

## SECTION XXXIII.

## LABOUR AND INDUSTRIAL STATISTICS.

## § 1. Introductory.

1. **General.**—The field of Australian statistics has recently been extended by the organisation of a Labour and Industrial Branch of the Commonwealth Bureau of Census and Statistics. The functions of this branch are to carry out investigations in regard to what are commonly known as labour and industrial statistics, and the scheme of work provides for systematic investigations into the following matters:—

(a) *Trade Unionism.*—Classification of unions and members by industries; development of unions and members; the law relating to trade unions; economic characteristics of trade unionism; trades and labour councils and federation of unions.

(b) *Wages and Hours of Labour.*—The course of wages; index-numbers shewing relation between wages, prices, etc.; current wages and hours of labour—metropolitan and country—in each State.

(c) *Changes in Rates of Wages and Hours of Labour.*—The amount of the change; the number of workers affected; individual and aggregate effects of changes on amount of wages paid; method by which changes brought about.

(d) *Strikes and Lock-outs.*—Classified according to industries affected; their cause, duration, method of settlement, number affected, and direct and indirect losses; operations under Federal and State Arbitration and Conciliation and Wages Board Acts.

(e) *Unemployment.*—Classified according to industries; seasonal and general fluctuations; index-numbers of employment; average duration of employment; operations of Government Labour Bureaux; effect of non-continuity of employment on earnings; co-operation in international investigations.

(f) *Prices, Fluctuations in Exchange Value of Gold and Cost of Living.*—Import and export values, wholesale and retail prices, and house rents; special investigations for past years; index-numbers; cost of living inquiries by household budgets; international comparisons.

(g) *Investigations in regard to Principal Industries in Commonwealth.*—Numbers employed and wages paid; classification of wage-earners according to occupations and wage-groups; comparisons between rates of wages and actual earnings.

(h) *Miscellaneous.*—Reports on state of labour market in various industries and localities; immigration; operations of Labour Bureaux; legal cases affecting labour; industrial accidents; co-operation and co-partnership; review of laws affecting labour in Australia and elsewhere; review and analysis of reports issued by Australian, British, American, and Continental European Labour Departments.

(i.) *Special Subjects of Investigation.*—Concurrently with the general inquiries to be conducted by the Branch (as specified above), it is proposed that investigations shall be carried out into special matters. Each of these would extend, if necessary, over a

period as long as one or two years, and would deal with such matters as :—Apprenticeship ; the working of various laws specially affecting labour ; the employment of women and children ; industrial education ; noxious and dangerous trades ; workmen's compensation and social insurance ; fluctuations in employment and their effect on the conditions and efficiency of labour ; the housing of the working people ; the cost of production ; the regulation and restriction of output.

In this section it is only proposed to present in summarised form the results of the various investigations which have been made. For more complete information reference may be made to the publications of the Labour and Industrial Branch of this Bureau.\*

**2. Classification of Industries.** For the purpose of tabulating and publishing the results of the investigations which have been made in regard to labour organisations, unemployment, rates of wages, etc., the following industrial classification of trades and occupations has been adopted :—

#### CLASSIFICATION OF INDUSTRIES AND OCCUPATIONS.

I.	Wood, Furniture, Sawmill, Timber-workers, etc.	VIII.	Mining, Quarries, etc.
II.	Engineering, Shipbuilding, Smelting, Metal Works, etc.	IX.	Railway and Tramway Services.
III.	Food, Drink, and Tobacco Manufacturing and Distribution.	X.	Other Land Transport.
IV.	Clothing, Hats, Boots, Textiles, Rope, Cordage, etc.	XI.	Shipping, Wharf Labour, etc.
V.	Books, Printing, Bookbinding, etc.	XII.	Pastoral, Agricultural, Rural, Horticultural, etc.
VI.	Other Manufacturing.	XIII.	Domestic, Hotels, etc.
VII.	Building.	XIV.	Miscellaneous.

### § 2. Labour Organisations.

**1. Types of Trade Unions in Australia.** The types of trade unions in Australia are very diverse in character, and range from the small independent association to the large interstate organisation, which, in its turn, may be merely a branch of a British or international union. Broadly speaking, there are four distinct classes of labour organisations, viz. :—(i.) the *local independent*, (ii.) the *State*, (iii.) the *inter-State*, and (iv.) the *Australasian or International*, but a number of variations occur from each of these classes. The leading characteristics of each of these types were briefly outlined in Report No. 2 (pp. 7 to 9).

Particulars of number of unions and branches in each State, of inter-State and central labour organisations have already been given in Section XXVII. hereof (see pages 1015 to 1018).

**2. Number of Unions and Membership in Industrial Groups, 1912.**—The scheme of industrial classification adopted for the grouping of unions has already been referred to (see above). The following table gives the number of unions and members thereof in each State. The number of unions specified for each State refers to the number of different unions represented in each State ; that is to say, inter-State or federated unions are counted once in each State in which they are represented, but sub-branches within a State are not counted. In order to avoid disclosing the affairs of individual unions, in cases where there are only either one or two unions in any group in a State, the membership is not given separately,

\* See Report No. 1, "Prices, Price-Indexes and Cost of Living in Australia, 1891 to 1912." Report No. 2, "Trade Unionism, Unemployment, Wages, Prices, and Cost of Living in Australia 1891 to 1912," and "Labour Bulletin No. 1, January to March, 1913." In Appendix No. VIII to Report No. 1, the theory and technique of the formation of price-index numbers is discussed at some length, while in Appendix No. IX the question of the establishment of a basis for international comparisons of the exchange value of gold and variations in cost of living is investigated.

## NUMBER OF UNIONS AND MEMBERS IN INDUSTRIAL GROUPS IN EACH STATE, 1912.

Industrial Groups.†	N.S.W.	Vic.	Q'land.	S.A.	W.A.	Tas.	Total.
NUMBER OF UNIONS.							
I. Wood, Furniture, etc. ...	4	4	6	4	4	2	24
II. Engineering, Metal Works, etc. ...	16	20	9	12	10	4	71
III. Food, Drink, Tobacco, etc. ...	20	18	7	8	12	5	70
IV. Clothing, Hats, Boots, etc. ...	9	11	3	5	3	2	33
V. Books, Printing, etc. ...	7	10	3	2	6	2	30
VI. Other Manufacturing ...	26	21	6	12	10	5	80
VII. Building ...	14	14	8	7	10	7	60
VIII. Mining, Quarries, etc. ...	16	3	1	2	4	2	28
IX. Railway and Tramway Services ...	7	3	4	3	5	3	25
X. Other Land Transport ...	6	5	3	2	2	1	19
XI. Shipping, etc. ...	12	5	5	7	4	8	41
XII. Pastoral, Agricultural, etc. ...	3	6	1	1	2	1	14
XIII. Domestic, Hotels, etc. ...	8	6	2	3	6	2	27
XIV. Miscellaneous ...	29	25	9	10	19	7	99
Total ...	177	151	67	78	97	51	621
NUMBER OF MEMBERS.							
I. Wood, Furniture, etc. ...	6,238	4,462	1,635	1,421	3,773	*	17,529†
II. Engineering, Metal Works, etc. ...	12,912	9,169	1,944	3,862	1,841	225	29,953
III. Food, Drink, Tobacco, etc. ...	11,273	8,771	4,286	2,214	1,268	320	28,132
IV. Clothing, Hats, Boots, etc. ...	5,936	7,738	1,245	1,005	468	*	16,382‡
V. Books, Printing, etc. ...	3,355	3,166	464	*	406	*	7,420‡
VI. Other Manufacturing ...	12,619	7,756	578	1,699	2,026	160	24,838
VII. Building ...	10,719	8,185	2,174	2,236	1,893	402	25,609
VIII. Mining, Quarries, etc. ...	21,731	5,791	*	*	6,670	*	34,192‡
IX. Railway and Tramway Services ...	31,626	12,738	2,931	2,865	4,725	1,130	56,005
X. Other Land Transport ...	4,708	5,220	1,878	*	*	*	12,806‡
XI. Shipping, etc. ...	17,540	6,026	5,039	4,136	1,530	729	35,000
XII. Pastoral, Agricultural ...	21,624	15,621	*	*	*	*	50,726†
XIII. Domestic, Hotels, etc. ...	6,008	4,869	374	1,733	1,249	*	14,233†
XIV. Miscellaneous ...	26,337	17,065	13,262	7,338	5,559	430	69,991
Total ...	192,626	116,557	44,768	37,336	33,282	8,655	433,324

† See opposite page. \* Not available for publication separately; included in State and Commonwealth Totals. ‡ Incomplete, see footnote.\*

It may be seen that, with the exception of Group XIV., Miscellaneous, the membership is greatest in Group IX., Railway and Tramway Services (56,005 members), followed fairly closely by Group XII., Agricultural, Pastoral, etc., with over 50,000 members. The least important group from the point of view of membership is Group IV., Books, Printing, etc., with 7580 members. Particulars are also given in Report No. 2 (pp. 11-12) of the number of male and female members of unions and the percentage of such members on the total number of adult wage earners. Information is also given as to the development of trade unionism since 1891. Other tables shew the classification of unions according to number of members and the number of central labour organisations.

### § 3. 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 are now being collected each quarter (since the beginning of the year 1913) from trade unions.

**2. Number Unemployed in Various Industries, 1891 to 1912.**—The subjoined 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, it relates only to the number unemployed at the end of the year (see preceding paragraph hereof), and, secondly, it does not cover more than a part of the industrial field. And attention should here be drawn to the fact that the value of the comparisons which can be made is, to some extent, vitiated by the fact that returns are not available for the same unions throughout. As regards the year 1912, the table on page 112 shews that for most of the important industries, returns are available for a considerable number of unions and members. It is not unlikely, however, that particulars of unemployment are, on the whole, more generally available for those trades in which liability to unemployment is above the average of skilled occupations. Thus the building and engineering industries are heavily represented in the returns, while such comparatively stable industries as railway service are hardly represented at all. On the other hand, unskilled casual labour cannot, in the nature of the case, be well represented in the returns, which relate mainly to skilled workmen.

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

**UNEMPLOYMENT IN TRADES UNIONS, NUMBER AND MEMBERSHIP OF UNIONS FOR WHICH RETURNS ARE AVAILABLE, AND NUMBER AND PERCENTAGE UNEMPLOYED, 1891 to 1912.**

Particulars.	1891.	1896.	1901.	1906.	1907.	1908.	1909.	1910.	1911.	1912.
No. of Unions for which returns available ...	25	25	39	47	51	68	84	109	160	464
Membership ...	6,445	4,227	8,710	11,299	13,179	18,685	21,122	32,995	67,961	224,023
No. unemployed at end of year ...	599	457	574	753	757	1,117	1,223	1,857	3,171	12,441
Percentage of unemployed at end of year*...	9.29	10.81	6.59	6.67	5.74	5.98	5.79	5.63	4.67	5.55

\* See graph in § 8 hereof.

It may be seen that the extent of unemployment was greatest in 1896 and least in 1911. The significance of the figures may be better appreciated by reference to the graph in paragraph 2 in § 8 of this Section. The general trend of the graph shews a decline in unemployment since 1896. In 1912, however, there was an increase of about 0.8 per cent.

The high percentage for 1891 was largely due, no doubt, to the dislocation of industry following the maritime strike, while the still higher percentage for 1896 may be traced to the prevalent industrial depression, especially in Victoria, caused by the bank failures and the severe droughts. It may be noticed that, though the number of unions reporting

\* Some description of the various methods of testing the state of the labour market may be found in the Board of Trade Memorandum on Industrial Conditions (Second Series). Cd. 2337 1904, pp. 79 to 125.

See also "Rapport Préliminaire sur la Statistique Internationale du Chômage," M. Louis Varlez, Gand, 1912.

in 1896 is the same as in 1891, the number of members shows a large reduction. This indicates that, in time of severe industrial depression, when employment is bad, the members tend to drift away from the unions. Many probably leave their ordinary places of residence in search of work elsewhere.

The accuracy of the above results as an index to the general state of employment among *all* wage-earners in Australia is confirmed by the results obtained from the censuses of 1891, 1901 and 1911, the closeness of the percentages obtained from these two independent sources for the two latter years being remarkable. A comparative table is given in Report No. 2 (p. 18).

**3. Unemployment in Different Industries, 1912.**—The following table shews the relative percentages unemployed in several of the fourteen industrial groups. Attention has already been drawn to the fact that some of the industries, such as Railways, Shipping, and Agriculture, are insufficiently represented. 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. Particulars are not, therefore, shewn separately for Groups IX. (Railway, etc., Services), XI. (Shipping, etc.) and XII. (Agricultural, Pastoral, etc.), such returns as are available for these groups being included in the last group, "Other and Miscellaneous."

#### UNEMPLOYED IN DIFFERENT INDUSTRIES AT END OF YEAR 1912.

Industrial Group.	No. of Unions in Existence.	No. of Unions Reporting.	Membership of Unions.	No. of Unemployed in Unions Reporting.	Percentage Unemployed.
I. Wood, Furniture, &c. ...	24	22	15,289	570	3.73
II. Engineering, Metal Works, etc. ...	71	62	26,217	1,927	7.35
III. Food, Drink, Tobacco, etc. ...	70	57	15,995	1,174	7.34
IV. Clothing, Hats, Boots, etc. ...	33	29	15,833	995	6.29
V. Books, Printing, etc. ...	30	29	8,161	231	2.83
VI. Other Manufacturing... ..	80	70	23,053	1,600	6.94
VII. Building ... ..	60	54	22,782	1,251	5.49
VIII. Mining, Quarrying, etc. ...	28	21	26,925	1,513	5.62
X. Other Land Transport ... ..	19	13	12,326	135	1.10
XIII. Domestic, Hotels, etc. ...	27	21	13,604	899	6.61
IX., XI., XII, and XIV., Other and Miscellaneous ... ..	179	86	43,838	2,146	4.80
Total ... ..	621	464	224,023	12,441	5.55

From the above figures it may be seen that the degree of unemployment varies considerably in different industries, ranging from 1.1 per cent. in Group X. (Other Land Transport, comprising chiefly carters and drivers) to 7.35 per cent. in Group II. (Engineering, Shipbuilding, Smelting Metal Works, etc.).

**4. Unemployment in each State, 1912.**—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 1126), 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 EACH STATE AT END OF YEAR 1912.

Particulars.	N.S.W.	Vic.	Q'd.	S.A.	W.A.	Tas.	C'wealth.
No. of Unions in existence ...	177	151	167	78	97	51	621
No. of Unions reporting ...	142	107	50	54	77	34	464
Membership of Unions reporting ...	98,307	71,805	13,302	19,510	17,769	3,380	224,023
No. of members unemployed	4,869	4,822	614	989	1,033	114	12,441
Percentage unemployed ...	4.95	6.71	4.62	5.07	5.82	3.37	5.55

The above figures shew that, at the time indicated, the degree of unemployment was the greatest in Victoria, followed, in the order named, by Western Australia, South Australia, New South Wales, and Queensland, with Tasmania last.

## 4. Changes in Rates of Wages.

1. **Variations in Wage Index-Numbers in Various Industries, 1891 to 1912.**—The total number of different occupations for which particulars as to wages are available back to 1891 is 652. These wages relate generally to union rates, but in a few cases, more especially for the earlier years, when there were no union rates fixed, predominant or most frequent rates have been taken. The 652 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 industrial centres have been taken.

The following table shews wage index-numbers for the whole Commonwealth in each of the fourteen industrial groups during the years specified, wages in the year 1911 being taken as the base (= 1000). Rates of wages for females are not included. The index-numbers are "weighted" according to the number of persons engaged in different industrial groups in each State and the Commonwealth (see Report No. 2, pages 23 and 24).

## VARIATIONS IN WAGE INDEX-NUMBERS IN DIFFERENT INDUSTRIES IN THE COMMONWEALTH, 1891 to 1912. (WAGES IN 1911 = 1000.)

Particulars	No. of Occupations included.	1891.	1896.	1901.	1906.	1907.	1908.	1909.	1910.	1911.	1912.
I. Wood, Furniture, etc. ...	27	909	835	906	910	932	934	938	975	1,000	1,017
II. Engineering, Metal Work, etc. ...	101	875	873	888	900	913	930	935	946	1,000	1,039
III. Food, Drink, etc. ...	34	751	747	878	895	910	913	922	936	1,000	1,047
IV. Clothing, Hats, Boots, etc. ...	13	730	725	722	857	872	884	953	995	1,000	1,009
V. Books, Printing, etc. ...	25	907	850	866	872	879	888	931	959	1,000	1,034
VI. Other Manufacturing ...	102	892	861	895	894	893	903	911	935	1,000	1,023
VII. Building ...	67	813	764	866	883	911	919	932	959	1,000	1,027
VIII. Mining, Quarries, etc. ...	71	949	880	893	915	935	934	938	978	1,000	1,018
IX. Railway Services, etc. ...	68	892	894	918	920	923	927	956	965	1,000	1,046
X. Other Land Transport ...	9	848	772	874	874	893	919	919	977	1,000	1,091
XI. Shipping, etc. ...	74	856	773	862	894	904	904	963	984	1,000	1,082
XII. Agriculture, etc. ...	8	810	779	747	800	870	877	938	951	1,000	1,125
XIII. Domestic, Hotels, etc. ...	17	723	671	674	683	686	706	819	838	1,000	1,008
XIV. Miscellaneous ...	36	832	812	817	830	875	883	908	957	1,000	1,093
<b>All Groups* ...</b>	<b>652</b>	<b>848</b>	<b>816</b>	<b>848</b>	<b>866</b>	<b>893</b>	<b>900</b>	<b>923</b>	<b>955</b>	<b>1,000</b>	<b>1,051</b>

\* Weighted average; see graph in § 8 hereof.

NOTE.—The figures in the above table are comparable horizontally, but are not directly comparable vertically. This is evident from the fact that the average wage in each industry group (and for all groups) in 1911 is made equal to 1000.

The above figures (for all groups combined) are shewn in the graph in paragraph 2 in § 8 of this section. It may be seen that the index-numbers increase during the whole period under review except in 1896, when there was a fall. The wage index-number increased from 848 in 1891 to 1000 in 1911, and 1051 in 1912. It will be observed that the increase from 1891 to 1911 was relatively greatest in Classes XIII. (Domestic, Hotels, etc.) IV. (Clothing, Hats, Boots, etc.), and III. (Food, Drink, Tobacco, etc.), and it is probably in the industries and occupations included in these groups that "sweating" was most prevalent. The relative increase is least in Class VIII. (Mining, Quarries, etc.), the index-number for that group having increased only from 949 in 1891 to 1000 in 1911 and 1018 in 1912.

Attention is drawn in Report No. 2 (see pages 25 and 26) that the index-numbers given in the above table are readily *reversible*, that is to say, any year other than the year 1911 can be taken as base, and an example is given, shewing the amount of wages payable in 1901, 1911 and 1912 in each industrial group for every £1 payable in 1891.

2. **Variations in Wage Index-Numbers in Different States, 1891 to 1912.**—The following table shews the progress in rates of wages for all industries in each State, wages in 1911 being taken as the base (= 1000). These results are based generally upon rates of wages prevailing in the capital town of each State, but in certain industries, such as mining, rates are necessarily taken for places other than the capital towns.

**VARIATIONS IN WAGE INDEX-NUMBERS IN DIFFERENT STATES, 1891 to 1912.**  
(WAGES IN 1911 = 1000.)

Particulars.	No. of Occupations included.	1891.	1896.	1901.	1906.	1907.	1908.	1909.	1910.	1911.	1912.
New South Wales ...	158	858	819	855	883	907	910	939	965	1,000	1,055
Victoria ...	150	801	768	806	819	870	884	900	938	1,000	1,054
Queensland ...	87	910	874	903	911	916	927	948	962	1,000	1,013
South Australia ...	134	801	803	809	821	847	857	893	939	1,000	1,035
Western Australia ...	69	887	908	913	914	914	921	927	969	1,000	1,034
Tasmania ...	54	939	854	899	937	906	906	915	966	1,000	1,168
Commonwealth* ...	652	848	816	848	866	893	900	923	955	1,000	1,051.

\* Weighted average; see graph in § 8.

NOTE.—The figures in the above table are comparable horizontally, but are not directly comparable in the vertical columns. This is evident when it is considered that wages in each State in 1911 are taken equal to 1000.

The above table shews that the relative increase from 1891 to 1911 was greatest in Victoria and South Australia, and least in Tasmania, but in the last-named State there was a remarkable increase, amounting to nearly 17 per cent., in 1912. This is, no doubt, accounted for to a large extent by the fact that the wages board system was first adopted in Tasmania in that year.

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

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

1. **General.**—In Report No. 2 particulars were given, so far as available for each State, of the prevailing rates of wages in upwards of 400 different occupations. In this section the list of occupations has been curtailed and particulars are given for the more important industries and occupations only. Particulars of wages in the mining industry have already been given herein, (sec p. 519).

2. **Comparative Table of Time Rates of Wages, 1913.**—The information upon which the particulars were primarily based was furnished by trade unions. These returns have been carefully checked and brought up to date by reference to awards of arbitration courts, determinations of wages boards and industrial agreements. It will be seen that for convenience of comparison *the wages are in nearly all cases presented as a weekly rate*, though in many industries they are actually based on daily or hourly rates, as specified in awards, determinations or agreements. This caution is necessary, in view of the fact that it is often in those industries and occupations in which employment is of an exceptionally casual or intermittent nature that wages are fixed or paid at a daily or hourly rate. Hence the average weekly earnings in such occupations will probably fall considerably short of the weekly rates specified in the table.

The rates specified refer generally to the capital town of each State, but in industries, such as mining and agriculture, rates are necessarily taken for places other than the capital towns. *The figures given relate to journeymen or adult workers, and represent (except where otherwise specified in the footnotes) the amounts payable for a full week's work of 48 hours.* In every case where the hours of labour constituting a full week's work are other than 48, the number of hours is indicated in the footnotes. Occupations of females are printed in italics.

### WEEKLY RATES OF WAGES OF JOURNEYMEN OR ADULT WORKERS IN THE CAPITAL TOWN OF EACH STATE, 1913\*, FOR A FULL WEEK'S WORK.

NOTE.—Occupations of Females are printed in Italics. Except where otherwise specified in the footnotes, the hours of labour constituting a full week's work are forty-eight.

#### I.—WOOD, FURNITURE, SAWMILL AND TIMBER WORKS.

Occupations.	Sydney.	Melb.	Brisbane.	Adelaide.	Perth.	Hobart.
	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
<b>Coopers</b> ... ..	66 0	62 0	66 0	66 0	80 0	60 0
	to 74 0					
<b>Furniture, including Mattress and Picture Frame.</b>						
Bedding Makers ... ..	60 0	57 0	151 4	54 0	60 0	48 0
Cabinet Makers ... ..	64 0	60 0	160 6	56 0	69 0	57 0
Chair Makers ... ..	64 0	60 0	160 6	56 0	69 0	57 0
French Polishers ... ..	64 0	60 0	156 10	56 0	66 0	57 0
Upholsterers ... ..	64 0	60 0	156 10	56 0	66 0	57 0
Wood Machinists ... ..	54 0	51 0	147 8	56 0	60 0	54 0
	to 63 0	to 63 0	to 160 6		to 66 0	to 57 0
<b>Mattress Makers.</b>						
Finishers ... ..	...	55 0	153 2	48 0	...	48 0
Makers ... ..	60 0	58 0	153 2	52 0	66 0	48 0
Varnishers ... ..	...	55 0	147 8	43 0	...	48 0
<b>Timber Yard Workers.</b>						
Labourers... ..	46 0	48 0	48 0	48 0	54 0	43 6
Moulding Machinists ... ..	56 0	56 0	64 0	57 6	60 0	50 0
					to 66 0	
Ordermen ... ..	52 6	54 0	52 0	54 0	57 6	48 0
Planing Machinists ... ..	54 0	57 0	56 0	49 6	66 0	60 0
Pullers or Tailers Out ... ..	46 0	48 0	48 0	45 0	57 0	46 6
			& 52 0	& 51 0		
Saw Doctors ... ..	72 0	72 0	70 0	69 0	72 0	66 0
Saw Sharpeners ... ..	60 0	60 0	60 0	60 0	60 0	48 0
Wood Turners ... ..	63 0	60 0	62 0	57 0	72 0	54 0

\* The rates specified are in most cases the minimum rates payable in the capital towns to journeymen or adult workers under Awards of Commonwealth or State Arbitration Courts, or under Determinations of Wages Boards. Rates payable in the mining, shipping, agricultural, pastoral, etc., industries do not, of course, ordinarily refer to the capital towns.

(1) 44 hours per week.



## WEEKLY RATES OF WAGES, ETC.—Continued.

## II.—ENGINEERING, METAL WORKS, ETC.\*

Occupations.	Sydney.	Melb.	Brisbane.	Adelaide.	Perth.	Hobart.
	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
<b>Electrical Trades.</b>						
Fitters ...	66 0	63 0	66 0	66 0	72 0	63 0
Lamp Attendants ...	51 0	54 0	48 0	48 0	...	...
Mechanics ...	57 0	63 0	60 0	60 0	72 0	57 0
Wiremen ...	51 0	51 0	50 0	51 0	60 0	51 0
<b>Engineers.</b>						
Blacksmiths ...	72 0	66 0	166 0	69 0	78 0	60 0
Borers and Slotters ...	60 0	60 0	160 0	60 0	66 0	60 0
				& 66 0		
Brass Finishers ...	62 0	54 0	166 0	60 0	72 0	51 0
Coppersmiths ...	72 0	66 0	166 0	69 0	78 0	60 0
Drillers ...	50 0	48 0	158 0	51 0	60 0	60 0
				& 58 0		
Fitters ...	70 0	66 0	166 0	69 0	72 0	60 0
Millers ...	60 0	60 0	160 0	66 0	66 0	60 0
				& 69 0		
Pattern Makers ...	74 0	72 0	168 0	69 0	81 0	60 0
Planers ...	60 0	60 0	160 0	60 0	66 0	60 0
Shapers ...	60 0	54 0	160 0	60 0	66 0	60 0
		& 60 0				
Turners ...	70 0	66 0	166 0	69 0	72 0	60 0
<b>Farriers.</b>						
Floormen ...	60 0	50 0	45 0	54 0	60 0	40 0
Shoeing Smiths...	66 0	57 6	45 0	60 0	66 0	45 0
<b>Iron Moulders.</b>						
Core Makers ...	66 0	56 0	166 0	66 0	69 0	60 0
		& 68 0			& 72 0	
Furnacemen ...	60 0	54 0	148 0	58 0	60 0	42 0
Labourers ...	48 0	48 0	142 0	51 0	54 0	42 0
Machine Moulders ...	62 0	56 0	160 0	60 0	66 0	60 0
<b>Iron Workers' Assistants.</b>						
Boilermakers' Helpers ...	48 0	50 0	144 0	48 0	45 0	48 0
					& 54 0	
Engineers' Labourers ...	48 0	46 6	140 0	48 0	45 0	42 0
					& 54 0	
Labourers ...	46 0	48 0	140 0	48 0	45 0	42 0
					to 54 0	
Smiths' Strikers ...	48 0	48 0	144 0	48 0	48 0	48 0
					& 54 0	
<b>Sheet Metal Workers.</b>						
Canister Makers ...	45 0	54 0	46 0	50 0	...	...
	& 50 0					
Machinists ...	45 0	53 0	46 0	50 0	57 6	...
	& 50 0					
Solderers ...	48 0	53 0	48 0	50 0	57 6	48 0
Tinsmiths ...	60 0	57 0	54 0	52 0	65 0	54 0

\* See footnote \* on page 1130, also remarks re hours of labour at head of that page

(1) 44 hours per week.

## WEEKLY RATES OF WAGES, ETC.—Continued.

## III.—FOOD, DRINK, TOBACCO, ETC.\*

Occupations.	Sydney.	Melb.	Brisbane.	Adelaide.	Perth.	Hobart.
<b>Bakers.</b>	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
Carters ... ..	<sup>1</sup> 52 6	<sup>2</sup> 48 0	<sup>3</sup> 47 6	<sup>4</sup> 48 0	<sup>1</sup> 56 0	<sup>1</sup> 42 0
Daymen ... ..	60 0	60 0	60 0	60 0	63 0	47 6
Jobbers (per hour) ... ..	1 6	1 6	1 6	1 3	1 6	1 3
Single Hands ... ..	65 0	65 0	60 0	60 0	68 0	60 0
			& 65 0			
<b>Brewers.</b>						
Bottle Packers... ..	52 0	54 0	48 0	54 0	54 0	48 0
Bottlers and Washers ... ..	52 0	54 0	48 0	54 0	56 0	48 0
Cellarmen ... ..	54 0	54 0	48 0	54 0	60 0	48 0
Maltsters (Malt Hands) ... ..	54 0	54 0	42 0	57 0	60 0	48 0
Towermen ... ..	56 0	54 0	48 0	54 0	60 0	48 0
<b>Butchers.</b>						
General Hands ... ..	<sup>5</sup> 54 0	<sup>6</sup> 52 0	<sup>7</sup> 52 6	<sup>1</sup> 55 0	<sup>6</sup> 60 0	42 0
Salters ... ..	<sup>6</sup> 65 0	<sup>6</sup> 52 0	<sup>7</sup> 55 0	<sup>1</sup> 55 0	<sup>6</sup> 60 0	42 0
Shopmen ... ..	<sup>5</sup> 55 0	<sup>6</sup> 60 0	<sup>7</sup> 52 6	<sup>1</sup> 60 0	<sup>6</sup> 60 0	51 0
	to 65 0		to 65 0			
Slaughtermen ... ..	80 0	70 0	65 0	60 0	70 0	52 6
			to 70 0			
Small Goodsman ... ..	<sup>5</sup> 65 0	<sup>6</sup> 60 0	<sup>7</sup> 60 0	<sup>1</sup> 60 0	<sup>6</sup> 60 0	51 0
Carters ... ..	<sup>5</sup> 45 0	<sup>4</sup> 45 0	<sup>7</sup> 45 0	48 0	<sup>6</sup> 50 0	<sup>1</sup> 42 0
			& 50 0		& 60 0	
<b>Confectioners.</b>						
Chocolate Dippers ... ..	22 0	22 0	...	20 0	...	...
Head storemen ... ..	55 0	50 0	48 0	50 0	60 0	...
Labourers... ..	45 0	42 0	44 9	48 0	50 0	...
Storemen ... ..	45 0	42 0	44 9	45 0	50 0	...
Sugar, glucose, gelatine, gum, liquorice, & chocolate hands	60 0	54 0	46 8	54 0	60 0	45 0
<b>Ham and Bacon Curers.</b>						
First hand ... ..	80 0	65 0	65 0	...	65 0	57 6
Scalders ... ..	57 6	57 6	56 0	...	54 0	52 6
Slaughtermen ... ..	75 0	65 0	65 0	...	70 0	55 0
Smokers ... ..	57 6	48 0	57 6	...	54 0	52 6
<b>Jam and Preserve Workers.</b>						
Males ... ..	51 0	48 0	48 0	45 0	...	42 0
Solderers ... ..	50 0	48 0	50 0	48 0	...	45 0
Females ... ..	20 0	23 0	20 0	21 0	...	20 0
		& 30 0				& 24 0
<b>Milk Carters.</b> ... ..	<sup>8</sup> 46 0	<sup>9</sup> 45 0	<sup>3</sup> 45 0	<sup>2</sup> 48 0	<sup>2</sup> 56 0	<sup>5</sup> 42 0
<b>Millers.</b>						
Engine Drivers ... ..	52 6	48 0	...	60 0	55 0	47 6
					& 60 0	
Millers ... ..	60 0	55 0	...	60 0	68 0	52 6
Packermen ... ..	48 0	48 0	...	48 0	45 0	42 0
				to 54 0		
Storemen ... ..	48 0	48 0	...	48 0	51 0	50 0
<b>Pastrycooks.</b>						
First Hand ... ..	60 0	56 0	<sup>1</sup> 65 0	60 0	65 0	60 0
Second Hand ... ..	...	50 0	<sup>1</sup> 55 0	...	60 0	47 6

\* See footnote \* on page 1130, also remarks *re* hours of labour at head of that page.

(1) 54 hours per week. (2) 60 hours per week. (3) 58 hours (winter), 60 hours (summer) per week. (4) 58 hours per week. (5) 56 hours per week. (6) 52 hours per week. (7) 52½ hours (winter), 54½ hours (summer) per week. (8) 70 hours per week. (9) 56 hours (winter), 60 hours (summer) per week.

## WEEKLY RATES OF WAGES, ETC.—Continued.

## IV.—CLOTHING, HATS, BOOTS, ETC.\*

Occupations.	Sydney.	Melb.	Brisbane.	Adelaide.	Perth.	Hobart.
	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
<b>Bootmakers.</b>						
Bootmakers ...	54 0	54 0	52 0	54 0	54 0	52 0
Bootmakers ...	25 6	25 6	21 0	20 0	32 0	22 6
		& 32 6				
<b>Dressmakers</b> ...	...	21 6	22 0	16 0	...	20 0
<b>Hatters.</b>						
Felt Hatters ...	70 0	65 0	...	†	...	...
Straw, Blockers ...	55 7	43 0	...	...	...	...
Finishers ...	25 0	18 0	...	...	...	...
Machinists ...	30 0	32 6	...	...	...	...
Stiffeners ...	55 7	43 0	...	...	...	...
<b>Milliners</b> ...	...	22 6	22 5	16 6	...	15 0
<b>Shirt Makers</b> ...	...	22 6	19 8	16 0	...	15 0
<b>Tailors.</b>						
Machinists ...	28 0	22 6	24 0	20 0	40 0	†
		to 25 6			& 45 0	
Pressers ...	60 0	55 0	50 0	55 0	60 0	...
Tailors ...	55 0	60 0	50 0	60 0	70 0	...
Tailoresses ...	26 0	22 6	22 6	20 0	35 0	...
	& 32 6	to 26 0	& 24 0		& 45 0	

## V.—BOOKS, PRINTING, BINDING, ETC.

<b>Bookbinders.</b>						
Bookbinders ...	62 6	58 0	56 0	56 0	65 0	60 0
Feeders, Sewers ...	23 0	21 0	18 6	18 0	...	17 6
	& 25 0	& 23 0		& 22 0		
Paper Rulers ...	62 6	58 0	56 0	56 0	65 0	60 0
<b>Printers—Daily Newspapers.</b>						
Compositors—Day ...	63 0	273 6	373 4	76 0	67 6	...
	to 76 0					
Night ...	80 0	277 0	373 4	80 0	80 0	63 0
	to 88 0					
Linotype Operators—Day ...	†	†	384 0	72 0	280 0	†
Night ...	†	†	384 0	†	290 0	†
Machinists—1st Hand—Day ...	70 0	169 0	365 0	70 0	65 0	...
" " Night ...	80 0	377 0	365 0	70 0	365 0	65 0
Publishers ...	52 6	346 0	350 0	57 0	60 0	55 0
	& 55 0	& 58 8	& 55 0			
Readers—Day ...	70 0	271 9	365 0	76 0	70 0	60 0
" Night ...	90 0	275 3	365 0	80 0	290 0	70 0
Stereotypers (1st Class), Day ...	60 0	169 0	375 0	58 0	65 0	60 0
" " Night ...	70 0	377 0	375 0	64 0	370 0	70 0
<b>Printing—Jobbing Offices, etc.</b>						
Compositors ...	65 0	60 0	56 0	60 0	65 0	60 0
Linotype Operators ...	67 6	270 0	362 6	72 0	280 0	†
Machinists ...	52 6	56 0	47 6	56 0	65 0	60 0
	& 60 0	& 60 0	& 56 0			
Monotype Operators ...	60 0	270 0	356 0	72 0	270 0	...
Readers ...	65 0	64 0	56 0	60 0	65 0	60 0
Stereotypers ...	60 0	60 0	56 0	60 0	65 0	60 0

\* See footnote \* on page 1130, also remarks re hours of labour at head of that page. † Piece Rates. (1) 46 hours per week. (2) 42 hours per week. (3) 44 hours per week. (4) 45 hours per week.

## WEEKLY RATES OF WAGES, ETC.—Continued.

## VI.—OTHER MANUFACTURES.\*

Occupations.	Sydney.	Melb.	Brisbane.	Adelaide.	Perth.	Hobart.
<b>Brickmakers.</b>	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
Brick Burners ...	<sup>1</sup> 66 6	<sup>2</sup> 67 6	<sup>1</sup> 56 0	<sup>2</sup> 60 0	60 0	49 6
Brick Drawers ...	58 0	60 0	46 0	54 0		49 6
Brick Setters ...	58 0	56 0	44 0	56 0	64 0	54 0
Labourers ...	48 0	48 0	40 0	48 0	56 0	48 0
Machinemen ...	54 0	<sup>3</sup> 55 3	<sup>4</sup> 53 8	52 0	62 0	48 0
<b>Coach Makers.</b>						
Body Makers ...	66 0	60 0	<sup>5</sup> 50 11	60 0	63 0	60 0
Painters ...	66 0	60 0	<sup>5</sup> 50 11	60 0	63 0	60 0
Smiths ...	66 0	60 0	<sup>5</sup> 50 11	60 0	63 0	60 0
Trimmers ...	66 0	60 0	<sup>5</sup> 50 11	60 0	63 0	60 0
Wheelwrights ...	66 0	60 0	<sup>5</sup> 50 11	60 0	63 0	60 0
<b>Gasworks Employees.</b>						
Coke Trimmers ...	54 0	52 6	48 0	50 0	54 0	48 0
Engine Drivers ...	60 0	60 0	54 0	60 0	66 0	54 0
Gas Fitters ...	66 0	63 0	60 0	54 0	78 0	60 0
Labourers ...	48 0	48 0	45 0	48 0	54 0	42 0
Stokers ...	60 0	61 6	60 0	60 0	66 0	54 0
					& 73 6	
<b>Glass, Plate, Sheet, and Ornamental.</b>						
Bevellers ...	58 0	48 0	...	60 0	...	60 0
Cutters and Glaziers ...	56 0	50 0	...	48 0	...	...
Lead Light Glaziers ...	60 0	50 0	...	56 0	...	...
Silverers ...	58 0	48 0	...	60 0	...	...
<b>Jewellers.</b>						
Chain Makers ...	60 0	55 0	60 0	60 0	66 0	...
Engravers ...	65 0	60 0	60 0	60 0	66 0	60 0
Mounters ...	60 0	55 0	60 0	60 0	66 0	60 0
Setters ...	65 0	60 0	60 0	60 0	66 0	60 0
Watch and Clockmakers ...	65 0	<sup>6</sup> 70 0	60 0	60 0	66 0	60 0
<b>Monumental Workers.</b>						
Carvers ...	72 0	<sup>7</sup> 69 8	<sup>7</sup> 58 8	70 0	78 0	66 0
Fixers ...	66 0	<sup>7</sup> 64 2	<sup>7</sup> 58 8	60 0	72 0	66 0
Labourers ...	48 0	<sup>7</sup> 50 0	<sup>7</sup> 44 0	48 0	54 0	48 0
Letter Cutters ...	72 0	<sup>7</sup> 66 0	<sup>7</sup> 58 8	66 0	78 0	66 0
Masons ...	66 0	<sup>7</sup> 58 8	<sup>7</sup> 58 8	70 0	78 0	66 0
<b>Saddlers.</b>						
Females ...	24 0	24 0	24 0	30 0	25 0	...
Harness Makers ...	54 0	54 0	54 0	54 0	50 0	50 0
Machinists ...	54 0	54 0	54 0	54 0	50 0	50 0
Saddlers ...	54 0	54 0	54 0	54 0	50 0	50 0

\* See footnote \* on page 1130, also remarks re hours of labour at head of that page.

(1) 56 hours per week. (2) 60 hours per week. (3) 51 hours per week. (4) 52 hours per week. (5) 47 hours per week. (6) 46½ hours per week. (7) 44 hours per week.

## WEEKLY RATES OF WAGES, ETC.—Continued.

## IV.—OTHER MANUFACTURES—(Continued).\*

Occupations.	Sydney.	Melb.	Brisbane.	Adelaide.	Perth.	Hobart.
<b>Tanners.</b>	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
Beamsmen ...	47 0	54 0	50 0	47 0	54 0	55 0
Curriers ...	50 0	57 0	52 6	50 0	57 0	60 0
Machinists, Fleshing ...	47 0	54 0	50 0	47 0	54 0	55 0
„ Scudding ...	44 0	49 0	48 0	42 0	50 0	49 0
„ Shaving ...	45 0	50 0	50 0	50 0	57 0	52 0
„ Splitting ...	50 0	57 0	52 6	50 0	57 0	55 0
„ Unhairing ...	44 0	49 0	48 0	42 0	50 0	52 0
„ Whitening ...	45 0	57 0	48 0	50 0	57 0	57 0
Rollers and Strikers ...	45 0	50 0	50 0	43 0	50 0	52 0
<b>Wickerworkers</b> ...	55 0	57 6	160 6	54 0	...	52 6

## VII.—BUILDING.

(Note.—The hours of labour in Melbourne and Brisbane are 44 per week.)

<b>Bricklayers</b> ...	72 0	71 6	66 0	72 0	78 0	72 0
<b>Carpenters</b> ...	66 0	69 8	60 6	66 0	69 0	66 0
<b>Labourers.</b>						
Bricklayers' Labourers ...	54 0	55 0	52 0	60 0	60 0	48 0
	& 57 0	& 60 6				
Carpenters' „ ...	51 0	52 3	48 0	54 0	54 0	45 0
	& 54 0	& 55 0				
Concrete Workers ...	54 0	44 0	48 0	60 0	60 0	48 0
		& 55 0				
Earth Excavators ...	54 0	44 0	48 0	54 0	54 0	48 0
		& 55 0				
Gear Workers ...	60 0	55 0	56 0	66 0	66 0	48 0
		& 60 6				
Masons' Labourers ...	54 0	55 0	52 0	60 0	60 0	48 0
	& 57 0	& 60 6				
Plasterers' „ ...	54 0	55 0	52 0	60 0	60 0	48 0
	& 57 0	& 60 6				
Scaffold Hands ...	60 0	55 0	56 0	66 0	66 0	48 0
		& 60 6				
<b>Lathers</b> ...	72 0	71 6	60 6	72 0	78 0	68 0
<b>Masons</b> ...	173 4	64 2	60 6	72 0	78 0	66 0
		& 71 6				
<b>Painters.</b>						
Glaziers ...	64 0	60 6	55 0	60 0	66 0	54 0
Painters ...	64 0	60 6	55 0	60 0	66 0	54 0
Paperhangers ...	64 0	60 6	55 0	60 0	66 0	54 0
Signwriters ...	66 0	60 6	55 0	60 0	72 0	60 0
<b>Plasterers</b> ...	66 0	64 2	60 6	72 0	78 0	68 0
		& 74 8				
<b>Plumbers.</b>						
Galvanised Iron Workers ...	66 0	66 0	66 0	66 0	78 0	57 0
Gasfitters ...	66 0	66 0	66 0	66 0	78 0	57 0
Plumbers ...	66 0	66 0	66 0	66 0	78 0	57 0
<b>Slaters</b> ...	72 0	71 6	60 6	72 0	78 0	66 0
<b>Tilers</b> ...	72 0	71 6	60 6	72 0	78 0	66 0
<b>Tuckpointers</b> ...	72 0	64 2	60 6	72 0	78 0	...

\* See footnote \* on page 1130, also remarks re hours of labour at head of that page.

(1) 44 hours per week.

## WEEKLY RATES OF WAGES, ETC.—Continued.

## VIII.—RAILWAY AND TRAMWAY SERVICES.\*

Occupations.	Sydney.	Melb.	Brisbane.	Adelaide.	Perth.	Hobart.
	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
<b>Railway Employees.†</b>						
Engine Drivers (Loco.) ...	60 6	69 0	57 0	72 0	72 0	60 0
	to 90 0	to 87 0	to 87 0	to 90 0	to 90 0	to 72 0
Firemen ...	54 0	48 0	45 0	54 0	54 0	45 0
	to 60 0	to 57 0	to 60 0	to 66 0	to 66 0	to 54 0
Guards ...	51 0	48 0	49 6	51 0	60 0	48 0
	to 66 0	to 72 0	to 84 0	to 69 0	to 75 0	to 72 0
Porters ...	48 0	42 0	45 0	48 0	54 0	39 0
	to 54 0	to 51 0	to 51 0	to 51 0	to 60 0	to 48 0
Shunters ...	51 0	48 0	48 0	51 0	57 0	48 0
	to 72 0	to 66 0	to 72 0	to 57 0	to 75 0	to 57 0
Signalmen ...	54 0	51 0	48 0	51 0	54 0	45 0
	to 78 0	to 75 0	to 67 6	to 66 0	to 81 0	to 57 0
<b>Tramway (Electric) Employees†</b>						
Car Washers or Cleaners ...	51 0	48 0	51 0	51 0	48 0	48 0
		& 51 0			to 57 0	
Conductors ...	54 0	57 0	57 0	57 0	48 0	51 0
					to 60 0	
Firemen (four fires) ...	...	60 0	60 0	60 0	...	...
" (less than four fires) ...	...	54 0	57 0	57 0	...	...
Horse Drivers ...	...	48 0	51 0	48 0	55 0	48 0
		& 51 0				
Labourers... ..	45 0	48 0	48 0	48 0	48 0	48 0
	& 48 0	& 51 0			& 54 0	
Lampmen, Trimmers ...	45 0	51 0	51 0	51 0	...	...
Maintenance men, Fettlers ...	48 0	48 0	54 0	54 0	48 0	48 0
		& 51 0			to 58 0	
Motormen... ..	60 0	57 0	57 0	57 0	48 0	57 0
					to 60 0	
Night Watchmen ...	...	48 0	48 0	48 0	48 0	50 0
Overhead Wiremen (Leading) ...	...	63 0	63 0	60 0	...	...
" " (Other) ...	...	54 0	54 0	54 0	...	48 0
		& 57 0	& 60 0			
Pitmen ...	60 0	60 0	57 0	57 0	48 0	...
					to 63 0	
Signalmen ...	60 0	60 0	60 0	60 0	...	...
	to 66 0					
Track Cleaners ...	45 0	48 0	51 0	51 0	48 0	48 0
		& 51 0			to 58 0	
Tower Wagon Drivers ...	50 0	48 0	...	48 0	...	...
	& 60 0	& 51 0		& 54 0		
Trimmers or Fuel Men ...	48 0	...	51 0	51 0	48 0	...

## IX.—OTHER LAND TRANSPORT.

Carriers.						
One Horse ...	150 0	245 0	347 6	448 0	50 0	442 0
Two Horses ...	155 0	250 0	352 0	450 0	55 0	447 0

\* See footnote \* on page 1130, also remarks re hours of labour at head of that page.

† The hours of labour for Railway Employees are 48 per week (in N.S.W. 96 per fortnight), except in the following cases:—N.S.W.—Porters, 108 to 120 hours per fortnight; VICTORIA—Porters, 48 to 60 hours per week; SOUTH AUSTRALIA—Porters and Signalmen, 48 to 57 hours per week; and TASMANIA—Guards and Shunters, 54, and Porters 48 to 54 hours per week. Owing to the difference in the classification of grades of Railway Employees in the various States, only minimum and maximum rates are quoted, excluding those for Foremen. ‡ For New South Wales the Wages are determined by a State Award. For Victoria, Western Australia and Tasmania, agreements have been made under Commonwealth Arbitration Act. For Queensland and South Australia, Awards have been made by the Commonwealth Court of Conciliation and Arbitration. By Commonwealth agreements the wages for Grippers and Conductors in Melbourne have been fixed as follows:—Conductors, 55s. and 57s. per week; Grippers, 55s. and 57s. per week. || The maximum rate applies to night work.

(1) 56½ hours per week. (2) 58½ hours per week. (3) 58 hours (winter) 60 hours (summer) per week. (4) 54 hours per week.

## WEEKLY RATES OF WAGES, ETC.—Continued.

## X.—SHIPPING, WHARF LABOUR, ETC.\*

Occupations.	Sydney.	Melb.	Brisbane.	Adelaide.	Perth.	Hobart.
	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
<b>Marine Engineers.†</b>	<b>LOWEST CLASS.</b>		<b>HIGHEST CLASS.</b>			
	<i>Under 100 N.H.P.</i>		<i>600 or more N.H.P.</i>			
	s.		s.			
Chief ... per month	440		680			
Second ... "	350		440			
Third ... "	310		360			
Fourth ... "	...		300			
5th, 6th, 7th, 8th ... "	...		240			
	<b>INTERSTATE</b>		<b>INTERSTATE</b>			
	<b>PASSENGER</b>	<b>VESSLS.</b>	<b>CARGO</b>	<b>VESSLS.</b>		
	<i>Lowest</i>	<i>Highest</i>	<i>Lowest</i>	<i>Highest</i>		
	<i>Class, 250</i>	<i>Class, over</i>	<i>Class, 250</i>	<i>Class, over</i>		
	<i>tons &amp; under.</i>	<i>4000 tons.</i>	<i>tons &amp; under.</i>	<i>4000 tons.</i>		
<b>Merchant Service.‡</b>	420s.		860s.		400s.	
Masters ...	300s.		400s.		280s.	
Officers, Chief ...	240s.		340s.		240s.	
„ Second ...	...		280s.		...	
„ Third ...	...		...		260s.	
„ Fourth and Fifth ...	...		200s.		...	
<b>Seamen.</b>						
A.B.'s ... per month	...		160s.		...	
Boatswains ...	...		180s.		...	
Donkeymen ...	...		220s.		...	
Firemen ...	...		200s.		...	
Greasers ...	...		200s.		...	
Trimmers ...	...		160s.		...	
<b>Waterside Workers.</b>						
Coal Lumpers ... per hour	1 7½	1 5	1 7½	1 6.	1 7	1 5
Wharf Labourers ...	1 6	1 5	1 5	1 5	1 6	1 5

## XI.—AGRICULTURAL, PASTORAL, ETC.

## Agricultural Workers, Etc.

Minimum rates in the agricultural industries have not generally been fixed by industrial tribunals. The following particulars relate to weekly predominant or most frequent rates for adult workers:—

General farm hands, 20s. to 25s\$.—Ploughmen, 20s. to 30s\$. Harvesters, 30s. to 40s.; Milkmen, 20s. to 30s.; Threshers, 30s. to 40s.

Fruit Harvesters ... 1s. per hour  
Chaffcutters ... 1s. to 1s. 1½d. per hour.

## Gardeners.

Gardeners ...	48 0	48 0	48 0	51 0	54 0	48 0
„ Labourers ...	45 0	45 0	42 0	48 0	48 0	42 0
General Nursery Hands ...	48 0	48 0	48 0	51 0	60 0	48 0
Nursery Labourers ...	45 0	42 0	42 0	48 0	48 0	42 0

## Pastoral Workers.||

Shearers ... per 100	24 0	24 0	24 0	24 0	25 0	24 0
Shed Hands ...	37 6s	37 6s	37 6s	37 6s	46 0s	37 6s
Cooks, per man per week	4 0	4 0	4 0	4 0	6 0	50 0

\* See footnote \* on page 1130, also remarks at head of that page.

† Minimum rates under the Commonwealth Award are classified according to nominal horsepower of vessel; the lowest and highest classes are here specified. ‡ Minimum rates under the Commonwealth Award are classified for Interstate vessels, and for vessels within a State according to tonnage; the lowest and highest classes for Interstate passenger and cargo vessels are here given. || The rates specified for New South Wales, Victoria, Queensland, and South Australia are the minimum rates under the Award of the Commonwealth Court of Conciliation and Arbitration; for Western Australia and Tasmania the rates are those arranged under industrial agreements. § And found. ¶ Per week.

## WEEKLY RATES OF WAGES, ETC.—Continued.

## XII.—DOMESTIC, HOTELS, ETC.†

Occupations.	Sydney.	Melb.	Brisbane.	Adelaide.	Perth.	Hobart.
	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
<b>Hotel, Restaurant Workers.</b>						
<i>Barmaids</i> ...	120 0*	237 6	340 0		465 0	20 0†
<i>Barmen</i> ...	130 0*	150 0	45 0	...	465 0	25 0
			& 550 0			to 40 0
<i>Billiard Markers</i> ...	125 0*	142 6	540 0	...	40 0	15 0
						to 20 0†
<i>Handy Men</i> ...	20 0*	135 0	537 6	...	25 0†	10 0
						to 15 0
<i>Housemaids</i> ...	13 0*	230 0	515 0†	...	22 6†	11 0
						to 15 0†
<i>Laundresses</i> ...	20 0*	235 0	520 0†	...	25 0†	15 0†
<i>Porters</i> ...	25 0	137 6	540 0	...	30 0†	15 0
	to 32 6*	to 42 6				to 20 0†

## XIII.—MISCELLANEOUS AND GENERAL LABOUR.

<b>Engine Drivers.</b>						
<i>Stationary</i> ...	48 0	48 0	54 0	54 0	54 0	45 0
	to 66 0	to 66 0	to 66 0	to 66 0	to 72 0	to 60 0
<i>Firemen—First Class</i> ...	54 0	54 0	51 0	54 0	57 6	48 0
<i>Second Class</i> ...	51 0	48 0	48 0	48 0	48 0	45 0
<b>Municipal Employees.</b>						
<i>Labourers</i> ...	54 0	51 0	48 0	48 0	54 0	42 0
<i>Street Sweepers (Scavengers)</i>	51 6	51 0	45 0	48 0	54 0	39 0
	& 54 0					
<b>Shop Assistants.</b>						
<i>Boots—Males</i> ...	752 6	750 0	755 0	757 6	45 0	837 6
					to 55 0	
<i>Females</i> ...	730 0	727 6	730 0	727 6	20 0	815 0
					to 30 0	
<i>Drapers—Males</i> ...	752 6	58 0	755 0	757 6	45 0	840 0
					to 55 0	
<i>Females</i> ...	730 0	30 0	730 0	727 6	20 0	815 0
					to 30 0	to 20 0
<i>Furniture</i> ...		60 0	755 0	755 0	45 0	...
				to 57 6	to 55 0	
<i>Grocers</i> ...	852 6	850 0	750 0	1055 0	45 0	835 0
					to 55 0	
<i>Hardware</i> ...		760 0	755 0	755 0	45 0	840 0
				to 57 6	to 55 0	
<i>Men's Clothing</i> ...	752 6	60 0	755 0	757 6	45 0	...
					to 55 0	
<b>Storemen, Packers, etc. (Shops).</b>						
<i>Night Watchmen</i> ...	1150 0	1154 0	1140 0	1156 0	1150 0	1140 0
<i>Packers</i> ...	851 0	35 0	47 6	48 0	850 0	...
		to 50 0				
<i>Storemen</i> ...	848 0	40 0	47 6	48 0	850 0	850 0
		to 50 0				

† See footnote \* on page 1130, also remarks re hours of labour at head of that page.

\* When board not provided the rates are 10s. per week higher.

† With board and lodging.

§ The determination fixing the rates for hotel and restaurant workers has been quashed.

(1) 56 hours per week. (2) 56 hours per week. (3) 55 hours per week. (4) 54 hours per week. (5) 60 hours per week. (6) 63 hours per week. (7) 50 hours per week. (8) 52 hours per week. (9) 53 hours per week. (10) 51 hours per week. (11) 72 hours per week.



**3. Relative Wages and Wage Index-Numbers in Different Industries and States, 1913.**—From the rates given in the preceding statement, the following weighted average rates have been computed for each State and the Commonwealth. Taking the average for the whole Commonwealth as the base (=1000), index-numbers for each State are also shewn.

The figures given in the following table are exclusive of any rates in Groups XI. (Shipping, etc.) and XII. (Agricultural, Pastoral, etc.), sufficient data for the satisfactory computation of an average in these two groups not being available.

**WEIGHTED AVERAGE NOMINAL WEEKLY RATES OF WAGES PAYABLE TO JOURNEYMEN OR MALE ADULT WORKERS FOR A FULL WEEK'S WORK, AND WAGE INDEX-NUMBERS IN EACH STATE AND COMMONWEALTH, 1913.**

Particulars.	N.S.W.	Vic.	Q'land.	S.A.	W.A.	Tas.	Commonwealth.
Number of Occupations included ...	312	324	251	263	216	203	1,569
Weighted Average Weekly Rates of Wages ...	s. d. 55 3	s. d. 54 4	s. d. 54 6	s. d. 55 3	s. d. 64 1	s. d. 48 6	s. d. 55 4*
Index-Numbers ...	998	982	984	998	1,158	876	1,000*

\* Weighted average.

The results given in the above table must be taken subject to the qualifications (a) that they are based only on a limited number of rates of wages, and (b) that the list of occupations to which the wages refer are not by any means uniform in the several States. Any results, in order to be representative for each State, must necessarily be subject to the latter qualification, inasmuch as the industrial occupations of the people are not by any means identical in the several States. A completely satisfactory record of relative rates of wages in the several States can be obtained only by means of an industrial census. The above results are, however, based on wages in a considerable number of important industries, and serve to indicate on general lines with a considerable degree of precision the relative conditions in the several States.

The results shew that (nominal) rates of wages are highest in Western Australia, followed in the order named by New South Wales and South Australia (equal), Queensland and Victoria (practically equal), and Tasmania.

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 is taken as base (= 1000). The results are subject to similar qualifications as those expressed above and in paragraph 2 hereof.

The figures below shew that the highest average wage is that paid in Group V., Printing, etc. (65s. 6d. per week, or 18.3 per cent. above the weighted average for all groups). The rates of wages range from 65s. 6d. per week down to 42s. 9d. per week, the lowest being in Group XIII., Hotels, etc., which is nearly 22 per cent. below the average for all groups.

**WEIGHTED AVERAGE WEEKLY RATES OF WAGES PAYABLE TO JOURNEYMEN OR ADULT MALE WORKERS, FOR A FULL WEEK'S WORK, AND WAGE INDEX-NUMBERS IN EACH INDUSTRIAL GROUP, 1913.**

Industrial Groups.	No. of Rates Included.	Weighted Average Weekly Wage (for Full Week's Work).	Index-Numbers.
		s. d.	
I. Wood, Furniture, etc. ...	124	58 0	1,048
II. Engineering, Metal Works, etc. ...	235	56 6	1,021
III. Food, Drink, etc. ...	206	54 1	977
IV. Clothing, Boots, etc. ...	40	51 6	931
V. Books, Printing, etc. ...	121	65 6	1,183
VI. Other Manufacturing ...	341	55 3	998
VII. Building ...	139	62 10	1,135
VIII. Mining, Quarries, etc. ...	125	60 10	1,099
IX. Railways Services, etc. ...	115	55 11	1,010
X. Other Land Transport ...	12	47 3	854
XI. Shipping, etc.* ...	...	...	...
XII. Agricultural, etc.* ...	...	...	...
XIII. Hotels, etc. ...	29	42 9	772
XIV. Miscellaneous ...	82	52 10	954
All Groups† ...	1,569	55 4	1,000

\* Insufficient data available for the satisfactory computation of an average. † Weighted average, exclusive of Groups XI. and XII.

## § 6.—Retail Prices, House Rents, and Cost of Living.

1. **Introduction.**—In Report No. 1, issued in December, 1912, the results of certain investigations into the subjects of Prices, Price-Indexes and Cost of Living in past years were published, and some account was given of the methods employed for the collection of the data and of the technique adopted in the computation of the results. An important discussion of the theory 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 Report No. 2 results of further investigations were given, and in that Report and in Labour Bulletin No. 1 (published in May last) information was given as to variations in retail and wholesale prices, house-rent, and cost of living up to the end of March, 1913.

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

2. **Scope of Investigation.**—It was pointed out in Report No. 1 that, in any investigation into the question of change in cost of living of a community, a 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 that we shall select a suitable list of commodities, the quantities of each being taken in due proportion to their relative average consumption, and, keeping this list with the quantities constant, ascertain what it costs to purchase the whole group. In this way we can compare the cost in different areas or districts at the same time, as well as the variation in any one place from time to time. This is the "aggregate expenditure" method explained above.

As explained in Report No. 1, special steps were taken to conduct the investigation back as far as 1901 for the capital towns only. The collection of current monthly returns as to prices and of quarterly returns of house rents commenced in thirty of the more important towns of the Commonwealth in January, 1912.

3. **Commodities and Requirements Included.**—The 47 items of expenditure included have been divided into four groups, viz.—(a) groceries and bread, (b) dairy produce, (c) meat, and (d) house rent. The omission of clothing, fuel and light, travelling, amusements, etc., may on a superficial examination appear to limit the value of the results. Against this, reasons for which these items have been omitted were given in Report No. 1\*, and it was explained that index-numbers based on these four groups satisfactorily reflect the general rise and fall in cost of living. It should, moreover, be pointed out that whereas the expenditure on the four groups included amounts to no less than 45 per cent. on the total expenditure, cost of clothing amounts to only 12 per cent., and of fuel and light to as little as 3 per cent. It follows, therefore, that before the index-numbers, based on the four groups, can cease to truly reflect variations in general purchasing value, changes in the price of clothing must have departed very widely, one way or the other, from the general change which has occurred. This applies still more forcibly, of course, to changes in price of fuel and light. Since prices of nearly all commodities generally move in the same direction, it is obvious that the validity of the index-numbers, based on the four groups referred to, can be vitiated only under a quite abnormal state of affairs, and even then only to a slight extent.

In Report No. 2 (pages 46-7) 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 Cost of Living in each Metropolitan Town, 1901 to 1912.**—In Reports Nos. 1 and 2 and Labour Bulletin No. 1 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 (=1000). In this section only summarised results are given. Firstly, for food and groceries; secondly, for house rent; and thirdly, for all groups combined. The index-numbers are shewn on the graphs on pages 1142 and 1143.

\* See "Prices, Price-Indexes and Cost of Living in Australia," Labour and Industrial Branch Report No. 1, by G. H. Knibbs, C.M.G., F.S.S., etc., December, 1912, pp. 15 to 20.

(i.) *Food and Groceries.* The index-numbers thus computed for the three groups comprising groceries and food are shown in the following table:—

**RETAIL PRICES IN METROPOLITAN TOWNS, INDEX-NUMBERS FOR GROCERIES AND FOOD (GROUPS I., II., AND III.), 1901 to 1912.**

TOWN.	1901.	1902.	1903.	1904.	1905.	1906.	1907.	1908.	1909.	1910.	1911.	1912.
Sydney ...	927	1,078	1,040	886	982	974	946	1,041	1,023	1,011	1,000	1,136
Melbourne ...	1,032	1,085	1,041	980	1,018	1,010	989	1,064	1,015	1,026	1,000	1,156
Brisbane ...	948	998	970	877	928	943	980	1,006	966	983	1,000	1,082
Adelaide ...	1,008	1,007	963	922	974	963	933	930	1,006	981	1,000	1,132
Perth ...	890	946	953	899	935	919	890	911	901	930	1,000	999
Hobart ...	955	992	996	927	973	990	955	997	1,033	1,015	1,000	1,125
Weighted Average* ...	972	1,056	1,019	924	986	980	955	1,031	1,006	1,005	1,000	1,129

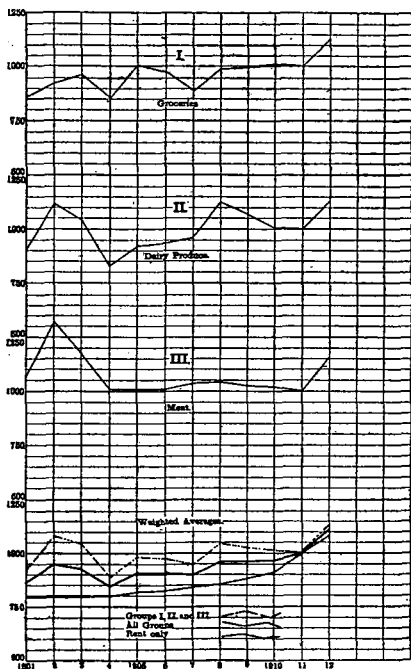
\* For all capital towns.

NOTE.—The above figures are comparable horizontally, but are not directly comparable in the vertical columns. The index-numbers are reversible.

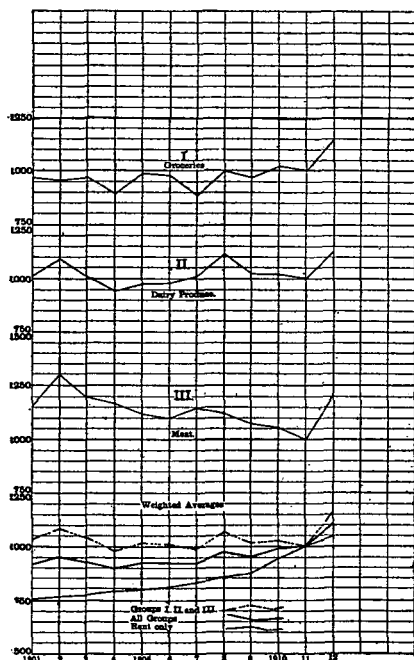
The price indexes for groceries and food are shewn by the broken lines on the graphs on this and the following page in relation to the price-indexes for house rent alone, and to the weighted averages for all groups. It may be seen that there is considerable similarity between the graphs for Sydney, Melbourne, and Brisbane, the price-level being high in 1902, 1908, and 1912, and low in 1904. The fluctuations are more marked in Sydney than in either of the other two towns. In all the capital towns prices for groceries and food reached their maximum in 1912, and, reviewing the whole of the period, it may be seen that, broadly speaking, prices have tended to move upward.

**RETAIL PRICES, HOUSE RENT, AND COST OF LIVING IN METROPOLITAN TOWNS, GRAPHS 1901 TO 1912.**

SYDNEY.

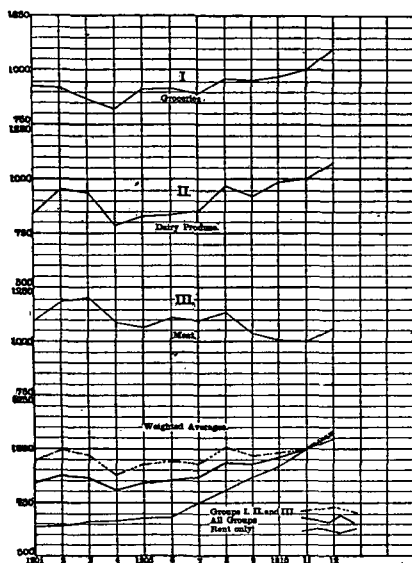


MELBOURNE.

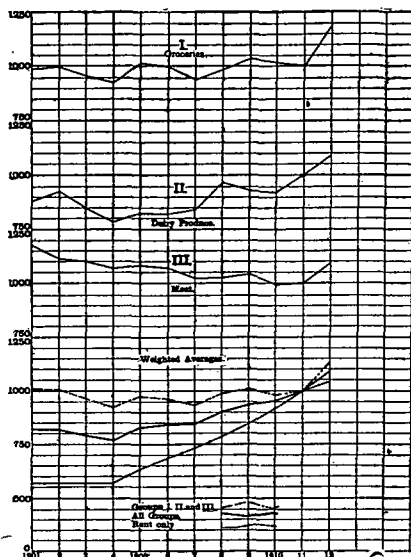


RETAIL PRICES, HOUSE RENT, AND COST OF LIVING IN METROPOLITAN TOWNS.  
GRAPHS 1901 TO 1912.

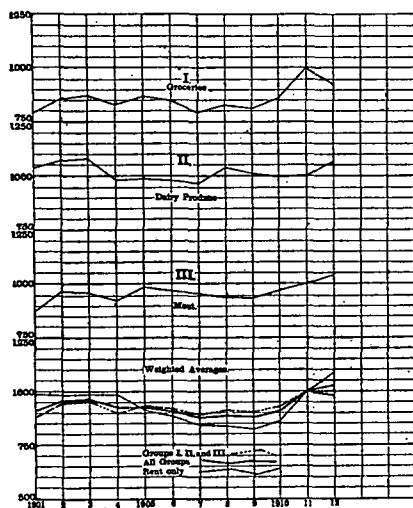
BRISBANE.



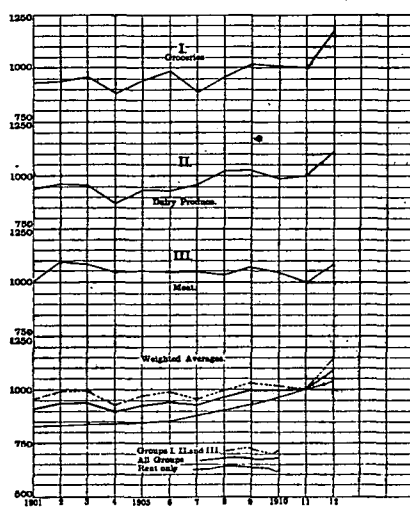
ADELAIDE.



PERTH AND FREMANTLE.



HOBART.



The increase for the three groups combined was greatest in Melbourne, followed in, the order named, by Sydney, Adelaide, Hobart and Brisbane. It is obvious, of course, that the conditions governing prices in Perth, where there was a small fall in price level, are in many respects very different to those in the Eastern States.

(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 1912, taking the average rent in 1911 as the base (= 1000). The average rent has been obtained for each town separately by multiplying the average predominant rent for each class of house (i.e., houses having less than 4 rooms, 4 rooms, 5 rooms, 6 rooms, 7 rooms, and over 7

rooms) by a number ("weight") representing the relative number of houses of that class in the particular town. The sum of the products thus obtained, divided by the sum of the weights, gives the weighted average for all houses. 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 and 2, 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 1912.**

TOWN.	1901.	1902.	1903.	1904.	1905.	1906.	1907.	1908.	1909.	1910.	1911.	1912.
Sydney ...	792	792	794	797	818	822	840	851	880	910	1,000	1,085
Melbourne ...	756	767	771	788	795	806	829	854	868	895	1,000	1,047
Brisbane ...	637	641	660	662	676	683	750	803	862	912	1,000	1,048
Adelaide ...	566	566	566	566	631	684	730	784	845	916	1,000	1,043
Perth ...	988	982	989	985	912	893	844	837	823	859	1,000	1,086
Hobart ...	829	831	836	838	846	852	880	904	931	964	1,000	1,030
Weighted Average*	755	759	763	770	784	794	818	841	868	921	1,000	1,063

\* For all capital towns.

NOTE.—The figures in the above table are comparable horizontally, but are not directly comparable in the vertical columns. The index-numbers are reversible.

The above figures are shewn on the graphs on pages 1142 and 1143, in relation to the combined price-indexes for the other groups, and for all groups together. It may be seen that, except in Adelaide, where rents remained constant from 1901 to 1904, and in Perth, where they decreased from 1903 to 1909, there has been a uniform increase in each metropolitan town during the whole of the period under review. The increase has been greater in Adelaide (where the average rent in 1901 was only 566, compared with 1000 in 1911, and 1051 in 1912), and in Brisbane than in the other towns. It should be observed, however, that at the commencement of the period rents were exceptionally low in Adelaide, and were comparatively low in Brisbane (see Appendix IV. to Report No.1). The graph for Perth presents features entirely different from those for the other towns; the fall in rents commencing in 1903 and lasting until 1907 is followed, after another temporary decline in 1909, by a rapid rise.

(iii.) *Cost of Living.*—The weighted averages for all four groups are of importance, as indicating the general results of this investigation so far as cost of living is concerned. The following table shews the index-numbers for groceries, food, and house-rent for each metropolitan town, computed to the year 1911 as base (= 1000):

**COST OF LIVING IN METROPOLITAN TOWNS, INDEX-NUMBERS SHEWING  
WEIGHTED AVERAGE RESULTS FOR ALL GROUPS (GROCERIES, DAIRY  
PRODUCE, MEAT, AND HOUSE RENT), 1901 TO 1912.**

TOWN.	1901.	1902.	1903.	1904.	1905.	1906.	1907.	1908.	1909.	1910.	1911.	1912.
Sydney ...	866	950	929	846	909	906	898	956	959	965	1,000	1,113
Melbourne ...	916	951	927	899	924	924	922	976	953	992	1,000	1,111
Brisbane ...	841	875	863	803	841	853	868	936	930	959	1,000	1,071
Adelaide ...	817	816	791	768	826	843	845	901	936	953	1,000	1,094
Perth ...	912	957	964	925	928	909	876	889	878	909	1,000	1,025
Hobart ...	911	937	941	897	929	942	929	965	998	997	1,000	1,092
Weighted Average*	880	929	910	858	901	902	897	951	948	970	1,000	1,101

\* For all capital towns.

NOTE.—The figures shewn in the above table are comparable horizontally, but are not directly comparable in the vertical columns. The index-numbers are reversible.

These figures are shewn separately for each town by the heavy line in the graphs on pages 1142 and 1143, in comparison with graphs shewing index-numbers for groceries and

food, and for house-rents. In all the towns the graphs disclose a distinct upward movement during the period under review, the rise in 1912 being particularly marked.

Generally speaking, prices were low in 1904, high in 1902 and 1908, and still higher in 1912. The general trend of the graph for Perth is different to that for the other towns, owing mainly to the decline in house-rents in that place, which occurred from 1903 to 1907, and again in 1909.

The general result for all the six towns shews that cost of living was slightly over 10 per cent. higher in 1912 than in 1911. The amount of the increase was almost identical in Sydney and Melbourne, and in Adelaide and Hobart. It was somewhat lower in Brisbane than in either of the four towns just referred to, and was least in Perth.

5. **Relative Cost of Living in Different Towns, 1912.**—The index-numbers given in the preceding paragraphs shew *changes in the cost of living separately for each individual town during the years 1901 to 1912*. The figures given in the table below shew *the relative cost of living in 1912 in the thirty towns*, for which particulars are now being collected. The cost of living in each town is compared with the weighted average for all towns. That is to say, the average expenditure in each town has been weighted by a number representing the population of the town, and a weighted average expenditure for all towns has been computed. Taking this average expenditure as the base (= 1000), the relative expenditure in each town is shewn. Owing to the concentration of population in the capital towns, the prices and rents in these towns have a preponderating influence on the weighted average index-numbers for all towns combined.

**COST OF LIVING 1912.—INDEX-NUMBERS SHEWING RELATIVE COST IN EACH OF THIRTY TOWNS (INCLUDING 4, 5, AND 6-ROOMED HOUSES AND ALL HOUSES), COMPARED WITH WEIGHTED AVERAGE COST FOR ALL TOWNS.**

Town.	Groceries and Food.	HOUSE RENT.				GROCERIES, FOOD, AND RENT, INCLUDING HOUSES HAVING—			
		4-r'm'd Houses only.	5-r'm'd Houses only.	6-r'm'd Houses only.	All Houses. Weightd Average.	4 Rooms.	5 Rooms.	6 Rooms.	All Houses. Weightd Average.
<b>N.S. WALES—</b>									
Sydney ...	986	1,273	1,213	1,191	1,237	1,078	1,070	1,071	1,082
Newcastle ...	995	645	752	767	688	883	905	900	877
Broken Hill ...	1,186	831	838	814	679	1,073	1,058	1,031	991
Goulburn ...	990	616	843	861	904	871	936	936	957
Bathurst ...	950	635	639	669	672	849	835	833	843
<b>VICTORIA—</b>									
Melbourne ...	949	977	978	996	1,000	958	960	968	969
Ballarat ...	973	477	538	579	624	815	813	809	839
Bendigo ...	976	588	619	647	649	852	844	839	851
Geelong ...	952	719	775	836	854	878	887	904	915
Warrnambool ...	928	715	734	727	747	860	856	844	858
<b>QUEENSLAND—</b>									
Brisbane ...	966	678	696	753	792	874	867	877	899
Toowoomba ...	965	618	701	672	788	854	868	842	897
Rockhampton ...	1,002	625	611	656	694	882	858	858	884
Charters Towers ...	1,134	602	674	646	592	964	965	931	926
Warwick ...	1,003	727	723	718	790	915	900	884	921
<b>S. AUSTRALIA—</b>									
Adelaide ...	1,012	1,173	1,245	1,210	1,143	1,064	1,093	1,095	1,062
Moonta, etc. ...	1,014	523	570	618	567	858	851	849	843
Port Pirie ...	1,048	845	793	738	720	983	954	919	922
Mt. Gambier ...	904	606	625	639	640	809	802	793	803
Petersburg ...	1,018	837	840	823	791	960	953	936	931
<b>W. AUSTRALIA—</b>									
Perth ...	1,180	968	971	952	867	1,112	1,103	1,085	1,060
Kalgoorlie, etc. ...	1,471	1,136	1,128	1,103	830	1,364	1,345	1,318	1,235
Mid. Junct., etc. ...	1,209	760	863	875	745	1,066	1,082	1,070	1,031
Bunbury ...	1,231	869	830	842	664	1,115	1,083	1,069	1,013
Geraldton ...	1,237	1,356	1,361	1,235	1,017	1,275	1,283	1,236	1,152
<b>TASMANIA—</b>									
Hobart ...	1,044	821	807	789	816	973	957	938	957
Launceston ...	985	766	801	803	806	915	917	909	916
Zeehan ...	1,142	572	684	685	443	960	973	951	874
Beaconsfield ...	1,054	352	321	310	286	830	784	743	759
Queenstown ...	1,130	711	700	748	548	996	972	971	907
<b>Weighted Average</b>	<b>1,000</b>	<b>1,000</b>	<b>1,000</b>	<b>1,000</b>	<b>1,000</b>	<b>1,000</b>	<b>1,000</b>	<b>1,000</b>	<b>1,000</b>

Some few words as to the proper interpretation of the above table may not be out of place. The weighted average for all towns represents the price paid, on the average, by

the people of all the towns regarded as a single community. In other words, if the people of the thirty towns are paying *on the average* £1000 for groceries and food, the people in Sydney are paying £986, those in Newcastle £995, and so on. (See column I.) Or again, if the people of the thirty towns are paying on the average £1000 for the four series of items, then those of Melbourne are paying £969, of Ballarat £839, and so on. (See final column.) Thus, in this table, the figures are *comparable vertically, but are not directly comparable horizontally*, and this is to be carefully borne in mind in making comparison. That they are not directly comparable horizontally is immediately evident when it is remembered that each series, or group, for all towns is represented by the one figure—1000—though actually they do not represent equal amounts.

Comparing the first column with the fifth and last columns, it may be seen that the relative costs in the different towns in regard to the two main divisions, and the weighted average for all groups combined, differ considerably. Thus, in Sydney the index-number for rent (all houses), is 1237, or 23.7 per cent., above the weighted average for all towns, whereas the index-number for groceries and food is 986, or 1.4 per cent. below the average. In Brisbane, on the other hand, the index-number for groceries and food is greater than that for house-rent, both numbers being below the weighted average. In some of the smaller towns, too, especially in the mining districts, it may be seen that rents are very low, and groceries high, compared with the weighted average.

**6. Variation in Purchasing Power of Money, 1901 to March, 1913.**—In several of the tables given in the preceding paragraphs, attention has been drawn to the fact that the index-numbers are not directly comparable either horizontally or else in the vertical columns. The reasons for this were also pointed out. By combining the figures given for the capital towns on page 1144 (a) shewing variations in cost of living from year to year in each town separately, and (b) shewing relative cost of living in the several towns during the year 1912, results which are in all respects comparable may be obtained. These are shewn in the following table, in which the average cost for the six capital towns in the year 1911 has been taken as the base. This base has been taken as equal to 20s., instead of 1000, as in the former tables.

**PURCHASING POWER OF MONEY.—AMOUNTS NECESSARY ON THE AVERAGE IN EACH YEAR FROM 1901 TO 1st QUARTER OF 1913 TO PURCHASE IN EACH CAPITAL TOWN WHAT WOULD HAVE COST ON THE AVERAGE £1 IN 1911 IN THE AUSTRALIAN CAPITALS REGARDED AS A WHOLE.**

Year.	Sydney.		Melb'ne.		Brisbane.		Adelaide.		Perth.		Hobart.		Weighted Average of 6 Capital Towns.		
	s.	d.	s.	d.	s.	d.	s.	d.	s.	d.	s.	d.	s.	d.	
1901	...	18	2	17	3	15	2	17	1	20	4	17	3	17	7
1902	...	19	11	17	11	15	10	17	1	21	4	17	9	18	7
1903	...	19	6	17	6	15	7	16	7	21	5	17	10	18	2
1904	...	17	9	16	11	14	6	16	1	20	7	17	0	17	2
1905	...	19	1	17	5	15	2	17	3	20	8	17	7	18	0
1906	...	19	0	17	5	15	5	17	8	20	3	17	10	18	0
1907	...	18	10	17	4	15	8	17	8	19	6	17	7	17	11
1908	...	20	1	18	5	16	11	18	10	19	9	18	3	19	0
1909	...	20	2	17	11	16	10	19	7	19	6	18	11	19	0
1910	...	23	3	18	8	17	4	19	11	20	3	18	10	19	5
1911	...	21	0	18	10	18	1	20	11	22	3	18	11	20	0†
1912	...	23	4	20	11	19	4	22	11	22	10	20	8	22	0
1912 (1st quarter)*		21	9	19	6	19	3	22	4	22	1	19	4	20	9
1912 (4th quarter)†		24	3	21	6	19	6	23	0	22	7	21	11	22	7
1913 (1st quarter)*		23	9	20	9	18	11	22	5	22	3	20	10	22	0

\* January to March. † October to December. ‡ Basis of Table.

These figures shew not only the variations in cost of living from year to year in each town separately, but also (in the horizontal lines) the relative cost in the several towns in each year. Thus each value given for any town and year is directly comparable with any other value. It may be seen, for example, that 18s. 2d. in Sydney in 1901 was equivalent to 17s. 5d. in Melbourne, or to 20s. 3d. in Perth in 1906, and to 20s. on the average in all six towns in 1911, and to 23s. 9d. in Sydney in the first quarter of 1913.



While the figures in each vertical column shew the increase and decrease in cost of living from year to year in each town respectively, those in the horizontal lines shew the relative cost of living in any given year.

(i.) *Groceries and Food only.* The following table has been computed in the same manner as that indicated above, but relates to *groceries and food* (46 items) *only*. The average expenditure for the six capital towns in 1911 has again been taken as the basis of the table (= 20 shillings) and the figures are, of course, comparable throughout.

**PURCHASING POWER OF MONEY.—GROCERIES AND FOOD ONLY.—AMOUNT NECESSARY ON THE AVERAGE IN EACH YEAR FROM 1901 TO 1st QUARTER OF 1913 TO PURCHASE IN EACH CAPITAL TOWN WHAT WOULD HAVE COST ON THE AVERAGE £1 IN 1911 IN THE AUSTRALIAN CAPITALS REGARDED AS A WHOLE.**

Year.	Sydney.	Melb'ne.	Brisbane.	Adelaide.	Perth.	Hobart.	Weighted Average of 6 Capital Towns.
	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
1901 ...	18 4	19 4	19 4	20 7	23 8	20 3	19 4
1902 ...	21 4	20 4	20 4	20 6	25 6	21 0	21 1
1903 ...	20 7	19 6	19 9	19 8	25 8	21 1	20 4
1904 ...	17 6	18 4	17 10	18 10	24 3	19 8	18 5
1905 ...	19 5	19 1	18 11	19 10	25 2	20 7	19 8
1906 ...	19 3	18 11	19 2	19 8	24 9	20 11	19 7
1907 ...	18 9	18 6	18 11	19 0	23 11	20 2	19 1
1908 ...	20 7	19 11	20 6	20 2	24 6	21 1	20 7
1909 ...	20 3	19 0	19 8	20 6	24 3	21 10	20 1
1910 ...	20 0	19 2	20 0	20 0	25 0	21 6	20 1
1911 ...	19 9	18 8	20 4	20 5	26 11	21 2	20 0*
1912 ...	22 6	21 8	22 0	23 1	26 11	23 10	22 6
1912 (1st quarter)†	20 9	19 9	21 11	22 0	26 0	21 10	21 0
1912 (4th „)‡	23 6	22 3	22 3	23 6	26 1	25 9	23 2
1913 (1st „)†	22 9	20 9	20 9	22 5	25 6	23 2	22 0

\* Basis of Table. † January to March. ‡ October to December.

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

**PURCHASING POWER OF MONEY.—HOUSE RENTS.—AMOUNT PAYABLE ON THE AVERAGE IN EACH YEAR FROM 1901 TO 1st QUARTER OF 1913 FOR HOUSE RENT IN EACH CAPITAL TOWN, COMPARED WITH A RENT OF £1 IN 1911 IN THE AUSTRALIAN CAPITALS REGARDED AS A WHOLE.**

Year.	Sydney.	Melb'ne.	Brisbane.	Adelaide.	Perth.	Hobart.	Weighted Average of 6 Capital Towns.
	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.	s. d.
1901 ...	17 11	14 4	9 6	12 3	15 7	13 0	15 1
1902 ...	17 11	14 6	9 7	12 3	15 6	13 1	15 2
1903 ...	17 11	14 7	9 11	12 3	15 8	13 2	15 3
1904 ...	18 0	14 11	9 11	12 3	15 7	13 2	15 4
1905 ...	18 6	15 0	10 1	13 8	14 5	13 3	15 8
1906 ...	18 7	15 3	10 3	14 10	14 0	13 5	15 11
1907 ...	19 0	15 8	11 3	15 10	13 4	13 10	16 4
1908 ...	19 3	16 2	12 0	17 0	13 3	14 2	16 10
1909 ...	19 10	16 5	12 11	18 4	13 0	14 7	17 5
1910 ...	20 7	17 11	13 8	19 10	13 7	15 2	18 5
1911 ...	22 7	18 11	15 0	21 8	15 10	15 8	20 0*
1912 ...	24 6	19 10	15 8	22 8	17 2	16 2	21 3
1912 (1st quarter)†	23 1	19 3	15 8	22 9	16 7	15 10	20 6
1912 (4th „)‡	25 3	20 5	15 8	22 4	17 10	16 6	21 9
1913 (1st „)†	25 4	20 10	16 5	22 5	17 10	17 7	22 0

\* Basis of Table. † January to March. ‡ Oct to December.

7. **Cost of Living in Northern Territory, 1913.**—Returns have been received for the month of January, 1913, in regard to retail prices in Darwin. No particulars as to house rents are, however, yet available. The retail prices, which are shewn in detail in Appendix II. to Report No. 2, give the following results compared with average prices in the other thirty towns in the Commonwealth for which data are collected :—

**NORTHERN TERRITORY.—COST OF LIVING COMPARED WITH AVERAGE FOR THIRTY OTHER TOWNS IN COMMONWEALTH, JANUARY, 1913.**

Particulars.	I. Groceries.	II. Dairy Produce.	III. Meat.	IV. Food and Groceries.*
Average 30 Towns ...	1,000	1,000	1,000	1,000
Darwin ...	1,595	1,302	1,284	1,404

\* Weighted average of Groups I., II., and III. combined.

These results shew that in January, 1913, cost of food and groceries in Darwin was over 40 per cent. more expensive than the average for the other towns of the Commonwealth for which returns are collected.

8. **Seasonal Fluctuations in Cost of Living and Tables of Prices and House Rents, 1912.**—Particulars of monthly fluctuations in cost of living during the year 1912 are given in Report No. 2 (pages 57-8), while the actual prices and house rents upon which the index-numbers are based are given in Appendixes to Reports Nos. 1 and 2.

## § 7. Wholesale Prices.

1. **General.**—The results of an investigation into wholesale prices in Melbourne were given in some detail in Report No. 1, from 1871 to the end of September, 1912. In Report No. 2 summarised results were included for the whole of the latter year.

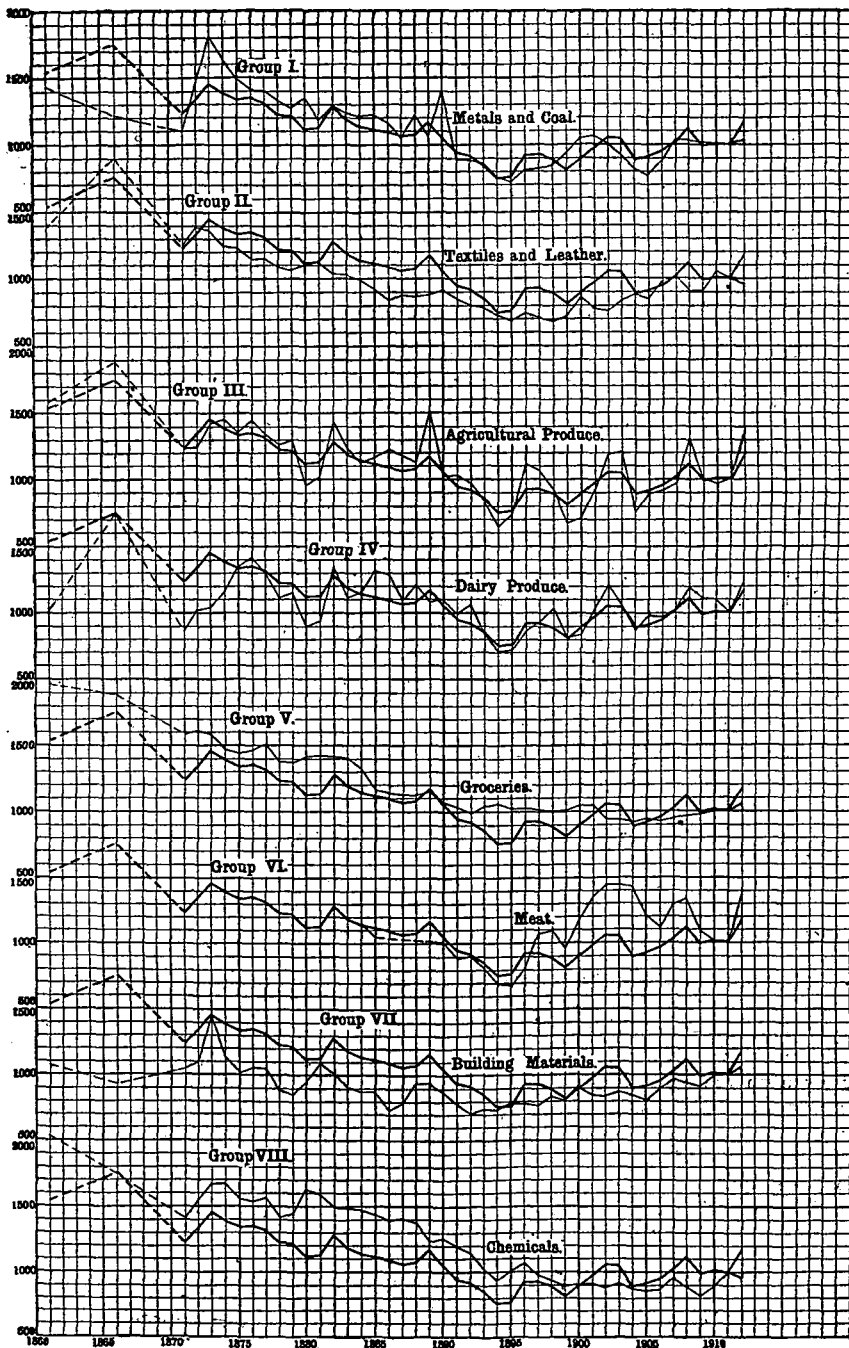
The index-numbers up to the year 1911 are based on the prices of eighty commodities, but since that year the number has been increased to ninety-two.\* The methods followed for the computation of the wholesale price index-numbers are the same as those adopted in regard to retail prices. The commodities included the units of measurement for which the prices are taken, and the mass-units, indicating the relative extent to which each commodity, in the units of measurement specified, is used or consumed are shewn in a tabular statement in Report No. 2 (page 61).

2. **Index-Numbers and Graphs.**—Index-numbers have been computed for each group of commodities, as well as for all groups together. The index-numbers for the several groups, and for all groups together, are shewn in the following table.

(i.) *Table of Index-numbers.*—The index-numbers have in each case been computed with the prices in the year 1911 as base; that is to say, *they shew the amount which would have had to be expended in each of the years specified in order to purchase what would have cost £1000 in 1911, distributed in purchasing the relative quantities (indicated by the mass-units) of the several commodities included in each group, and in all groups respectively.* Thus, in the last column it may be seen that the cost of the relative quantities of the various commodities was 1229 in 1871, and 974 in 1901, as compared with 1000 in 1911, and 1170 in 1912. In other words, prices were lower in 1911 than in either 1871 or 1912, and the purchasing power of money in 1911 was, accordingly, greater. Again, prices were higher in 1911 than in 1901, and the purchasing power of money in the former year was therefore less.

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

## MELBOURNE WHOLESALE PRICE INDEX-NUMBERS, 1861 TO 1912.



EXPLANATORY NOTE.—The scale for each graph is shown by the figures on the left of the diagram, the line marked 1000 showing 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 indicating in each case the index-numbers for the separate group.

**MELBOURNE WHOLESALE PRICES, INDEX-NUMBERS, 1861 to 1912, COMPUTED TO  
YEAR 1911 AS BASE.**

YEAR.	I. Metals and Coal.	II. Jute, Leather, &c.	III. Agri- cultural Produce, &c.	IV. Dairy Produce.	V. Gro- ceries.	VI. Meat.	VII. Building Ma- terials.	VIII. Chem- icals.	All com- modities together
1861 ...	1,438	1,381	1,583	1,008	1,963	...	1,070	2,030	1,538
1871 ...	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 ...	1,061	774	928	1,029	1,048	1,345	841	917	974
1902 ...	1,007	756	1,193	1,215	945	1,447	837	881	1,051
1903 ...	923	834	1,209	1,059	936	1,443	875	921	1,049
1904 ...	821	885	754	876	916	1,427	845	875	890
1905 ...	772	850	894	980	942	1,209	801	859	810
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 ...	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

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 preceding page. The heavy line, repeated on each graph, represents the index-numbers for the weighted average for all groups, and is shewn so that comparison may be made between the price levels for all commodities and those for the commodities comprised in each group separately. The index-numbers for the individual groups are represented by the light lines. The broken lines at the commencement of each graph shew the index-numbers for the separate years, 1861 and 1866, the continuous records commencing with the year 1871. The actual index-numbers for the whole period were given in Report No. 1.

3. *Seasonal Fluctuations and Tables of Prices.*—Information as to seasonal fluctuations in wholesale prices was given in Report No. 2 (page 64) and tables of prices of each commodity were given in Appendixes to Reports Nos. 1 and 2.

## § 8. Nominal and Effective Wages.

1. *General.*—In order to obtain an accurate measure of the progress of wage-earners, regard must be had to the purchasing power of wages, and the index-numbers based merely upon the records of *rates* of wages must consequently be subjected to some correction, inasmuch as they take no account of (a) variations in cost of living, and (b) loss through the extent of unemployment. The data furnished in this Report in respect, firstly, to cost of living index-numbers, and, secondly, relative percentages unemployed, afford the material by means of which the necessary adjustments can be effected with considerable precision. The results will show the variations in *effective* wages or in what may be called the "standard of comfort."\*

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\* This expression must not be confused with "standard of living." A change in the standard of living necessarily involves a change in regimen (see 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 "standard of living."

2. **Variations in Effective Wages and Standard of Comfort, 1891 to 1912.**—The following table contains the gist of the whole matter. The first correction to be made is that for the relative time lost through unemployment. Column I. shews the rate of wages index-numbers (see § IV. hereof), and Column II. the relative percentages unemployed (see § III.). 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 cost of living 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.

A comparison between the figures in Columns I. and VI. (see graphs A and C below) shews the relation between the absolute rates of *wages* and the purchasing efficiency of these rates. The figures in Column VII (see graph B on next page) shew variations in *effective wages* after allowing not only for increased cost of living, but also for the relative extent of unemployment.

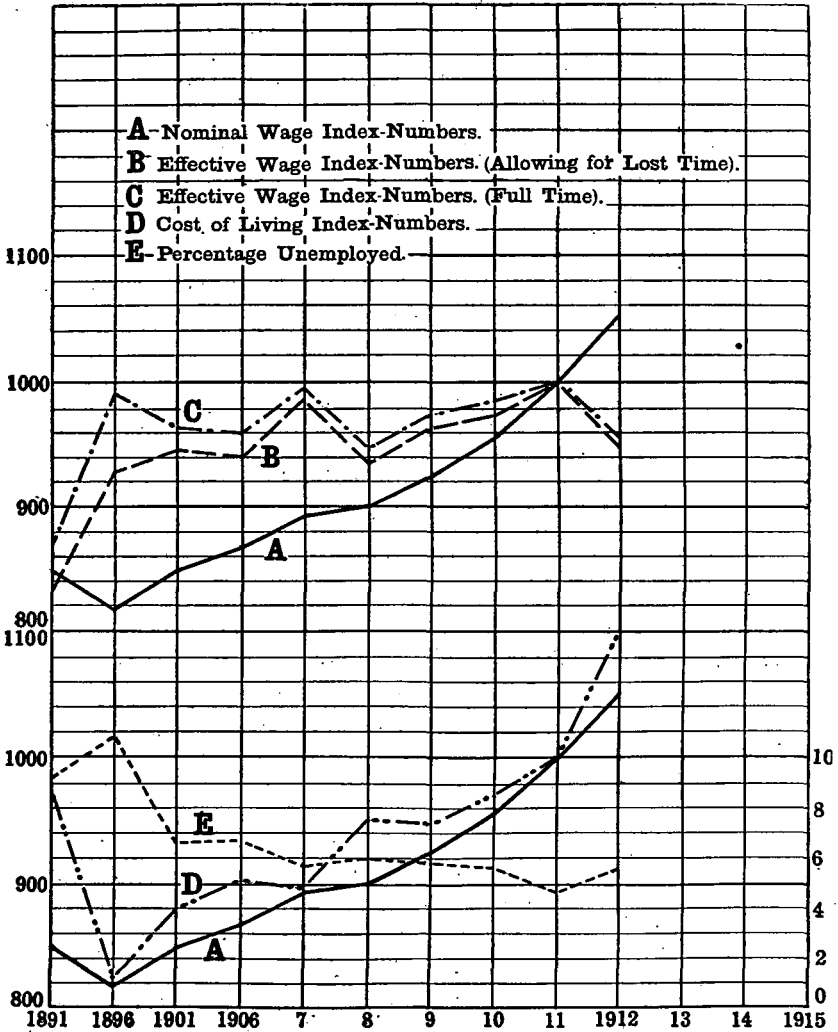
**UNEMPLOYMENT, COST OF LIVING AND NOMINAL AND EFFECTIVE WAGE INDEX-NUMBERS, 1891 to 1912.**

Year.	I. Nominal Wages Index- Numbers.	II. Percentage Unem- ployed.	Rate of Wages Index- Numbers, allowing for Lost Time.		V. Cost of Living Index- Numbers.	Effective Wages Index-Numbers.	
			III. Actual.	IV. Recomputed. (1911=1,000.)		VI. Full Work.	VII. Allowing for Lost Time.
1891 ... ..	848	9.29	770	808	973*	872	830
1896 ... ..	816	10.81	728	764	823*	991	928
1901 ... ..	848	6.59	793	832	880	964	945
1906 ... ..	866	6.67	808	848	902	960	940
1907 ... ..	893	5.74	842	884	897	996	986
1908 ... ..	900	5.98	846	888	951	946	934
1909 ... ..	923	5.79	870	913	948	974	963
1910 ... ..	955	5.63	901	945	970	985	974
1911 ... ..	1,000	4.67	953	1,000	1,000	1,000	1,000
1912 ... ..	1,051	5.55	993	1,042	1,101	955	946

\* Based on Sydney prices only; exclusive of house rent.

The above figures are shewn on the diagram on page 1152. It may be seen that the nominal wage index-number has steadily increased (except in 1896), and that the increase has generally been at a somewhat greater rate (except in the year 1912) than the increase in the cost of living. The effective wage index-numbers (both "Full Work" and "Allowing for Lost Time") do not, on the other hand, shew any general increase in more recent years, but fluctuate between a range which reached its minimum in 1908, and its maximum in 1911. The figures prior to the year 1906 are available only at quinquennial periods, and it may be observed that the *effective wages* in 1891 were relatively very low owing to the large percentage of unemployment and the high cost of living. In 1896, though the percentage unemployed increased, the cost of living decreased to a greater extent, with the result that effective wages in that year were higher than in 1891. By 1901 the percentage unemployed had decreased considerably, with a consequent increase in effective wages. In 1907 there was again a large decrease in unemployment, causing the "peak" in the effective wage index-number for that year. The rise in the cost of living in 1908, which was a drought year, caused a considerable fall in effective wages. From that year, however, until the year 1911, the effective wage index-number steadily increased from 934 to 1000, but this increase was more than counterbalanced by the fall in 1912, which was due to the large increase in cost of living and the smaller increase in unemployment.

UNEMPLOYMENT, COST OF LIVING AND NOMINAL AND EFFECTIVE WAGE  
INDEX-NUMBERS, 1891 to 1912.



EXPLANATORY NOTE.—From 1891 to 1906 figures are available at quinquennial periods only; each space in the horizontal scale up to the year 1906 represents, therefore, a period of five years. After that year each such space represents a single year. The two vertical scales on the left—each from 800 to 1100—represent the scales for the index-numbers shown in graphs A, B, and C, and A and D respectively, while the scale at the right of the diagram—from 0 to 10—represents the percentage unemployed shown in graph E.

**3. Relative Standard of Comfort and Effective Wage Index-Numbers in Each State, 1912.**—The figures given in the preceding paragraph furnish an indication of the progress of effective wages in the whole Commonwealth since 1891, and an analogous examination of the relative "standard of comfort" as between the several States may now be made. This is shewn in the following table, in the first line of which are given the wages index-numbers. These are subject to the qualifications referred to on page 1139 hereinbefore. The second line shews the "cost of living" index-numbers, the third line the percentage unemployed, and the last two lines the "effective wage" index-numbers firstly, on the assumption of full work, and, secondly, allowing for lost time. The figures in these two lines are computed in the same manner as the similar results were obtained in the table in the preceding paragraph.

**RELATIVE STANDARD OF COMFORT AND EFFECTIVE WAGE INDEX-NUMBERS IN EACH STATE, 1912.**

Particulars.	N.S.W.	Vic.	Q'land.	S.A.	W.A.	Tas.	C'wth.
Nominal Wage Index-Numbers ...	998	982	984	998	1,158	876	<b>1,000</b>
Cost of Living Index-Numbers ...	1,056	949	900	1,033	1,094	929	<b>1,000</b>
Percentage Unemployed ...	4.95	6.71	4.62	5.07	5.82	3.37	<b>5.55</b>
Effective Wage (a) ...	945	1,035	1,093	966	1,058	943	<b>1,000</b>
Index-Numbers (b) ...	952	1,022	1,105	951	1,057	966	<b>1,000</b>

(a) Full work.      (b) Allowing for lost time.

The figures given in the above table in regard to nominal wage index-numbers and percentage unemployed are subject to the qualifications expressed on pages 1139 and 1127 respectively. The results shew that effective wages in 1912, allowing for lost time, were highest in Queensland, followed in the order named by Western Australia, Victoria, and Tasmania, with New South Wales and South Australia (practically equal) coming last.

**4. Relative Productive Activity and Effective Wages, 1871 to 1911.**—The preceding tables refer to the matter of variations in nominal wages in regard to fluctuations in cost of living and extent of unemployment. Another important matter in any investigation into increases in rates of wages is the question of increase in relative output or production per head of population.

Figures are published annually showing the estimated *value* of production from industries in the Commonwealth, but these figures do not reveal whether there has been any increase in the *quantity* of productive activity, since the price-level from year to year is itself a factor in the determination of the values. Before, therefore, any estimate of the increase or decrease in the relative productive activity, that is, in the relative quantity of output or production per head of population, can be formed, the price element must be eliminated. This is done in the following table, in which Column I. shews the estimated *value* of production—(a) total, and (b) per head of mean population. In Column II. the estimated value of production per head of population is shewn in the form of index-numbers with the year 1911 as base, that is to say, the production per head in 1911 is made equal to 1000, and the values for the other years computed accordingly. In Column III. Melbourne wholesale price index-numbers are given; it is assumed that these index-numbers reflect, with substantial accuracy, variations in wholesale prices in the Commonwealth as a whole. The figures in Column IV. are obtained by dividing the figures for each year in Column II. by the corresponding figures in Column III. They shew the estimated relative productive activity per head of population, taking the year 1911 as the basic or standard year, the fluctuations due to variations in prices having been eliminated. In Column V. the effective wage index-numbers shewn in the graph on page 1152, (a) for full work, and (b) allowing for lost time, are included for comparative purposes.

## ESTIMATED RELATIVE PRODUCTIVE ACTIVITY IN COMMONWEALTH, 1891 to 1911.

Year.	I. Estimated Value of Production.		II. Estimated Value of Production per Head Index- Number (1911=1000).	III. Wholesale Price- Index- Number (1911=1000).	IV. Estimated Relative Productive Activity Index- Number (1911=1000).	V. Effective Wages Index- Numbers (1911 = 1000).	
	(a) Total.	(b) Per Head of Popula- tion.				(a) Full Time.	(b) Allowing for Lost Time.
	£000	£					
1871 ...	46,700	27.89	661	1,233	536	...	...
1881 ...	71,116	31.34	746	1,124	664	...	...
1891 ...	96,087	30.06	715	945	757	872	834
1901 ...	114,585	30.23	719	974	738	964	945
1906 ...	147,043	36.21	862	948	909	960	940
1907 ...	167,446	40.61	966	1,021	946	996	986
1908 ...	164,957	39.33	936	1,115	839	946	934
1909 ...	174,503	40.82	971	993	978	974	963
1910 ...	187,734	43.92	1,045	1,003	1,042	985	974
1911 ...	188,745	42.03	1,000	1,000	1,000	1,000	1,000
1912 ...	*	*	*	1,170	*	955	946

\* Not available.

These figures shew that the estimated relative productivity per head of population increased by no less than 86 per cent. from 1871 to 1911, and by nearly 33 per cent. from 1891 to 1911. Reference to the subjoined graph will shew that the increase was not uniform during the whole of the years specified, slight decreases occurring in 1901 and 1911, and a heavy fall in 1908, which was a year of severe drought. It may also be seen that the increase in productive activity per head has relatively been far greater than the increase in nominal wages and still greater than the increase in effective wages.

The index-numbers given in the above table are, of course, reversible. That is to say, if it be desired to take any year, other than the year 1911, as base, the necessary index-numbers can be obtained by dividing throughout by the index-number for the year which is to be taken as base, and multiplying the results by 1000. For example, if it be desired to compare the years 1906 to 1911, inclusive, with the year 1901 as base, the relative productive activity index-numbers must be multiplied throughout by  $\frac{1000}{719}$ , and the effective wage index-numbers (allowing for unemployment) by  $\frac{1000}{964}$ . The results are shewn in the following table, in which cost of living index-numbers (weighted average for six capital towns) are also included:—

RELATIVE PRODUCTIVE ACTIVITY, EFFECTIVE WAGES AND COST OF LIVING  
IN AUSTRALIA, 1901 to 1912.

Particulars.	1901.	1906.	1907.	1908.	1909.	1910.	1911.	1912.
Relative Productive Activity	1,000	1,232	1,282	1,137	1,325	1,412	1,355	†
Nominal Rates of Wages ...	1,000	1,021	1,053	1,061	1,088	1,126	1,179	1,240
Effective Wages* ...	1,000	995	1,043	988	1,019	1,031	1,058	1,001
Cost of Living ...	1,000	1,025	1,019	1,031	1,075	1,107	1,136	1,251

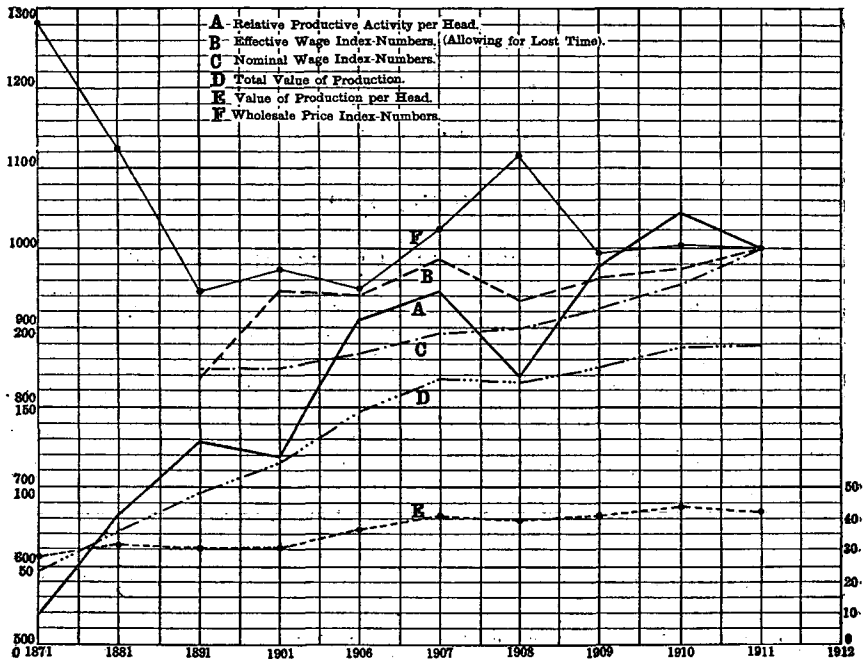
\* Allowing for lost time through unemployment.

† Not available.

While it may be dangerous, in view of the fluctuating nature of some of the figures, to compare individual years without due reference to other years, it may be seen that from 1901 to 1911 the relative productive activity increased from 1000 to 1355, or 35½ per cent., while nominal wages increased nearly 18 per cent. (or about one-half the increase in productive activity), effective wages increased 5.8 per cent., and cost of living 13.6 per cent. It should be remembered, however, that in the following year there was a heavy decline (see p. 1151) in the effective wage index-number.



RELATIVE PRODUCTIVE ACTIVITY AND NOMINAL AND EFFECTIVE WAGES  
IN COMMONWEALTH, 1871 to 1911.



EXPLANATORY NOTE.—From 1871 to 1901 figures are available only at decennial periods; every double space on the horizontal scale up to 1901 represents, therefore, a period of 10 years. The double space from 1901 to 1906 represents a period of five years, while from that year onward each double space represents a single year. The upper figures on the left—from 500 to 1300—represent the scale for the index-numbers shown in graphs A, B, C and F; the lower figures on the left from 0 to 200—represent in millions of £ sterling (£000,000) the scale for graph D, shewing the total value of production; while the figures on the right—from 0 to 50—represent in £ sterling the scale for the value of production per head of population shown in graph E.