

## SECTION XVI.—INTERNATIONAL LABOUR STATISTICS.

1. **General.**—The particulars given in this section embody the most recent information available for various countries in regard to—(i) Trade Unionism, (ii.) Unemployment, (iii.) Price-indexes, and (iv.) Industrial Disputes. As explained in the following paragraphs, any comparisons which can be made between the various countries are subject to certain limitations, inasmuch as there is ordinarily a considerable lack of uniformity in the methods adopted for collection, and in the field covered by the returns. It is now becoming more widely recognised that in certain questions of this nature—such for example as variations in prices and unemployment—underlying causes and events in one country are reflected in other countries, and that these questions can be studied adequately only on an international basis. Hence it follows that a greater degree of co-ordination in these matters is necessary before any wholly satisfactory examination can be made as to industrial activity and economic conditions, either relative or absolute. In this connection the efforts of the International Unemployment Association and the proposals for an International Commission to investigate the question of prices and cost of living may be mentioned.

In addition, tables are shown giving index-numbers in July 1916 of (i.) Wholesale Prices; (ii.) Retail Prices, and (iii.) Prices of various commodities in different countries, taking the prices in July 1914 as base (= 1000).

2. **Trade Unions.**—In the absence of any comprehensive definition applicable to all countries as to what constitutes a trade union, the principle has been followed, as far as possible, of including in the subjoined table all such associations of work-people as correspond to trade unions in the Australian meaning of the term. It should, however, be understood that the types of organisations included in the table differ considerably in various countries. Thus the Austrian unions include a large number of associations conducted primarily for educational purposes, while the German and Belgian unions comprise bodies organised in close connection with the Catholic Church, though performing trade union functions as well. During recent years a considerable impetus has been given to the trade union movement in Europe by the holding of international congresses and the establishment of a permanent International Secretariat at Berlin. Further

information as to trade-unionism in certain European countries and as to the laws of association of these bodies may be found in the Fourth Abstract of Foreign Labour Statistics published by the Board of Trade, London (Cd. 5415), 1911.

The following table shews the membership of trade unions in various countries for the year 1914. The number of trade unionists per 1000 inhabitants in each country is also shewn.

Trade Unions.—Total Membership and Number of Members per 1000 Inhabitants, 1914.

Country.	Total Membership in thousands.	Population in thousands.	No. of Members per 1000 Inhabitants.	Country.	Total Membership in thousands.	Population in thousands.	No. of Members per 1000 Inhabitants.
Australia† ..	(000) 523	(000) 4,941	106	Holland ..	(000) 228	(000) 6,114	37
Austria (including Croatia & Slavonia) ..	*704	28,879	24	Hungary ..	\$112	21,135	5
Belgium ..	\$214	7,571	28	Italy ..	\$972	35,238	28
Bosnia and Herzegovina	†6	1,962	3	New Zealand ..	74	1,090	68
Bulgaria ..	†29	4,466	7	Norway ..	\$61	2,392	26
Canada ..	166	7,758	21	Roumania ..	*10	7,230	1
Denmark ..	156	2,860	54	Servia ..	*8	4,548	2
Finland ..	\$28	3,140	9	Spain ..	†80	19,550	4
France ..	\$1,499	39,660	38	Sweden ..	*123	5,604	22
Germany ..	\$4,841	65,426	74	Switzerland ..	*127	3,781	34
				United K'gdom	3,960	46,036	86
				United States	\$2,605	95,411	27
				Total ..	16,536	414,992	40

\* 1912 Figures. † 1911 Figures. ‡ At the end of the year 1916 the total membership was 546,556. See page 339 hereinbefore. § 1913 Figures.

From the foregoing table it will be seen that as regards *actual* numbers of trade unionists Germany comes first, followed in the order named by the United Kingdom, the United States, and France. As regards *relative* numbers (per 1000 inhabitants) Australia has by far the largest proportion, followed by the United Kingdom, Germany, New Zealand, Denmark, and France.

The figures for all Trade Unions in Germany for 1914 are not available, but the Social Democratic Unions, which numbered 2,530,390 members in 1912, and 2,548,763 in 1913, had a membership of 2,483,661 during the first half of 1914, and of 1,645,181 during the second half of that year.

3. **Unemployment.**—While trade union unemployed percentages are collected in a number of countries, owing to the lack of uniformity in regard to methods of collection and presentation, the results cannot

be *directly* used for the purpose of comparing the state of employment in different countries. Some of the statistical objections to such comparisons may be summarised as follows\* :—

(i.) The disproportionate manner in which the various trades are represented. For example, in some countries specially large representation is given to trades which are characterised by violent fluctuations in employment.

(ii.) In some countries the returns are, and in others they are not, confined to unions paying unemployment benefit.

(iii.) Where the returns are so confined, they are not free from the liability to understate the number unemployed, by the exclusion of those who have either not qualified for, or who have run out of, benefit.

(iv.) The percentages of unemployment are materially affected by the age distribution of persons included.

Notwithstanding these objections to *direct* international comparisons of unemployment, it is stated in the report referred to above that "... the movements of each set of figures over a period of time furnish a fairly good indication of the fluctuation of employment in each country, any imperfections in the records being of a more or less constant character."

In order to shew the relative increase or decrease in unemployment from year to year in various countries the following table has been prepared. It must, however, be borne in mind that, for the reasons already indicated, direct comparisons as to actual percentages unemployed at any given time cannot be made between the various countries.

**Percentage of Numbers of Trade Unionists Returned as Unemployed, 1908 to 1915.**

(Results not comparable for various Countries. See above.)

Country.	1908.	1909.	1910.	1911.	1912.	1913.	1914.	1915.
Australia ..	6.0	5.8	5.6	4.7	5.5	5.3	11.0	6.8
Austria .. ..	§	§	§	§	§	§	8.1	4.4
Belgium .. ..	5.9	3.4	2.0	1.9	1.8	2.7	§	§
Denmark .. ..	11.0	13.3	11.3	9.2	7.6	7.5	9.9	7.7
France .. ..	9.6	8.1	6.5	6.2	6.1	5.2	§	§
Germany† .. .	2.9	2.8	1.9	1.9	2.0	2.9	7.2	3.2
Great Britain†	7.8	7.7	4.7	3.0	3.2	2.1	3.3	1.1
Holland .. ..	§	§	§	2.5	4.0	5.0	13.8	12.0
Norway .. ..	3.7	5.0	2.9	1.9	1.3	1.6	2.0	2.5
Sweden .. ..	§	§	§	§	5.4	4.5	6.7	7.8
U.S.A., N. York	28.0	14.9	13.6	18.7	15.2	20.9	27.5	§
U.S.A. Massachusetts	12.1	5.6	5.5	5.4	4.5	5.8	9.9	8.0

† Returns relate solely to unions paying unemployed benefit. § Not available.

NOTE.—Although these percentages are not directly comparable (for reasons already indicated), as between the several countries, the variations are informative.

\* See "Fourth Abstract of Foreign Labour Statistics," Board of Trade, London, (Cd. 5415), 1911.

The above figures disclose the fact that there was a general similarity between the trend of unemployment in the various countries. In 1908-9, following on the financial crisis in America, unemployment was higher in all countries than during any period under review except 1914. The percentage of unemployment was lower in 1915 than in 1914 in every country for which figures are available, except Norway and Sweden.

**4. Industrial Disputes.**—The statistics of trade disputes given in this paragraph are summarised from reports issued by Government Labour Bureaux, but there is considerable difference in the methods adopted for the collection of these statistics. On the Continent of Europe they embrace all disputes, irrespective of their extent, except in the case of Austria, where disputes affecting fewer than ten persons are disregarded. In Canada all disputes affecting less than six employees or lasting less than twenty-four hours are excluded. In Massachusetts strikes lasting less than one day are omitted. In the United Kingdom, however, the method has been adopted of excluding disputes involving fewer than ten persons, or lasting less than one day, unless their aggregate duration exceeds 100 working days. In Australia the method is the same as in the United Kingdom, with the exception that all disputes involving an aggregate loss of 10 days or more are included. It has been found that the exclusion of such disputes does not materially affect the results shewing the total number of working days and the total amount of wages lost, while their inclusion would greatly increase the labour involved in the collection of the statistics. Similarly, there is a great diversity in the methods adopted in the various countries for determining the number of persons affected by a dispute. It is obvious that to the extent to which that diversity prevails the estimates of the aggregate amount of time lost will be affected. The different methods, both of collecting and presenting the statistics of disputes, make it impossible to draw safe conclusions as to the frequency of industrial disputes in different countries. The fact most essential to any useful international comparison of statistics of trade disputes is the aggregate number of working days lost, but, unfortunately, on this point the information is very incomplete. The following table shews, however, the number of industrial disputes and the number of persons returned as being affected thereby in different countries for the years 1908 to 1915. The collection of these statistics for the Commonwealth was only begun as from the 1st January, 1913.

## Industrial Disputes in various Countries, 1908 to 1915.

(NOTE—For reasons indicated above, direct comparisons between the several Countries cannot be made.)

Country.	1908.	1909.	1910.	1911.	1912.	1913.	1914.	1915.
Number of Disputes.								
Australia ..	\$	\$	\$	\$	\$	208	337	358
Argentine ..	118	138	298	102	99	95	\$	\$
Austria ..	756	609	676	728	801	461	278	\$
Belgium ..	108	123	110	162	206	167	\$	\$
Canada ..	66	68	81	98	150	113	44	43
Denmark ..	122	65	71	52	64	74	44	\$
Finland ..	128	51	54	51	59	70	37	\$
France ..	1,073	1,025	1,502	1,474	1,120	1,073	672	98
Germany ..	1,524	1,652	3,228	2,798	2,834	2,464	1,213	141
United Kingdom ..	399	436	531	903	857	1,497	999	674
Holland ..	135	189	146	217	283	427	271	268
Italy ..	1,796	1,095	1,109	1,107	914	810	740	506
Spain ..	\$	\$	\$	\$	311	333	262	226
Sweden ..	302	138	76	98	116	119	115	80
New York* ..	160	176	250	215	184	268	124	\$
Massachusetts	98	183	242	222	294	\$	\$	\$

## Number of Workers Affected (,000 omitted).

Australia	\$	\$	\$	\$	\$	50	71	81
Argentine ..	11	5	19	28	9	24	\$	\$
Austria ..	88	80	75	128	145	62	40	\$
Belgium ..	17	15	27	57	77	29	\$	\$
Canada ..	26	18	20	20	41	39	9	9
Denmark ..	8	2	2	29	4	9	3	\$
Finland ..	11	4	4	6	11	6	6	\$
France ..	99	167	281	231	268	220	161	9
Germany ..	112	120	370	356	492	322	95	2
United Kingdom ..	296	301	515	962	1,463	689	449	446
Holland ..	7	6	4	20	22	30	15	13
Italy ..	398	201	196	253	144	385	145	115
Spain ..	\$	\$	\$	\$	23	41	80	56
Sweden ..	40	302	4	21	10	10	14	5
New York* ..	20	53	190	84	57	304	61	\$
Massachusetts	23	22	27	17	95	\$	\$	\$

\* Year ending Sept. 30. § Not available.

5. Price Index - Numbers in various Countries.—(i.) Wholesale Prices.—In several of the more important countries of the world, index-numbers have been computed on some system for a number of years. It is, therefore, possible to make some comparisons between the course of prices in Australia and other countries, but such comparisons are subject, however, to certain qualifications, inasmuch as there is no uniformity either in the list of commodities included or in the methods adopted for the collection of the data. Moreover, the methods and technique adopted in the computation of the index-numbers in some of the other countries is ordinarily far from satisfactory, and the results obtained are of limited accuracy, and are not reversible. This lack of reversibility becomes of special importance when it is desired to compare the

various index-numbers by taking a common period as the base period throughout, as in the present case. For the index-numbers in different countries being originally computed with various periods or years as base, their reduction to a common period or year as base does not give the same results as would have been obtained had they been originally computed with the common period as base.

In spite of the foregoing objections, the index-numbers computed for the various countries may, for the most part, be taken as *roughly* indicating the general trend of prices and the general relative price levels at different periods. At any point they may really be subject to appreciable correction compared with the results which would have been obtained if deduced from properly weighted data.†

In Labour Reports Nos. 2 and 6, index-numbers of Wholesale Prices in France, Germany, and Italy were given for the years 1901 to 1913 for the former country, and for the years 1901 to 1912 for the two latter countries. These index-numbers are now omitted, for the reason that in France the publication of the index-numbers has ceased since the outbreak of the war, while in Germany and Italy, the index-numbers were computed for the purposes of special investigations which have not been continued.

In the following table prices index-numbers are shown for the United Kingdom, Holland, the United States, Canada, and Australia. The index-numbers have in each case been computed with the year 1901 as base (= 1000). In making any comparisons between the results it must, of course, be understood that the figures do not in any way show the relative prices in different countries, but that they merely exhibit the fluctuations in price-level, taking the prices in 1901 as base (= 1000) in each country separately.

**Index-Numbers of Wholesale Prices in Australia and other Countries, 1901 to 1916, with Prices in 1901 as Base (= 1000).**

Particulars.	United Kingdom.			Holland.	United States.	Canada.	Australia.
	Board of Trade.	Economist.	Sauerbeck and Statist.	Contract Prices.	Bureau of Labour.	Department of Labour.	Bureau of Census and Statistics.
No. of Items.	45	22	39	9	236	271	92
1901 .. .. .	1,000	1,000	1,000	1,000	1,000	1,000	1,000
1902 .. .. .	997	918	985	985	1,075	1,019	1,079
1903 .. .. .	1,002	942	985	972	1,075	1,032	1,077
1904 .. .. .	1,016	1,083	1,000	1,071	1,087	1,040	914
1905 .. .. .	1,009	1,005	1,029	1,058	1,075	1,063	934
1906 .. .. .	1,042	1,102	1,099	1,073	1,112	1,121	978
1907 .. .. .	1,096	1,175	1,143	1,034	1,187	1,179	1,048
1908 .. .. .	1,064	1,086	1,042	1,122	1,150	1,129	1,145
1909 .. .. .	1,076	1,033	1,057	1,114	1,225	1,132	1,020
1910 .. .. .	1,126	1,124	1,114	1,126	1,262	1,161	1,080
1911 .. .. .	1,131	1,182	1,143	1,176	1,200	1,190	1,027
1912 .. .. .	1,188	1,229	1,214	1,173	1,275	1,256	1,203
1913 .. .. .	1,205	1,285	1,214	1,160	1,262	1,267	1,117
1914 .. .. .	1,212	1,274	1,229	1,109	1,250	1,271	1,180
1915 .. .. .	1,488	1,589	1,543	1,412	*	1,389	1,047
1916 .. .. .	1,928	2,072	1,957	*	*	1,705	1,544

\* Not available.

† It was not practicable to attempt a computation on fresh lines of the whole of the data

Since 1901, there has been a marked increase in prices in all the countries for which index-numbers are available. Of those countries for which particulars are available for 1916, the increase compared with 1901 is greatest in the United Kingdom (98.6) per cent., followed by Canada (70.5 per cent.), and Australia (54.4 per cent.) In the United States and Holland, the index-numbers for the latest year available—1914 or 1915 respectively, shew increases on those for 1911.

In the following table the index-numbers for the month of July in the years 1914 (the month previous to the outbreak of war) and 1916 are given for the United Kingdom, Canada, the United States, and Australia, the prices in July 1914 being taken as base (= 1000).

**Index-Numbers of Wholesale Prices in Australia and other Countries, July 1914 and July 1916, with Prices in July 1914, as Base (=1,000).**

Country.	Source of Information.	No. of Commodities.	INDEX-NUMBERS.	
			July 1914.	July 1916.
United Kingdom ..	Economist.	44	1,000	1,639
	Statist.	45	1,000	1,584
Canada .. ..	Department of Labour.	271	1,000	1,328
United States ..	Bureau of Labour.	26	1,000	1,110
Australia .. ..	Bureau of Census and Statistics.	92	1,000	1,332

It will be seen that the largest increase in wholesale prices occurred in the United Kingdom, the rise being nearly double that in Australia and Canada, while in the United States the increase was comparatively unimportant, being only 11 per cent.

(ii.) *Retail Prices.*—The rise in the general level of prices and in cost of living in recent years appears to have been world-wide. What has been said with regard to uniformity and methods adopted in the computation of wholesale price index-numbers applies with equal weight to retail price index-numbers in other countries. In several of the more important countries of the world index-numbers have been computed to shew the variation in the retail prices of various articles of food. Owing to the war, retail price index-numbers for Austria, Belgium, France, and Germany are not available since 1912, and those countries are therefore omitted, but on the other hand, retail price index-numbers for Canada are included. The index-numbers are shewn in the following table:

**Index-Numbers of Retail Prices in Australia and other Countries, 1901 to 1916, with  
Prices in 1901 as Base (= 1000).**

Particulars.	United Kingdom.	Canada†	Holland	United States.	Australia.
Index No.	Board of Trade.	Department of Labour.	Dutch Bureau of Statistics.	Bureau of Labour.	Bureau of Census and Statistics.
No. of Items.	45	29	29	15	46
1901 .. .. .	1,000	*	1,000	1,000	1,000
1902 .. .. .	1,005	*	1,000	1,056	1,036
1903 .. .. .	1,024	*	1,009	1,057	1,048
1904 .. .. .	1,020	*	1,020	1,071	951
1905 .. .. .	1,024	*	1,000	1,073	1,014
1906 .. .. .	1,015	*	1,009	1,109	1,008
1907 .. .. .	1,046	*	1,041	1,160	983
1908 .. .. .	1,070	*	1,030	1,199	1,061
1909 .. .. .	1,071	*	1,091	1,206	1,036
1910 .. .. .	1,069	975	1,141	1,328	1,034
1911 .. .. .	1,089	1,000	1,161	1,318	1,029
1912 .. .. .	1,141	1,029	1,202	1,421	1,162
1913 .. .. .	1,143	1,029	1,151	1,506	1,127
1914 .. .. .	1,188	1,084	1,181	1,537	1,177
1915 .. .. .	1,480	1,103	1,423	*	1,452
1916 .. .. .	1,841	1,478	*	*	1,504

\* Not available. † Prices in 1911 as base (= 1000).

The rise in retail prices was most marked in 1915; in the United Kingdom prices were 27 per cent. higher in 1915 than in 1914, in Australia 23 per cent., in Canada 2 per cent., and in Holland 21 per cent.

In the following table the retail index-numbers for the months of July 1914 and July 1916 in various countries are given, taking the prices in July 1914 as base (= 1000). These figures relate to food-stuffs only, and are not comparable, as the list of commodities varies in each country. In nearly every case the index-numbers are based on weighted averages.

**Index-Numbers of Retail Prices in Australia and other Countries, July, 1914,  
and July, 1916, with Prices in July, 1914, as Base (= 1000).**

Country.	No. of Towns or Cities.	No. of Commodities.	INDEX-NUMBERS:	
			July 1914.	July 1916.
Australia .. .. .	30	46	1,000	1,300
Austria .. .. .	Vienna.	18	1,000	2,490
Canada .. .. .	60	29	1,000	1,140
Denmark .. .. .	Copenhagen.	17	1,000	1,460
Germany .. .. .	Berlin.	19	1,000	2,180
Italy .. .. .	41	7	1,000	1,330
New Zealand .. .. .	25	59	1,000	1,190
*Norway .. .. .	21	33	1,000	1,780
Sweden .. .. .	44	31	1,000	1,390
Switzerland .. .. .	All Co-operative Societies.	31	1,000	1,410
United Kingdom .. .. .	600	21	1,000	1,610
United States .. .. .	45	17	1,000	1,070

\* Unweighted average, including other necessities.



The greatest rises have taken place in Vienna, where prices of food-stuffs were 149 per cent. higher in July 1916 than in July 1914, and in Berlin, where the rise amounted to 118 per cent. The smallest increase, 7 per cent. took place in the United States of America.

The fluctuations in price of various foodstuffs from July 1914 to July 1916 in different countries, are given in the following table. In all cases the price of each commodity in each country in July 1914 is taken as base (= 1000).

**Index Numbers of Retail Prices of various Commodities in different countries in July 1916. The price of each Commodity in July 1914 being taken as Base (=1000).**

COMMODITIES.	INDEX NUMBERS.												
	Australia, 6 Towns.	Austria, Vienna.	Canada, 80 Towns.	Denmark, Copenhagen.	Finland,† Helsingfors.	Germany Berlin.	Holland, 6 Co-op. Stores.	Italy, 41 Towns.	New Zealand 4 Towns.	Norway, 21 Towns.	Sweden, 44 Towns.	Switzerland Co-operative Societies.	United Kingdom.
Flour, Wheaten	1,200	2,791	1,121	1,380	1,681	1,140	1,330	1,350	1,450	1,440	1,230	1,420	1,480
"    Rye	*	*	*	*	1,666	1,470	1,710	*	*	1,070	1,330	*	*
Bread, Wheaten	1,090	*	1,119	1,710	*	1,280	*	1,260	1,130	*	1,180	1,490	1,440
"    Rye	*	1,750	*	1,490	2,381	1,430	*	*	*	*	1,280	1,490	*
Potatoes	1,270	750	1,744	2,500	762	1,750	*	*	1,620	*	970	1,140	2,090
Peas	*	*	*	*	1,362	1,380	1,160	*	*	*	1,800	1,040	*
Beans	*	3,750	*	*	*	2,020	1,430	*	*	*	2,350	2,140	*
Onions	730	5,500	*	*	*	*	*	*	950	*	*	*	*
Milk	1,070	1,581	882	1,110	1,415	1,460	*	1,100	1,000	*	1,270	1,100	1,330
Butter	1,360	2,500	1,189	1,300	1,246	2,030	*	*	1,220	1,310	1,300	1,540	1,320
Cheese	1,210	*	1,215	*	*	*	*	*	*	*	1,600	1,220	1,510
Margarine	*	4,200	*	1,270	*	*	1,130	*	*	1,300	1,490	*	1,170
Eggs	1,150	3,714	1,152	*	1,518	3,290	*	*	1,320	1,570	1,460	1,800	1,450
Lard	*	*	1,097	1,820	1,911	3,770	*	*	*	*	*	1,540	*
Bacon	1,250	3,350	1,125	*	*	3,190	*	1,620	1,300	1,730	1,760	*	1,380
Beef	1,480	4,331	1,057	2,430	1,683	2,980	*	1,430	1,170	2,160	1,760	1,400	1,820
Mutton	1,420	*	1,144	*	1,235	2,790	*	*	1,160	2,050	1,630	1,430	1,850
Veal	*	2,933	1,103	1,250	1,552	2,260	*	*	*	2,200	1,690	1,340	*
Pork	1,270	3,601	1,062	*	*	2,180	*	*	*	1,800	1,760	1,330	*
Tea	1,140	*	1,057	*	*	*	1,060	*	1,110	*	*	1,040	1,500
Coffee	1,090	*	1,020	1,160	1,754	2,580	1,180	*	*	1,050	1,220	1,070	*
Sugar	1,280	*	1,223	1,210	1,624	1,360	1,290	*	1,560	1,870	1,060	1,990	2,580
Rice	1,050	*	1,155	1,220	2,301	5,000	1,260	*	1,330	*	1,310	1,500	*
Petroleum	1,440	*	970	1,110	1,550	*	*	*	1,490	1,590	1,350	1,670	*
Coal	*	*	1,016	*	*	*	*	*	1,170	3,300	2,480	1,160	*
Coke	*	*	*	2,330	*	*	1,630	*	*	2,370	2,040	*	*

\* Not available.

† June, 1916.