

NOTES FOR TABLES ON

C. ORGANIZATION OF LABOUR: TRADE UNIONS AND INDUSTRIAL DISPUTES

PREFACE

Australian union and industrial dispute statistics are widely viewed as being amongst the world's most useful. They are detailed and long-standing. Nevertheless there are few statistics available for the nineteenth century. It was only after federation that the richer statistical base was developed.

For the nineteenth century there are no wholly reliable statistics on union membership and only patchy documentation of certain major industrial disputes. Such quantitative indicators of the nineteenth century growth of unionism and disputes as exist are reported in Waters(1982) Thomas (1962) Coghlan (1918), Sweet (1978) and Parsons (1980).

The Commonwealth Bureau of Census and Statistics made retrospective estimates of union membership for 1891, 1896, 1901 and 1906-1911. These figures are based on often doubtful records and recollections and so are not as reliable as post 1911 data which was from current records. McCarthy (1967) has estimated strike numbers from 1898 to 1907 using newspapers and union records. Only official CBCS/ABS data are reported in this section. There are NSW official data for industrial disputes published in the New South Wales Official Yearbook for years from 1907 to 1913, whereafter they were superceded by the CBCS series.

The NSW data for 1907 to 1913, showing the comparable CBCS estimates for 1913 from the Labour Report are as follows:

Table N2 Strikes in New South Wales 1907-1913

Year	Number of Disputes	Number of workers involved (thousands)	Number of working days lost (thousands)
1907 (a)	41	22.1	205.7
1908	181	43.8	237.4
1909	128	42.6	2017.0
1910	81	14.2	100.8
1911	71	20.3	357.2
1912	110	31.2	96.0
1913	160	42.2	366.8
1913 (b)	134	40.0	488.0

(a) July to December

(b) ABS estimates (see Labour Report)

SOURCES: New South Wales Official Year Book, 1918 and Labour Report No. 5

1. UNION NUMBERS AND MEMBERSHIP, 1891 TO 1983

Trade union statistics have been collected by the ABS on a systematic basis for Australia from 1912 to the present. As mentioned above, earlier figures for 1891, 1896, 1901 and 1906 through to 1911 were compiled retrospectively by the Bureau on the basis of a questionnaire sent to numerous unions. However not all unions were registered with State Registrars and some unions may have been unwilling or unable to give their earlier membership numbers to the Bureau. As a result the pre-1912 figures are less reliable than the figures from 1912 onwards.

Time series union membership figures reported here do not allow for persons who are members of more than one union. Thus if a person is a member of say three unions he or she will be counted three times. The ABS states that it is not aware of the extent of this "double counting" problem. However an indication of the extent of this duplication is given by comparing the Bureau's membership figures based on its population sample survey (for November 1976 and May 1982) with the membership figures based on questionnaires completed by trade union members (1912 to the present). The following table summarises these differences.

Table N3 Membership Estimate Differences

Year	Population survey figures ('000)		Questionnaire based figures ('000)	
	Males	Females	Males	Females
1976 (Nov)	1956.8	843.3	(Dec) 1741.2	771.5
1982 (May)	2024.4	988.0	(Dec) 1706.9	860.7

Another factor contributing to the discrepancy between these two sources of data is that self employed persons are excluded from the survey's study whereas the questionnaire-based figures include such members.

With regard to the union-based time series data reported here it needs to be noted that different unions adopt different practices when reporting membership numbers. Some for example include unfinancial members and members whose dues are in arrears - while others exclude these. As a result of these reporting practices changing over time, the comparability of the figures over time is impaired.

Finally note that because of the presence of interstate unions, the number of unions present in different states will not sum to the number of unions for Australia as a whole.

SOURCES:

Labour Report. Published each year with union membership data in the April 1913 issue (Labour and Industrial Branch Report No. 2) and every year thereafter beginning with Labour and Industrial Branch Report No. 5. The latest issue of the Labour Report was published in 1973.

Trade Union Statistics, Australia, Catalogue No. 6323.0 annual since 1969. A source of more recent annual trade union membership data.

Trade Union Members, Australia, November 1976 and March to May 1982, Catalogue No. 6325.0. An irregular publication on trade union membership based on a sample survey of the population. Figures reported in these two issues differ significantly from figures reported in the previously cited reference.

2. INDUSTRIAL DISPUTES, 1913 TO 1983

The Australian Bureau of Statistics (ABS), which was known as the Commonwealth Bureau of Census and Statistics (CBCS) prior to 1973, has published data on Australian industrial disputes from 1913 to the present. ABS statistics have a number of idiosyncracies.

First, only disputes that involve a loss of at least 10 working days are counted. Second, industrial dispute data are typically reported in terms of disputes occurring during a particular year. There are two important exceptions to this practice however. Industrial disputes by cause and settlement method are reported in terms of disputes occurring during a particular year only for the period 1922-1978 (inclusive). For the period 1913 to 1921 these data are reported in terms of disputes occurring at the beginning of each particular year. Thus if a strike commenced in December 1913, for example, and continued until January 1915, then it would appear as a 1913 statistic. For the post - 1978 period, these data are reported in terms of disputes ending in each particular year. Thus if a strike commenced in December, 1979, for example, and continued until January 1981, it would appear as a 1981 statistic.

The effect of these seemingly arbitrary definitional changes, in so far as the number of working days lost is concerned, is summarised in Table N4. It can be noted that the discrepancy for the years 1919 to 1921 are quite sizable.

A third issue is that ABS industrial disputes statistics include lock-outs as well as strikes. D.W. Oxnam in 'The Incidence of Strikes in Australia' Australian Labour Relations Readings, edited by J.E. Isaac and G.W. Ford (Sun Books, Melbourne, 1966) has noted that strikes make up the major component of these statistics. Accordingly these data more accurately reflect strike

Table N4 The Effect of Definitional Changes

Year	Number of Working Days Lost (in thousands) due to strikes:		
	Beginning in each year	Ending in each year	In progress during each year
1913	622.5		622.5
1914	1090.4		993.2
1915	583.2		683.0
1916	1678.9		1644.8
1917	4599.7		4689.3
1918	580.9		539.6
1919	6308.2		4303.7
1920	1872.1		3587.3
1921	956.6		1286.2
1979		3887.1	3964.4
1980		3062.4	3320.2
1981		4427.4	4192.2
1982		2219.0	2158.0
1983		1691.9	1641.4
1984		1252.2	1302.5

activity than lock-outs "... since there have been so few lock-outs during this period" (Oxnam, p.20)

Fourthly, it should be recognised that ABS industrial dispute statistics do not measure the losses incurred outside the particular establishment in which a strike occurs. Thus costs or benefits that are external to a particular establishment are not accounted for.

Note that from 1972 the breakdown of industrial disputes into various industry categories was substantially overhauled. The Australian Standard Industrial Classification (ASIC), which replaced the old pre-ASIC classification, has hindered historical comparisons. Data are available for both the old and new classifications from 1968 to 1971, and this overlap is useful for the purposes of comparison. However, the reclassification is something of a nuisance when faced with the problem of developing a continuous and consistent series. Table N5 gives further details on the ASIC and pre-ASIC

systems of classifications. The post-1971 data have been estimated here as near as possible to be consistent with the earlier pre-ASIC data. However, they are not precisely comparable to the pre-1972 data.

Table N5 Comparison of ASIC and Previous Industry Classification

ASIC code	Division	Sub-division	ASIC industry	Previous industry
B	12		Mining - Coal	Mining and quarrying Coal Mining
	11,13,14,15,16		Other	Other
C	29,31,32,33		Manufacturing - Metal products, machinery and equipment	Manufacturing - Engineering, metals, vehicles, etc.
	21-22,23 to 28,34		Other (a)	Other (b)
E	41,42		Construction (c)	Building and construction (d)
			Transport and Storage; communication	Transport -
	Class 5302		Stevedoring services	Stevedoring
	51,52,53 (except Class 5302),54,55,56		Other (e)	Other (f)
A,D F,I J,K,L			Other Industries (g)	Other industry groups (h)
			All industries	All industry groups

(a) Excludes electricity and gas

(b) Includes electricity and gas

(c) Excludes water, sewerage and drainage.

(d) Includes water, sewerage and drainage.

(e) Includes communication.

(f) Excludes communication.

(g) Includes electricity, gas and water. Excludes communication

(h) Excludes electricity and gas; water, sewerage and drainage. Includes communication.

SOURCE; CBCS Industrial Disputes, April 1973 (preliminary) Ref. No. 6.6,
p.2

Also recognise that the classification of industrial disputes by cause has been changed twice. The relationship between the various classifications and the Bicentennial Classification is illustrated in Table N6. The Classification here has 4 categories of dispute as caused by:

1. wages, hours and leave issues,

2. physical working conditions and managerial policy issues
3. trade union issues and
4. other issues.

The principal component of 'other issues' is political strikes.

Table N6 Industrial Dispute Classification by Cause

Source Paper Classification	1913-1954 Classification	1955-1969 Classification	1970 and after Classification
1. Wages, Hours and leave	1. Wages 2. Hours	1. Wages, Hours and leave	1. Wages 2. Hours of work 3. Leave, pensions Compensation provision etc.
2. Physical working conditions and Managerial Policy	3. Employment of particular classes of persons. 4. Working conditions.	2. Physical working conditions	4. Managerial Policy 5. Physical conditions.
3. Trade Unionism	5. Trade Unionism 6. Sympathy	3. Trade Unionism	6. Trade Unionism
4. Other	7. Other	4. Other	7. Other.

Finally, the classification of industrial disputes by settlement method changed in 1952. Table N7 summarises these changes. The figures for the two periods are broadly comparable except for the classifications of (1) Private negotiations and (2) Private mediation. These items are, strictly speaking, only comparable when aggregated. Also items (7) and (8) in Table 6 require aggregation for comparability prior to 1952.

It is important to note that settlement method data relate to the method directly responsible for the settlement of an industrial dispute. Other factors, though unrecorded, may also have contributed indirectly to the

settlement.

Table N7 Industrial Dispute Classification by Settlement Method.

Uniform Classification	1913-51 Classification	1952 and after Classification
1. Private Negotiation	1. Negotiations 1a. Direct between employers and employees	1. Negotiation (private)
2. Private Mediation	1b. Private third party intervention or assistance	2. Mediation (private)
3. State legislation	2. State Industrial legislation	3. State legislation
4. Commonwealth legislation	3. Commonwealth legislation	4. Commonwealth and joint Commonwealth State legislation
5. Replacing workers	4. Filling places of work people on strike or locked out.	5. Filling places of workers on strike or locked out.
6. Closing Down	5. Closing Down establishment permanently.	6. Closing down establishments permanently.
7. Resumption without negotiation.	6. Other Methods	7. Resumption without negotiation.
8. Other Methods		8. Other Methods.

SOURCES:

The primary source for industrial dispute data presented here is:

The Labour Report. Published for each year with industrial dispute statistics from 1914 issue (Labour Report No. 5) to 1973 (the final issue). This is the main source of annual data up until 1973. Thereafter ABS Industrial Disputes (6322.0), December issue is used. For sub-annual data readers can consult Quarterly/Monthly Summary of Australian Statistics - Published monthly to 1917 (No. 69) and thereafter quarterly with industrial

dispute statistics from July 1913 (No. 19) to 1976 (the final quarterly issue). This is the main source of quarterly data up until 1976, then followed by Industrial Disputes (6322.0).

A highly useful compilation of ABS annual industrial disputes is Sweet (1978). Another useful summary of much of the data reported in this chapter is contained in Department of Employment and Industrial Relations (1984).

REFERENCES:

- Coghlan T.A. Labour and Industry in Australia, Oxford University Press, 1918.
- Department of Employment and Industrial Relations, Submission to the Committee of Review into Australian Industrial Relations Law and Systems, May, 1984.
- Parsons T.G. "Learning the Rules of the Game: Some Notes on the Labour Movement in the Melbourne Manufacturing Industries, 1870-1890" Journal of Australian Studies, 6 June, 56-62, 1980.
- Sweet, T. Australian Strikes and Arbitration : 1822 to 1976, Working Paper 87, Management Centre, University of Aston, 1978.
- Thomas L The Development of the Labour Movement in the Sydney District of New South Wales, Canberra: Australian Society for the study of Labour History, 1962.
- Waters M. Strikes in Australia Sydney: Allen and Unwin, 1982.

NOTES FOR TABLES ON

D. NEW COMPOSITE ESTIMATES OF SELECTED LONG-RUN LABOUR SERIES, 1860-1984.)

In a recent study Pope and Withers (1985) derived long-run estimates of a number of labour market series, not previously estimated for the full period covered in their study, 1860-1984. The series relate to unemployment rates, money wages, employment, net migration, population and labour force.

1. Unemployment Rate.

Taking first the unemployment rate figures, the main source of these is the work of Barnard, Butlin and Pincus (1977), in turn based on estimates made by M.S. Keating (1967), Butlin and Dowie (1969) and the Australian Bureau of Statistics. Certain adjustments were however made to the BBP series for the early 1960s, when their series misrepresents the true situation. In linking earlier annual estimates by Keating with those of the Labour Force Survey, BBP used 'November-only' figures from the preliminary labour force survey conducted for mainland capital cities prior to the commencement of the full survey in 1964. The consequence was that the series does not adequately reflect the short, sharp surge in unemployment associated with the 1961 credit squeeze. For this reason, quarterly average figures were substituted from the same source for 1961-63.

For the years following the end of the BBP series, 1974-84, the figures are from A.B.S., Labour Force. Those of the earlier years come from two sources. For 1860-1894 we have used K.D. Buckley's (1967) recalculations of Butlin's earlier Amalgamated Society of Engineers unemployment series. Buckley's Index II was used and the calendar year series converted to fiscal year equivalents by a two-year moving average. Butlin's own rates were used for 1895 to 1900. Butlin was scaled to Buckley by the 1894 overlap ratio of .98: Buckley/Butlin, and the Butlin-Buckley (BB) series was then scaled to match

the BBP series using the 1901 overlap ratio of 1.035: (BBP/BB). It should be noted that the character of the data and the result obtained are largely insensitive to the precise overlap period used to obtain re-scaling. The relationships do not vary greatly in the contiguous periods.

Linking the Butlin-Buckley engineering series with the post-federation statistics is ambitious. However, apart from these being the only available data, the engineering series produced by Butlin overlaps the available aggregate trade union unemployment post-federation series until 1943. And there is a remarkably high correlation between the respective series over these years (the simple correlation coefficient is .96). As regards the trade union series based on unemployment returns to the Commonwealth Statistician from union officials, Forster (1965) has well documented the problems with this source, including the likely overstatement of unemployment by reporting union officials. We have not attempted to adjust these data, other than to carefully scale them to match census and, later, labour force survey unemployment measures.

2. Money Wage.

The nominal wage is obtained for 1861-1900 from the money wage index rates for the four major Australian colonies as given in N.G. Butlin (1962, p.158). The missing minor colonies are approximated by use of their respective parent colony's index. The indices are aggregated using work-force weights for each colony given in Endres (1984, p.68) with missing years linear interpolated. The nominal wage 1901-1906 uses Macarthy's (1971) update of the Butlin indexes and, as weights, the state census labour forces as enumerated earlier in this collection. The Butlin index refers to all occupations. They are linked, from 1901, to the series of average annual earnings for manufacturing. The Butlin-Macarthy index is re-based here on the manufacturing series and there is a close correlation evident from the available overlap, despite the differing coverage. The latest available earnings figure from the economic

census of manufacturing is 1982. To bring the series up to 1984 the annual percentage increase for average weekly earnings, all persons, was applied to the 1982 manufacturing figure. The source for the two additional years was ABS, Average Weekly Earnings, Australia (6302.0).

3. Total Employment.

The total employment series 1861 to 1900 comprises the colonial census labour force, as given in Endres (1984), less unemployed as determined above, and then interpolated for inter-censal years using N. Butlin's (1962) factory employment series for the four Eastern colonies, adjusted for the changing share of factory in total employment as revealed at the periodic census. For the period 1901 to 1974, total employment comes from M. Butlin (1977) and this is updated from the Australian Bureau of Statistics, The Labour Force.

4. Net Migration.

Turning to the figures of net migration, these represent total arrivals minus total departures, exclusive of troops and nurses, and for most years, ships' crews. Calendar year data from the Commonwealth Bureau of Census and Statistics Demography Bulletins have been converted via two year moving averages to their financial year equivalents, 1860-1904. Thereafter, figures for financial years have been taken directly from CBCS publications, Shipping and Overseas Migration, Demography Bulletins, and ABS, Australian Immigration Consolidated Statistics. A detailed discussion of the thorns in the early migration data can be found elsewhere (Pope 1981). These include apparent transpositional and arithmetic errors, unrecorded sea departures and statisticians' attempts to correct these, and the inclusion, until 1908, of international trans-shippers in the returns. The collective size of error is difficult to judge (some errors could cancel others), but confidence in the ability of the data to depict the main movements is enhanced by evidence that the Australian inflow series correlate highly with other countries (specifically the UK's) corresponding outflow series.

5. Labour Force.

A series for labour force is derived mechanically by adding unemployment employment as derived above. Unemployment is reported above as a rate since the engineering unemployment series operated on a scale which was different from the economy wide series. However an implied absolute economy-wide unemployment level follows from the composite series for rates and this is calculated with joint reference to the employment series such that:

$$\text{Labour Force} = \text{Employment} + \frac{\text{Employment} \times \text{Unemployment-Ratio}}{\text{Reciprocal-of-Unemployment-Ratio}}$$

6. Population.

Population is the Australian population at the midpoint of the financial year, as estimated by the Commonwealth Statistician, and appearing in Demography Bulletins and ABS Summary of Population and Vital Statistics. As a matter of inter-temporal consistency the post 1967 Aboriginal population has been excluded from these estimates (to include Aborigines would have involved estimating their numbers backwards from 1967 to 1860).

References.

- Barnard, A., Butlin, N.G. and Pincus, J.J. (1977), "Public and Private Sector Employment in Australia, 1901-1974", Australian Economic Review, 1977(1).
- Buckley, K.D. (1967), "A New Index of Engineering Unemployment", Economic Record, 43(101).
- Butlin, M.W. (1977), "A Preliminary Annual Data base, 1900/01 to 1973/74", Research Discussion Paper 7701, Sydney: Reserve Bank of Australia, May.
- Butlin, N.G. (1962), Australian Domestic Product, Investment and Foreign Borrowing, London: CUP.
- Butlin, N.G. and Dowie, J.A. (1969), 'Estimates of Australian Workforce and Employment, 1861 to 1961' Australian Economic History Review, IX (2).
- Endres, A. (1984), 'Colonial Workforce Aggregates: Estimates from Colonial Censuses, 1828-1901' Source Papers in Economic History No. 3, ANU, June.
- Forster, C. (1965), "Australian Unemployment, 1900-1940", Economic Record, 41(95), September.
- Keating, M.S. (1967), The Australian Workforce 1910-11 to 1960-61, Canberra: ANU.
- Pope, D. (1981), "Contours of Australian Immigration, 1900-30", Australian Economic History Review, XX:1.