24,287	81,292	583,225	299,633
Commonwealth {	1916	508	1,536	128,546	42,137	170,683	1,678,930	967,604
	1917	444	1,941	154,061	19,909	173,970	4,599,658	2,594,808
ļ	1918	298	1,154	42,553	13,886	56,439	580,853	372,334
<u> </u>	1919	460	1,713	100,300	57,291	157,591	5,652,726	3,492,936

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 that particulars relating to the same dispute would probably occur in two successive years.

It may be seen from the foregoing table that industrial disputes throughout the Commonwealth were most frequent during the year 1916. The number of workpeople involved in disputes during 1916 and 1917 increased to an enormous extent, while the losses in working days and wages were considerably in excess of such losses during any previous yearly period. The figures for 1917 are swollen by the effects of the dispute at the Government Railway Workshops in New South Wales in connexion with the introduction of the "card system." The dislocation of industry due to this dispute is the most extensive which has been recorded by the Bureau since the systematic collection of particulars was undertaken at the beginning of the year 1913. After careful consideration of the data it was ascertained that 79 disputes throughout the various States were directly associated with the action of the employees at the Government Railway Workshops. The originating dispute, which commenced on the 2nd August, 1917, when the employees at the workshops ceased work as a protest against the introduction of a time-card system, rapidly extended to other industries throughout the Commonwealth. Railway employees in other branches of the service, coal and metalliferous miners, seamen, waterside workers, and others left work, mostly in sympathy with the railway men, while other workers, including carters, storemen, and artificial manure makers, refused to handle "black" goods and coal. Of the 79 disputes, which were the outcome of the original stoppage, 52 occurred in New South Wales; 18 in Victoria; 3 in South Australia; and 2 in each of the remaining States. total number of workpeople involved in these dislocations was 97,507, the loss in working days was 3,982,250, with a consequent estimated loss in wages of £2,233,000. In addition a large number of employees in various industries, though not directly connected with the dispute, were thrown out of work by the restrictions placed upon the use of coal, gas and electricity.

The figures for 1914 and 1916 were inflated by disputes in the coal mining industry. In the earlier year, there was a protracted dispute in New South Wales through the refusal of the miners to work the afternoon shift. The estimated loss incurred was 523,000 working days, representing £259,000 in wages. In 1916 the coal mining employees in New South Wales, Victoria, Queensland, and Tasmania ceased work over the question of the "eight hours bank to bank." The loss on this occasion was 409,000 working days, equivalent to £240,850 in wages.

In regard to extensive dislocations of industry which occurred prior to the institution of systematic inquiries by the Bureau, efforts have been made to obtain statistical data relating to the shearers' disputes in 1890, 1891 and 1894, and also concerning the number of workpeople involved and the losses caused by the maritime dispute in the early part of 1891, but precise information is not obtainable.

The proportion of disputes in each State expressed as a percentage on the total for the Commonwealth is as follows:—

PROPORTION	DEB	CENT	OF	DISPUTES	IN THE	LARGER	STATES	. 1913 TO 1919.	

State.	1913.	1914.	1915.	1916.	1917.	1918.	1919.
New South Wales Victoria	65 14 8 13	70 13 5 12	76 11 5 8	66 11 13 10	69 12 9 10	46 11 28 15	58 13 15 14
Commonwealth	100	100	100	100	100	100	100

Although the number of disputes in 1919 was less than that in 1916, and the number of workpeople involved was less than in either of the years 1916 and 1917, yet, measured by the loss of time and wages, the disruption to industry which occurred during 1919 was the most serious which the Commonwealth has experienced since records of such

matters were instituted in 1913. Prior to 1919 the most serious loss in wages was incurred in 1917, when it amounted to £2,594,808, a sum outstanding in its magnitude as compared with other years. In 1919, however, this amount was exceeded by £898,128, the estimated loss in wages being £3,492,936, representing 5,652,726 working days. The more important of the disputes which contributed to this loss were the disputes of the miners at Broken Hill (who ceased work during the second quarter of 1919 and had not resumed at the end of June, 1920) and of the seamen and marine engineers. Particulars of these disputes are given in section 12 of Labour Report No. 10.

It is, of course, obvious that the mere number of disputes cannot by itself be accepted as a proper basis of comparison, nor does the number of workpeople afford a satisfactory basis. A better idea as to the significance and effect of industrial disputes may be obtained from the number of working days lost and the estimated loss in wages.

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 stoppages 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 1918 and 1919.—The following table gives particulars of disputes in the Commonwealth during the years 1918 and 1919, classified according to industrial groups. The system of classification selected is similar to that adopted in connexion with labour organisations, unemployment, rates of wage, etc. (see Report No. 10, Labour and Industrial Branch, page 9).

INDUSTRIAL DISPUTES IN THE COMMONWEALTH, CLASSIFIED ACCORDING TO INDUSTRIAL GROUPS, 1918 AND 1919.

. Industrial Group.		. of outes.	No. of Work- people involved in Disputes.		Worki	o. of ng Days ost.	Total Estimated Loss in Wages.	
•	1918.	1919.	1918.	1919.	1918.	1919.	1918.	1919.
							£	£
I. Wood, Furniture, Timber, etc.	4	7	272	134				
II. Engineering, Metal Works, etc.	10	15	3,477		168,167	18,147		
III. Food, Drink, etc	36	39	5,276	12,080		198,920	40,759	124,422
IV. Clothing, Hats, Boots, etc	7	2	355					
VI. Other Manufacturing	20	31	1,092	5,091	10,833			
VII. Building	11	12	685	2,810				
VIII. Mines, Quarries, etc	135	231	35,149	86,607	219,293	2,718,074		1,905,075
IX. Rail and Tramway Services	16	21	2,345					
X. Other Land Transport	1	5	60	683				
XI. Shipping, Wharf Labour	14	41	4,102			2,271,030		1,182,933
XII. Pastoral, Agricultural, etc	24	24	1,985		49,539			
XIII. Domestic, Hotel, etc	3	5	62	287				
XIV. Miscellaneous	17	27	1,579	5,694	15,646	129,114	10,382	83,620
Commonwealth, All Groups	298	460	56,439	157,591	580,853	5,652,726	372,334	3,492,936

Attention has frequently been drawn to the preponderating influence exercised by disputes in the coal-mining industry in New South Wales on the total number of industrial disputes. In making any comparison as to the number of disputes in this industrial class in each State, it should be observed that while the number of workers engaged in the mining industry is very much larger in New South Wales than in any of the other States, nevertheless the total number of disputes recorded in that State is somewhat greater than in any other State. Of the 2,613 disputes recorded in the Commonwealth for the seven years 1913–19, 1,299 or 49.7 per cent. were connected with the industries included in Group VIII., Mines, Quarries, &c.

4. Duration of Industrial Disputes in the Commonwealth, 1919.—In the following table particulars are given with respect to the number of disputes, workpeople directly and indirectly involved, working days lost, and estimated amount of loss in

wages respectively, consequent on the cessations of work which were recorded for the Commonwealth during the year 1919, classified under the adopted limits of duration:—

DURATION OF INDUSTRIAL DISPUTES IN THE COMMONWEALTH, 1919.

	No. of	No. of V	Vorkpsople I	nvolved.	Number	Total Estimated
Limits of Duration.	Dis- putes.	Directly.	Indirectly.	Total.	Working Days Lost.	Loss in Wages.
						£
1 day and less	154	29,218	11,825	41,043	40,977	35,639
2 days and more than 1 day	59	10,973	2,767	13,740	26,561	20,210
3 days and more than 2 days	36	6,724	3,149	9,873	29,371	20,944
Over 3 days and less than 1			}		1	
week (6 days)	52	9,165	1,815	10,980	48,935	36,147
I week and less than 2 weeks	68	15,670	2,171	17,841	132,501	86,101
2 weeks and less than 4 weeks	32	4,852	7,312	12,164	166,998	102,428
4 weeks and less than 8 weeks	26	4,707	3,281	7,988	247,106	159,921
8 weeks and over	33	18,991	24,971	43,962	4,960,277	3,031,546
Total	460	100,300	57,291	157,591	5,652,726	3,492,936

Note.—Similar figures for the years 1913 to 1918 will be found in previous issues of the Year Book and also in the Labour Reports.

5. Industrial Disputes, Classified as to Causes, Commonwealth, 1913-1919.—The following table shews the number of disputes, number of workpeople involved, and the total number of working days lost in disputes which commenced during the years 1913 to 1919, classified according to principal cause:—

CAUSES OF INDUSTRIAL DISPUTES IN THE COMMONWEALTH, 1913 TO 1919.

Causes of Disputes.	.1913.	1914.	1915.	1916.	1917.	1918.	1919.
	N	UMBER OF	Disputi	ss.			
Wages-							
(a) For increase	42	50	73	125	53	54	91
(b) Against decrease	4	3	10	7	1	4	
(c) Other wage questions	31	67	46	96	69	69	10
Hours of Labour—	1						
(a) For reduction	3	1	3	16	2	1	
(b) Other disputes re hours	7	13	6	5	8	11	
Trades Unionism—	ł	- 1	i			ì	
(a) Against employment	_ 1			1		_	_
of non-unionists	8	13	19	14	26	7	1
(b) Other union questions	5	11	16	8	32	19	2
Employment of particular			70		00	92	
Classes or Persons	44 51	83	76 76	83 90	90 81	92 34	11
Working Conditions	5	'2	6	20	57	34	5
044 0	8	21	27	44	25	6	2
Other Causes			- 41	44			
Total	208	337	358	508	444	298	46
1	TUMBER	of Work	PEOPLE 1	NVOLVED.			
	Number	of Work	PEOPLE 1	NVOLVED.	· · · · · · · · · · · · · · · · · · ·		
Wages					7.135	7.095	58.53
Wages— a) For increase	8,633	7,362	18,783	30,193	7,135 21	7,095 57	
Wages— a) For increase b) Against decrease	8,633 563	7,362 534	18,783 1,113	30,193 1,051	21	57	66
Wages a) For increase b) Against decrease c) Other wage questions	8,633	7,362	18,783	30,193			66
Wages a) For increase b) Against decrease c) Other wage questions Hours of Labour	8,633 563	7,362 534	18,783 1,113	30,193 1,051	21	57	26,25
Wages— a) For increase b) Against decrease c) Other wage questions Hours of Labour— (a) For reduction (b) Other disputes rehours	8,633 563 7,160	7,362 534 15,243	18,783 1,113 11,990	30,193 1,051 23,507	21 18,894	57 12,737	26,25 5
Wages— a) For increase b) Against decrease c) Other wage questions Hours of Labour— (a) For reduction (b) Other disputes rehours Trades Unionism—	8,633 563 7,160 460	7,362 534 15,243	18,783 1,113 11,990 896	30,193 1,051 23,507 24,481	21 18,894 1,004	12,737 26	26,25 5
Wages— a) For increase b) Against decrease c) Other wage questions Hours of Labour— (a) For reduction (b) Other disputes rehours Trades Unionism— (a) Against employment	8,633 563 7,160 460 1,819	7,362 534 15,243 220 3,237	18,783 1,113 11,990 896 2,643	30,193 1,051 23,507 24,481 579	18,894 1,004 2,576	57 12,737 26 4,214	66 26,22 5 9
Wages— a) For increase b) Against decrease c) Other wage questions Hours of Labour— (a) For reduction (b) Other disputes rehours Trades Unionism— (a) Against employment of non-unionists	8,633 563 7,160 460 1,819	7,362 534 15,243 220 3,237	18,783 1,113 11,990 896 2,643	30,193 1,051 23,507 24,481 579	21 18,894 1,004 2,576 6,182	57 12,737 26 4,214 710	9,00
Wages— a) For increase b) Against decrease c) Other wage questions Hours of Labour— (a) For reduction (b) Other disputes rehours Trades Linionism— (a) Against employment of non-unionists (b) Other union questions	8,633 563 7,160 460 1,819	7,362 534 15,243 220 3,237	18,783 1,113 11,990 896 2,643	30,193 1,051 23,507 24,481 579	18,894 1,004 2,576	57 12,737 26 4,214	9,00
Wages— a) For increase b) Against decrease c) Other wage questions Hours of Labour— (a) For reduction (b) Other disputes rehours Trades Unionism— (a) Against employment of non-unionists (b) Other union questions Employment of particular	8,633 563 7,160 460 1,819 5,370	7,362 534 15,243 220 3,237 5,807 1,593	18,783 1,113 11,990 896 2,643 3,873 3,739	30,193 1,051 23,507 24,481 579 1,178	21 18,894 1,004 2,576 6,182 17,320	710 6,673	9,00
Wages— a) For increase b) Against decrease c) Other wage questions Hours of Labour— (a) For reduction (b) Other disputes rehours Trades Unionism— (a) Against employment of non-unionists (b) Other union questions Employment of particular Classes or Persons	8,633 503 7,160 460 1,819 5,370 1,418	7,362 534 15,243 220 3,237 5,807 1,593 14,663	18,783 1,113 11,990 896 2,643 3,873 3,739	30,193 1,051 23,507 24,481 579 1,178 1,167	21 18,894 1,004 2,576 6,182 17,320 15,445	710 6,673 14,576	9,00 17,50
Wages— a) For increase b) Against decrease c) Other wage questions Hours of Labour— (a) For reduction (b) Other disputes rehours Trades Unionism— (a) Against employment of non-unionists. (b) Other union questions Employment of particular Classes or Persons Working Conditions	8,633 563 7,160 460 1,819 5,370 1,418 11,370 10,785	7,362 534 15,243 220 3,237 5,807 1,593 14,863 17,053	18,783 1,113 11,990 896 2,643 3,873 3,739 13,844 16,114	30,193 1,051 23,507 24,481 579 1,178 1,167 15,910 20,516	21 18,894 1,004 2,576 6,182 17,320 15,445 19,021	710 6,673 14,576 7,757	9,00 17,50 21,41
Wages— a) For increase b) Against decrease c) Other wage questions Hours of Labour— (a) For reduction (b) Other disputes rehours Trades Unionism— (a) Against employment of non-unionists. (b) Other union questions Employment of particular Classes or Persons Working Conditions Sympathetic	8,633 503 7,160 460 1,819 5,370 1,418 11,370 10,785 947	7,362 534 15,243 220 3,237 5,807 1,593 14,663 17,053 675	18,783 1,113 11,990 896 2,643 3,873 3,739 13,844 16,114	30,193 1,051 23,507 24,481 579 1,178 1,167 15,910 20,516 4,191	21 18,894 1,004 2,576 6,182 17,320 15,445 19,021 76,076	710 6,673 14,576 7,757 200	9,00 21,44 11,50 3,00
Wages— a) For increase b) Against decrease c) Other wage questions Hours of Labour— (a) For reduction (b) Other disputes rehours Trades Unionism— (a) Against employment of non-unionists. (b) Other union questions Employment of particular Classes or Persons Working Conditions	8,633 563 7,160 460 1,819 5,370 1,418 11,370 10,785	7,362 534 15,243 220 3,237 5,807 1,593 14,863 17,053	18,783 1,113 11,990 896 2,643 3,873 3,739 13,844 16,114	30,193 1,051 23,507 24,481 579 1,178 1,167 15,910 20,516	21 18,894 1,004 2,576 6,182 17,320 15,445 19,021	710 6,673 14,576 7,757	58,55 66 26,22 57 9,00 17,50 21,44 11,58 3,08 7,97

Total

CAUSES OF INDUSTRIAL DISPUTES IN THE COMMONWEALTH, 1913 TO 1919—continued.

Causes of Disputes.	1913.	1914.	1915.	1916.	1917.	1918.	1919.
	Number	of Wor	KING DA	ys Lost.	•		
1. Wages—		}					}
(a) For increase	100,069	99,451	190,645	592,625	56,083	198,323	4,749,08
(b) Against decrease	9,438	32,965	12,555	6,192	42	316	10,01
(c) Other wage questions	78,183	169,847	133,606	143,248	225,080	97,561	96,11
2. Hours of Labour—				-			
(a) For reduction	2,774	9,240	836	583,052	78,016	312	
(b) Other disputes re hours	15,111	16,855	23,374	1,598	62,560	20,551	15,76
3. Trades Unionism—					l	1	i
(a) Against employment						1	
of non-unionists	91,002	92,720	31,145	48,881	87,600	21,894	
(b) Other union questions	32,388	6,968	7,434	10,276	572,949	24,341	329,20
4. Employment of particular						1	
Classes or Persons	191,723	64,367	77,862	70,452	47,297	113,466	
5. Working Conditions	73,562	584,289	82,322	81,511	211,971	93,468	
3. Sympathetic	24,066	2,125	6,004	75,447	3,239,798	7,200	
7. Other Causes	5,212	11,568	17,442	65,648	18,262	3,421	23,00

623,528 1,090,395 | 583,225 | 1,678,930 | 4,599,658 | 580,853 | 5,652,726

It will be observed from the above table that the main causes of industrial disputes are "Wage" questions, "Working Conditions," and "Employment of Particular Classes or Persons." In each of the seven years, 1913-1919, the number of dislocations concerning wages exceeded those caused by any other question, having varied between a minimum proportion of 28 per cent. in 1917 and a maximum of 45 per cent. in 1916. The proportion attributed to this cause in 1919 was 44 per cent. The majority of the disputes classified under the heading, "Employment of Particular Classes or Persons," are stoppages of work for the purpose of protesting against the dismissal of certain employees, who, in the opinion of their fellow-workers, have been unfairly treated or victimised. This class of dispute occurs very frequently in the coal mining industry. The number of disputes over "Trade Union" questions and "Hours of Labour" has represented a fairly uniform proportion of the total number of disputes during the years under review. "Sympathetic" disputes were numerous during the years 1916 and 1917. The figures for the latter year were abnormal in comparison with the other periods. It may be mentioned, however, that the disputes which arose during that year in connection with the "time-card system" dispute were responsible for the increase in the number.

6. Results of Industrial Disputes, Commonwealth, 1913-19.—The following table shews the number of disputes, number of workpeople involved, and the number of working days lost in disputes throughout the Commonwealth during the seven years 1913-19, classified according to results:—

INDUSTRIAL DISPUTES CLASSIFIED ACCORDING TO RESULTS, COMMONWEALTH, 1913 TO 1919.

	No	o, of I	Dispute	es.	Numbe	Number of Workpeople Involved Total Number of Working by Disputes.					orking loutes.	ng Days Lost		
Year.	In Favour of Workpeople.	In Favour of Employer.	Compromise.	Indefinite.	In Favour of Workpeople.	In favour of Employer.	Compromise.	Indefinite.	In Favour of Workpeople.	In Favour of Employer.	Compromise.	Indefinite.		
1913	67	64	66	11	10,914	12,211	24,826	2,332	59,823	104 654	433,014	26,037		
1914	118	98	110	11	21,224	18,242	30,396	1,187	129,995		829,265			
1915	190	78	68	22	44,140	15,327	14,860	6,965	245,625		151,544			
1916	223	178	84	23	70,588	36,670	23,296	40,129	886,010		476,302			
1917	147	188	100	9	24,331	119,589	22,310	7,740	103,267	4,201,981				
1918	92	100	93	13	13,780	15,998	23,739	2,922	101,207		280,045			
1919	154	157	139	10	54,810	43,140	47,995	11,646	2,398,252	406,361	635,671	2,212,442		

1

It will be seen from the above table that, during the years 1913, 1914, 1915, and 1916 the disputes resulting in favour of workpeople exceeded those resulting in favour of employers. During 1917, 1918, and 1919, however, the position was reversed. A considerable number of disputes in each year resulted in a compromise, while certain disputes resulted in such a manner that they could not be definitely classed as in favour of either party. The exceptionally heavy loss of working days shewn under the heading "Indefinite" in the above table is due to the dispute affecting miners and others at Broken Hill, which had not terminated when the tabulations were closed.

7. Methods of Settlement of Industrial Disputes, Commonwealth, 1913-19.—The following tables show the number of disputes, number of workpeople involved, and number of working days lost in industrial disputes during the seven years 1913-19, classified for the Commonwealth according to the adopted schedule of methods of settlement:—

METHODS OF SETTLEMENT OF INDUSTRIAL DISPUTES, COMMONWEALTH, 1913 TO 1919.

Methods of Settlement,	1913.	1914.	1915.	1916.	1917.	1918.	1919.
	Number	of Dis	PUTES.				
Negotiations— Direct between employers and employees or their representatives. By intervention or assistance of	. 119	247	254	319	234	171	291
distinctive third party—not under Commonwealth or State Indus- trial Act Under State Industrial Acts—	17	11	29	34	. 38	21	35
By intervention, assistance, or com- pulsory conference. By reference to Board or Court Under Commonwealth Conciliation and Arbitration Act—	19 22	7 17	3 5	9 10	12 13	. 20 14	33 5
By intervention, assistance, or com- pulsory conference	4	5	2	6	3	8	9
By Filling Places of Workpeople on Strike or Locked Out	13	16	9	18	36	26	22
By Closing-down Establishment Permanently	1 13	4 30	1 55	6 106	4 104	8 30	7 58
Total	208	337	358	508	444	298	460

Number of Workpeople Involved.

		1	1	1	1	í	
Negotiations— Direct between employers and employees or their representatives By intervention or assistance of	23,357	48,204	54,242	68,841	49,512	34,680	76,070
distinctive third party—not under Commonwealth or State Indus- trial Act Under State Industrial Act—	3,172	8,054	6,170	32,043	23,338	4,155	47,849
By intervention, assistance, or compulsory conference By reference to Board or Court Under Commonwealth Conciliation and Arbitration Act—	6,505 12,774	770 7,308	1,515 815	2,117 2,291	6,295 2,779	2,958 3,392	6,926 1,380
By intervention, assistance, or com- pulsory conference	659	205	2,919	1,110	1,490	3,042	1,997
By Filling Places of Workpeople on Strike or Locked Out	658	629	205	413	17,780	1,933	2,202
By Closing-down Establishment Permanently By other Methods	170 2,988	86 5,793	200 15,226	150 63,718	434 72,342	538 5,741	401 20,766
Total	50,283	71,049	81,292	170,683	173,970	56,439	157,591

METHODS OF SETTLEMENT OF INDUSTRIAL DISPUTES, COMMONWEALTH, 1913 TO 1919—continued.

The second secon						1	i'
Methods of Settlement.	1913.	1914.	1915.	1916.	1917.	1918.	1919.
•							<u> </u>

NUMBER OF WORKING DAYS LOST.

Negotiations—	i						
Direct between employers and em-							
ployees or their representatives	94,400	803,799	384,425	563,828	551,484	222,846	632,269
By intervention or assistance of	1		'		1		ì
distinctive third party-not under	1				l i		
Commonwealth or State Indus-	26,335	128,231	56,126	812,763	863,896	37 444	4,724,155
trial Act Under State Industrial Act—	20,000	120,201	30,120	012,100	000,000	01,111	2,122,100
By intervention, assistance, or com-							
pulsory conference	187,871	4,256	20,537	31,696	159,799	57,559	94,557
By reference to Board or Court	221,769					151,472	
Under Commonwealth Conciliation and					i i	-	
Arbitration Act—	! !						
By intervention, assistance, or com-	!						
pulsory conference	2,105	1,421	26,883	20,697	33,396	23,289	74,018
By Filling Places of Workpeople on	1	4 400	1.500	0.000	000 500	0,5000	40,000
Strike or Locked Out	14,139	4,402	1,533	9,060	908,596	35,298	46,029
By Closing down Establishment Per-	20,400	3,646	19,600	2,776	11,392	4.270	5,737
manently	56,509	23,955			2,022,743		
By other Methods	30,309	20,000	00,100	100,000			07,001
Total	623,528	1,090,395	583 225	1,678,930	4 599 658	580 853	5.652.726

In the above tables the methods of settlement of all disputes recorded during the past seven years are set out in comparative form. In all years it will be observed that direct negotiations between the employers and employees settled the majority of the disputes. The proportion of disputes so settled ranges between a minimum of 53 per cent. in 1917 and a maximum of 73 per cent. in 1914; in 1919 the proportion was 63 per cent. numbers of dislocations which have been settled by compulsory conferences or the intervention and assistance of officials under State or Commonwealth Arbitration Acts have not varied greatly during the period under review. In connexion with the comparatively large numbers of disputes which are classified as having been settled "By other methods," it must be mentioned that a large number of stoppages of work occur each year, principally at the collieries, without any cause for such stoppages being brought officially under the notice of the employers or their representatives. Such stoppages usually last for one day, and work is resumed without any negotiations for a settlement of the trouble which caused the stoppage. The mining dispute at Broken Hill was unsettled when the tabulations relating to dislocations of work during the year 1919, were closed. In the above table, the figures relating to this particular dispute are included in the totals shewn against the method of settlement "by intervention or assistance of a distinctive third party-not under Commonwealth or State Industrial Act."

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

1. Introduction.—In Labour 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. A detailed examination of the theory upon 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, 7, 8, 9, and 10, results of further investigations were included, and in Labour Bulletins Nos. 1 to 18, and in Quarterly Summaries of Statistics, Nos. 70 to 78, information was incorporated regarding variations in retail and wholesale prices, house-rent, and purchasing-power of money up to the end of 1919.

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 selected year as "base," that is, making the expenditure in that year equal to 1,000 units, the relative expenditure in any other year, that is to say, the "index-numbers," are readily ascertained. examples of the technique and methods adopted for the computation of index-numbers were given in Report No. 2 (pp. 44 and 45), and in Report No. 9 Appendixes I. to IV., pp. 174 to 229.

- 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 careful distinction must be drawn between two things, viz. :—
 - (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 the selection of a suitable list of commodities, the quantities of each being taken in due proportion to their relative average consumption. The quantities in this list being kept constant, the cost of the whole group must then be ascertained. In this way a comparison may be made of 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 30 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 purchasingpower of money are concerned.

In Report No. 10 (page 26), a tabular statement was given furnishing particulars of the commodities 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 1919.—In Labour Reports and Bulletins, and in recent issues of the Quarterly Summaries of Statistics, index-numbers 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 (=1,000). 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 (=1,000). 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:—

RETAIL PRICES IN METROPOLITAN TOWNS, INDEX-NUMBERS FOR GROCERIES AND FOOD (GROUPS I., II., AND III.), 1901 TO 1919.

Town.	-	1901.	1906.	1910.	1911.	1912.	1913.	1914.	1915.	1916.	1917.	1918.	1919.
- · - ·	_				ļ								
Sydney Melbourne Brisbane Adelaide Perth Hobart		917 965 965 1,028 1,184 1,011	964 945 959 982 1,237 1,047	1,000 960 1,000 1,001 1,251 1,073	989 935 1,018 1,020 1,346 1,058	1,124 1,082 1,102 1,154 1,345 1,190	1,131 1,024 1,042 1,119 1,267 1,164	1,156 1,091 1,078 1,215 1,302 1,212	1,396 1,411 1,373 1,487 1,483 1,445	1,520 1,462 1,426 1,532 1,542 1,523	1,540 1,412 1,406 1,445 1,505 1,544	1,549 1,466 1,495 1,554 1,486 1,635	1,783 1,620 1,762 1,719 1,772 1,748
Weighted Average*		972	980	1,005	1,000	1,129	1,095	1,144	1,416	1,495	1,472	1,514	1,716

^{*} 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 £1,000 in the capital towns considered as a whole in 1911, would have cost £917 in Sydney in 1901, £1,346 in Perth in 1911, or £1,620 in Melbourne in 1919.

The weighted average retail price index-numbers for the six capital cities shew that the upward tendency of prices was temporarily arrested on two occasions since 1911—first in 1913, and, again, in 1917. The first instance was mainly due to a fall in the prices of sugar, potatoes, and butter; while in 1917 bread, flour, potatoes, milk, and beef were the more important items which contributed to the decline. The movement indicated was, with four exceptions, common to all the capital cities. The prices for Sydney show a rise in every year since 1911; in 1917 Sydney and Hobart constituted exceptions to the decline experienced in all the other capitals; while in 1918 the figures for Perth only shewed a decline. In 1919 increases were experienced in all the cities concerned. Comparing the results for 1919 with those for 1911 it will be seen that the extent, by which prices increased, varied from 80 per cent. in Sydney to 32 per cent. in Perth. It will be noticed, however, that prices were abnormally high in Perth in 1911. Disregarding Perth, it will be found that the variation between the other cities—which were, substantially, on an equality in 1911—is not more than 15 per cent., the extremes being 80 per cent. in Sydney and 65 per cent. in Hobart.

(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 1919, taking the average rent for the six capital towns in 1911 as the base (=1,000). 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. The 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, 7, 8, 9, and 10, 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 TO 1919.

Town.		1901.	1906.	1910.	1911.	1912.	1913.	1914.	1915.	1916.	1917.	1918.	1919.
Sydney Melbourne Brisbane Adelaide Perth Hobart	•••	858 733 488 629 801 667	891 782 524 761 716 686	988 916 700 1,018 696 776	1,090 970 767 1,112 810 805	1,183 1,016 804 1,160 880 829	1,246 1,089 863 1,125 928 887	1,279 1,126 882 1,040 914 914	1,220 1,085 859 932 848 928	1,212 1,089 847 930 869 928	1,215 1,124 859 959 874 951	1,252 1,180 905 1,022 885 956	1,289 1,283 983 1,108 916 1,134
Weighted Average*		751	793	919	1,000	1,063	1,118	1,135	1,081	1,081	1,098	1,143	1,215

* For all capital towns.

Note.—The above figures are directly comparable in every respect.

The figures given in the above table shew that from 1901 to 1914 house rents increased in all the capital cities, though varying in degree, from 14 per cent. in Perth to 81 per cent. in Brisbane, where, however, rents were very low in 1901. The weighted average indexnumber, which is, of course, largely dominated by the experience of the more populous cities of Sydney (with an increase of 49 per cent.) and Melbourne (54 per cent.) increased from 751 in 1901 to 1,135 in 1914, or by 51 per cent. This increase in the weighted average represents the accumulated results of increments of varying amount, in each of the years 1901-1914, without exception. These annual increments to rents were experienced in all the capital cities except Adelaide and Perth. Since 1916 rents have advanced in all the capital cities. The rent index-numbers for Perth for the years 1904-10 consistently followed a direction opposite to that taken by the same indices relating to the other cities, inasmuch as, instead of moving upward, they declined during each year, the aggregate result being a fall from 802 in 1903 to 667 in 1909, and, although they rose in 1910 to 696, they were even then below the level of 1903. This period of falling rents in Perth-in such striking contrast to the experience of all the other capital cities-was contemporaneous with a diminution almost to vanishing point of net immigration, which for many years had been considerable. A further factor in the arrest of the growth of population consisted in the reduction of public expenditure following upon the completion of large public works, while, at the same time, there was a falling-off in speculative ventures in gold-mining. Moreover, during this period there was a marked movement by residents of Perth to land settlement in the southern districts of the State.

A further striking feature in the movements of rents, as shewn by the weighted average index-numbers given in the foregoing table, is the decline registered in the years 1915-1917. This fall was probably, in some measure, due to the circumstance that wives and other dependents of soldiers, for social reasons, gave up their separate establishments and shared houses or apartments, thus reducing the demand for house accommodation. The Government regulations forbidding the increase of rents of houses tenanted by soldiers' dependents would, also, have a restraining influence on any tendency for rents to rise. The high prices for food and groceries during these years also furnished an inducement, for economic reasons, to persons, other than soldiers' dependents, to share a house. The compensating movements of the prices of food and groceries, and of house rents, will be referred to later.

(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 so far 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.—PRICE INDEX-NUMBERS* SHEWING WEIGHTED AVERAGE RESULTS FOR ALL GROUPS (GROCERIES, DAIRY PRODUCE, MEAT, AND HOUSE RENT), 1901 TO 1919.

Town.	1901.	1906.	1910.	1911.	1912.	1913.	1914.	1915.	1916.	1917.	1918.	1919.
Sydney Melbourne Brisbane Adelaide Perth Hobart Weighted	 893 870 769 864 1,027 869	934 878 780 891 1,024 899	995 942 877 1,008 1,023 951	1,031 950 915 1,058 1,126 954	1,148 1,055 979 1,157 1,154 1,042	1,178 1,051 969 1,121 1,128 1,050	1,206 1,105 997 1,143 1,143 1,090	1,323 1,277 1,162 1,259 1,222 1,233	1,394 1,309 1,188 1,285 1,266 1,278	1,406 1,294 1,181 1,245 1,246 1,301	1,427 1,349 1,252 1,335 1,239 1,356	1,580 1,481 1,442 1,468 1,420 1,496
Average†	 880	902	970	1,000	1,101	1,104	1,140	1,278	1,324	1,318	1,362	1,510

 $^{^{\}bullet}\,$ As the price index-number increases, the purchasing-power of money diminishes. $\dagger\,$ For all capital towns.

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

From this table, which presents the index-numbers for the combined results from food and groceries and rents, it will be seen that, on the basis of the weighted average for the six capital cities, the decline (alluded to in (i) of this sub-section) in the prices of food and groceries during 1913 was more than counterbalanced by the rise in house rents. This, however, was not the case with regard to Melbourne, Brisbane, or Perth, for each of which the combined index shews a decline. Adelaide, alone, shewed a decrease in house rents in 1913, consequently the decline in the combined index-number for that city was the most marked. In 1917 the fall in the prices of food and groceries was sufficient to outweigh the increase in house rents and so effect a slight decrease in the combined index-number. As in 1913, the net effect in Sydney and in Hobart did not conform to the experience indicated by the weighted average. In 1918 the upward movement was experienced in all the cities except Perth, while in 1919 it was general throughout.

The abnormal movements of the prices of food and groceries, and of house rents, during the war years present features of particular interest. It will be seen that, on the basis of the weighted averages, prices of food and groceries rose in 1915 by about 24 per cent. over 1914, and continued on a somewhat higher level, whereas the weighted average for house rents fell in 1915 by 4.8 per cent., and remained below the 1913 level until 1918. The combination of house rents with prices of food and groceries has had the effect of very materially modifying the index of prices, or, in other words, the purchasing-power of money, as compared with the similar index based on food and groceries only. In 1918 and 1919 there were increases in both prices of food and groceries and house rents, the combined results for 1919 being an increase of 10.9 over 1918, 32.5 per cent. over 1914, and 51.0 per cent. over 1911. The decrease in the purchasing-power of money between 1919 and 1914 has varied between the capital cities from 24 per cent. in Perth to 45 per cent. in Brisbane, while between 1919 and 1911 it has varied between 26 per cent. in Perth and 58 per cent. in Brisbane.

5. Variation in Purchasing-Power of Money, 1901 to 1919.—The tables in paragraph 4 give the relative cost in the six capital towns of food, groceries, and house rent from 1901 to 1919 in the form of index-numbers. The figures have been converted into a monetary basis in the next table, and shew the sums which would have to be paid in each town and in each year in order to purchase such relative quantities (indicated 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.

CHANGES IN PURCHASING-POWER OF MONEY (FOOD, GROCERIES, AND HOUSE RENT), 1901-19.

	Year.		Sydney.	Melbourne.	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 10	17 5	15 5	17 3	20 6	17 5	17 7	
1906			18 8	17 7	15 7	17 10	20 5	18 0	18 0	
1911			20 7	19 0	18 4	21 2	22 6	19 1	20 0*	
1913			23 7	21 0	19 5	22 5	22 6	21 1	22 1	
1914			24 1	22 1	19 11	22 10	22 10	21 10	22 10	
1915			26 6	25 6	23 3	25 2	24 5	24 8	25 7	
1916			27 10	26 2	23 9	25 8	25 4	25 7	26 6	
1917			28 1	25 11	23 7	24 11	24 11	26 0	26 4	
1918		••	28 6	27 0	25 1	26 8	24 9	27 1	27 3	
1919	• •	••	31 7	29 7	28 10	29 4	28 5	29 11	30 2	

[·] 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.

CHANGES IN PURCHASING-POWER OF MONEY.—GROCERIES AND FOOD, 1901-19.

	Year.		Year.		Year.		Sydney.	Melbourne.	Brisbane.	Adelaide.	Perth.	Hobart.	Weighted Average of 6 Capital Towns.
•			s. d.	s. d.	s. d								
1901			18 4	19 4	19 4	20 7	23 8	20 3	19 4				
1906			19 3	18 11	19 2	198	24 9	20 11	19 7				
1911			19 9	18 8	20 4	20 5	26 11	21 2	20 0*				
1913			22 8	20 6	20 10	22 5	25 4	23 3	21 11				
1914			23 1	21 10	21 7	24: 4	26 0	24 3	22 11				
1915			27 11	28 3	27 6	29 9	29 8	28 11	28 4				
1916			30 5	29 3	28 6	30 8	30 10	30 5	29 11				
1917			30 10	28 3	28 2	28 11	30 1	30 11	29 5				
1918			31 0	29 4	29 11	31 1	29 9	32 8	30 3				
1919	• •		35 8	32 5	35 3	34 5	35 5	35 0	34 4				

Basis of Table.

(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):—

CHANGES IN PURCHASING-POWER OF MONEY.—HOUSE RENT, 1901-19.

	Year.		Year.		Sydney. Melbour		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 3	14 8	9 9	12 7	16 0	13 4	15 1			
1906			17 11	15 8	10 6	15 3	14 4	13 9	15 11			
1911			21 10	19 5	15 4	22 3	16 3	16 1	20 0*			
1913			24 11	21 10	17 3	22 6	18 7	17 10	22 4			
1914			25 7	22 6	17 8	20 10	18 3	18 3	22 8			
1915			24 5	21 8	17 2	18 8	17 0	18 7	21 7			
1916			24 3	21 9	17 0	18 7	17 4	18 7	21 7			
1917			24 3	22 6	17 5	19 2	17 5	19 0	22 0			
1918			25 0	23 7	18 1	20 5	17 8	19 1	22 10			
1919			25 9	25 8	19 8	22 2	18 4	22 8	24 4			

[·] Basis of Table.

6. Relative Cost of Food, Groceries, and House Rent in Different Towns, 1919.—The index-numbers given in the preceding paragraphs show changes in the cost of food, groceries, and house rent separately for each capital town during the years 1901 to 1919. The figures given in the table below show the relative cost of food and groceries, and of house rent in 1919 in the thirty towns for which particulars are now collected. The weighted aggregate expenditure for the six capital towns for the year 1911 has been taken as base and made equal to 1,000, hence the columns are comparable both horizontally and vertically.

INDEX-NUMBERS, SHEWING RELATIVE COST IN THIRTY TOWNS, OF FOOD AND GROCERIES AND HOUSE RENT COMPARED WITH WEIGHTED AVERAGE EXPENDITURE THEREON IN THE SIX CAPITAL TOWNS IN 1911 AS BASE (=1,000), YEAR 1919.

			Hous	e Rent.			ERIES, F		
Town.	Groceries and Food.	Four- roomed Houses only.	Five- roomed Houses only.	Six- roomed Houses only.	All Houses Weight'd Average.	Four Rooms.	Five Rooms.	Six Rooms.	All Houses Weight'd Average
NEW SOUTH WALES-									
Sydney	1,050	414	499	590	530	1,464	1,549	1,640	1,580
Newcastle	1,062	334	440	537	431	1,396	1,502	1,599	1,493
Broken Hill*	1,119	281 300	353 399	438 552	300 475	1,400	1,472 1,448	1,557 1,601	1,419
Goulburn Bathurst	1,049 990	235	299	398	350	1,349 1,225	1,289	1,388	1,524 1,340
Weighted Average	1,053	398	484	577	509	1,451	1,537	1,630	1,562
VICTORIA-									
Melbourne	954	381	485	594	527	1,335	1,439	1,548	1,481
Ballarat	935	147	221	295	263	1,082	1,156	1,230	1,198
Bendigo	918	195	276 380	362 464	297	1,113	1,194 1,315	1,280 1,399	1,215
Geelong Warrnambool	935 945	264 268	349	423	412 366	$1,199 \\ 1,213$	1,294	1,368	1,347 1,311
Weighted Average	950	346	446	550	486	1,296	1,396	1,500	1,436
QUEENSLAND-			l	İ					
Brisbane	1,038	263	337	445	404	1,301	1,375	1,483	1,442
Toowoomba	1,060	205	.264	332	342	1,265	1,324	1,392	1,402
Rockhampton	1,076	211	265	357	332	1,287	1,341	1,433	1,408
Charters Towers Warwick	1,166 1,064	225 211	301 287	351 355	288 334	$\frac{1,391}{1,275}$	1,467 1,351	1,517 1,419	1,454 1,398
Warwick Weighted Average	1,055	247	318	414	379	1,302	1,373	1,469	1,434
	1,055	241	310	414	379	1,502	1,575	1,409	1,404
SOUTH AUSTRALIA— Adelaide	1,013	338	448	574	455	1,351	1,461	1,587	1,468
36	1,005	237	314	414	325	1,242	1,319	1,419	1,330
Port Pirie*	1,028	354	421	454	396	1,382	1,449	1,482	1,424
Mt. Gambier	931	207	265	355	291	1,138	1,196	1,286	1,222
Peterborough	1,020	264	357	410	349	1,284	1,377	1,430	1,369
Weighted Average	1,011	328	432	551	438	1,339	1,443	1,561	1,449
WESTERN AUSTRALIA-	1								
Perth, etc.	1,044	320	396	479	376	1,364	1,440	1,523	1,420
Kalgoorlie, etc	1,201	361	434	514	344	1,562	1,635	1,715	1,545
Mid. Junction, etc	1,023 1,090	231 223	307 291	365 310	290 219	1,254 1,313	1,330 1,381	1,388 1,400	1,313 1,309
Geraldton	1,037	359	455	554	388	1,396	1,492	1,591	1,425
Weighted Average	1,076	323	398	478	362	1,399	1,474	1,554	1,438
TASMANIA-									
Hobart	1,030	339	440	518	466	1,369	1,470	1,548	1,496
Launceston	1,006	282	392	459	403	1.288	1,398	1,465	1,409
Zeehan	1,093	134	173	215	129	1,227	1,266	1,308	1,222
Beaconsfield Queenstown	1,021	67	90	103	84 248	1,087 1,375	1,110	1,123 1,470	1,105 1,357
•	1,109	266	329	361		· .	1,438		
Weighted Average	1,030	296	391	459	401	1,326	1,421	1,489	1,431
Commonwealth Weighted Average,									
30 Towns	1,014	350	440	538	467	1,364	1.454	1,552	1,481
• See remark						_ - -			

See remarks on page 48 of Labour Report No. 10, with reference to house rents.

A table shewing the retail price index numbers (food and groceries) for each of the thirty towns for various months in the year since July, 1914, appeared in previous issues, but consideration of space precluded its repetition in the present issue. This table is, however, given in Labour Report No. 10, issued by this Bureau.

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

- 1. Introduction.—In the earlier investigations with regard to the variations in the purchasing-power of money, inquiries were restricted to the 30 towns mentioned in the preceding table. To provide a wider field of observation, investigations were extended in November, 1913, to 100 towns, and in November, 1915, to 150 towns. The indexnumbers for these 150 towns are computed from the retail prices ruling in November of each year.
- 2. Map shewing the relative Purchasing-Power of Money in various Localities.—The index-numbers for each of the 150 towns referred to in the preceding paragraph are tabulated on the inset on page 1073, and are accompanied by a map of Australia. The position of any town may be located on the map by the reference numbers printed on the left-hand margin of the table. The weighted average cost for the 100 towns in 1913 has been taken as the base, and the index-numbers are comparable throughout. Separate index-numbers are given for food, groceries, and rent of five-roomed houses (Column headed "A"), and for food and groceries only (Column headed "B").

§ 9. Wholesale Prices.

1. General.—The results of an investigation into wholesale prices in Melbourne from 1871 to the end of September, 1912, were given in some detail in Report No. 1 of the Labour and Industrial Branch. Summarized results for later years are included in later Reports of the same Branch.

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 measurement for which the prices are taken, and the mass-units, indicating the relative extent to which each commodity is used or consumed, are shewn in a tabular statement in Report No. 10 (page 67).

- 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. They shew, for each of the years specified, the expenditure necessary, if distributed in purchasing the relative quantities (indicated by the mass-units) of the several commodities concerned, to purchase what would have cost £1,000 in 1911. Thus, in the last column it may be seen that the cost of the relative quantities of the various commodities was 1,229 in 1871, and 974 in 1901, as compared with 1,000 in 1911, 1,170 in 1912, 1,088 in 1913, 1,149 in 1914, 1,604 in 1915, and 1,934 in 1918. In other words, prices were lower in 1911 than in either 1871, 1914, 1915, or 1918, 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.

In the computation of the index-numbers for years prior to 1911, the aggregate expenditure on
 80 commodities in 1911 is taken as base (= 1,000), while for later years the aggregate expenditure on
 92 commodities is taken.

MELBOURNE	WHOLESALE	PRICES,	INDEX-NUMBERS,	1861 TO 1919,
	COMPUTED	TO YEA	R 1911 AS BASE.	

		I.	II.	III.	IV.	v.	vi.	VII.	VIII.	All
Year	r.	Metals and Coal.	Jute, Leather, etc.	Agri- cultural Produce, etc.	Dairy Produce.	Gro- ceries.	Meat.	Building Mate- rials.	Chemi- cals.	com- modities together
861		1,438	1,881	1,583	1,008	1,963		1,070	2,030	1,538
871		1,096	1,257	1,236	864	1,586		1,044	1,409	1,229
1881		1,178	1,115	1,012	935	1,421		1,091	1,587	1,121
1891		895	847	1,024	995	1,032	888	780	1,194	945
1901 1902		1,061	774 756	928	1,029	1,048 945	1,345	841 837	917 881	974 1,051
1902	••	1,007 923	834	1,193 1,209	1,215 1,059	936	1,447 1,443	875	921	1.049
1904	• •	821	885	754	876	916	1,427	845	875	896
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	1,088	911	815	993
1910	٠.	1,004	1,052	969	1,100	999	1,008	996	898	1,003
1911		1.000	1,000	1,000	1,000	1.000	1,000	1,000	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	1,423	1,208	1,485	1,322	2,515	1,491	1,760	1,504
1917		2,129	2,008	1,157	1,423	1,343	2,403	1,884	2,171	1,662
1918		2,416	2,360	1,444	1,454	1,422	2,385	2,686	3,225	1,934
1919		2,125	2,363	1,985	1,651	1,516	2,343	2,851	2,898	2,055

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 1074. 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 the Reports of the Labour and Industrial Branch of this Bureau.
- 4. Fluctuations in Wholesale Prices, July, 1914, to July, 1920.—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 July, 1920, taking July, 1914, the last month before the outbreak of war, as base (=1,000) for each group:—

MELBOURNE WHOLESALE PRICES.—VARIATIONS BETWEEN JULY, 1914, AND JULY, 1920.

	I.	п.	III.	ıv.	v.	VI.	VII.	VIII.	
Particulars.	Metals and Coal.	Jute, Leather, etc.	Agri- cultural Produce, etc.	Dairy Produce,	Gro- ceries.	Meat.	Building Mate- rials.	Chemi- cals.	All Groups.
July, 1914 July, 1920	1,000 2,109	1,000 2,518	1,000 2,438	1,000 1,884	1,000 1,928	1,000 2,609	1,000 3,069	1,000 2,834	1,000 2,671

It will be seen that, on the basis of the weighted average for all the groups of commodities included in the computation, prices have risen during the period specified by no less than 167 per cent. The greatest increase, 206.9 per cent., is recorded in Group VII. (Building Materials), and the least, 88.4 per cent., in Group IV. (Dairy Produce).

§ 10. Control of Trade and Prices during the 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 were given in Labour Bulletin No. 6, September, 1914, pages 132–147. The same publication shews that there was great diversity in regard to the operations of the various authorities created in the different States.

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 and cognate matters. This Commission ceased to exercise its functions after the 30th October, 1914.

2. Federal Control of Prices.—In March, 1916, the Federal Government created a Prices Adjustment Board with authority to fix the prices of flour, bread, bran, and The Board fixed the prices of flour, bran, and pollard in every Prices of bread were fixed in upwards of 1,000 milling centre in Australia. 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 was 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 the control of prices was placed in the hands of a Minister acting upon the recommendations of State Commissioners. The Commissioner for Victoria acted also as Chief Prices Commissioner. Prices were fixed, by regulations under the War Precautions Act, for a large number of commodities. In May, 1919, the Commonwealth Government released from the control of the Prices Commissioners many articles, trade in which had been regulated during the

In July, 1919, control ceased of all but a few commodities; the more important of which were butter, cheese, and flour. In August, 1920, the Commonwealth organization for the fixing of prices was abolished. Prices, however, of necessary commodities were not permitted to remain uncontrolled except in Tasmania. In New South Wales, Queensland, and South Australia price fixing was resumed under the authority of Acts already in existence, while in Victoria and Western Australia necessary legislation was passed to enable the Governments of these States to deal with the subject.

The following statement shews the Acts which have been passed, and the Bills introduced by the Governments of the various States for the purpose of controlling prices:—

- New South Wales.—In New South Wales, control of prices was resumed in July, 1919, under authority of the "Necessary Commodities Control Act, 1914." In January, 1920, this Act was superseded by the "Necessary Commodities Control Act, 1919."
- Victoria.—In Victoria, an Act entitled the "Necessary Commodities Control Act, 1919," was passed. Under authority of this Act a "Fair Profits Commission," consisting of three members, was appointed for the purpose of regulating prices of necessary commodities in Victoria.
- Queensland.—Queensland resumed control of prices in December, 1919, under authority of "The Control of Trade Act, 1914." In March, 1920, this Act was superseded by "The Profiteering Prevention Act, 1920," under which a "Commissioner of Prices" was appointed to control prices in Queensland.
- South Australia.—State control was resumed in August, 1919, under authority of the "Prices Regulation Act, 1914." In November, 1919, this Act was superseded by the "Prices Regulation Act, 1919," under which a "Prices Regulation Commission," consisting of three members, was appointed to control prices in South Australia.
- Western Australia.—In Western Australia, State control of prices was not resumed until December, 1919, when an Act, entitled "The Prices Regulation Act, 1919," was passed. Under this Act three Commissioners were appointed for the control of prices in Western Australia.
- Tasmania.—In Tasmania, a "Necessary Commodities Control Bill, 1919," was introduced, but was not passed.
- 3. Control of House Rents.—No attempt was made by the Commonwealth Government to control rents generally, but War Precautions Regulations afforded special protection to persons connected with the Defence Forces against increases in rent. During the war the Inter-State Commission conducted an investigation into Housing Accommodation and Rents. Fair Rents Courts are in operation in New South Wales, under the "Fair Rents Act, 1915," and in Queensland under "The Fair Rents Act, 1920." So far the remaining States have not attempted to control rents.