

CHAPTER XXV.

VITAL STATISTICS.

§ 1. Births.

1. Births, 1924 to 1928.—The number of male and female births and the total births registered in Australia during the years 1924 to 1928 are shown in the tables hereunder. The numerical relation which these births bear to the population, and various other associated features, are given in later tables.

MALE BIRTHS, 1924 TO 1928.

Year.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	North. Ter.	Fed. Cap. Ter.	Australia.	
1924	27,350	18,500	10,050	5,941	4,215	2,700	29	15	68,800	
1925	27,878	18,592	10,316	5,824	4,210	2,664	36	22	69,542	
1926	27,217	18,203	10,132	5,906	4,306	2,584	40	34	68,422	
1927	27,792	18,068	10,197	5,865	4,366	2,515	32	45	68,880	
1928 {	Single births	27,694	17,416	10,022	5,745	4,386	2,336	38	67	67,704
	Twins ..	564	388	189	130	107	55	..	1	1,434
	Triplets ..	9	1	3	1	14
	Total births	28,267	17,805	10,214	5,876	4,493	2,391	38	68	69,152

FEMALE BIRTHS, 1924 TO 1928.

Year.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	North. Ter.	Fed. Cap. Ter.	Australia.	
1924	26,355	17,640	9,658	5,651	4,086	2,683	28	26	66,127	
1925	26,737	17,330	9,967	5,633	3,975	2,554	29	25	66,250	
1926	25,899	17,159	9,632	5,577	3,995	2,404	33	41	64,740	
1927	26,047	17,006	9,636	5,627	4,116	2,318	36	32	64,818	
1928 {	Single births	25,998	16,348	9,350	5,400	4,116	2,241	45	51	63,549
	Twins ..	517	344	213	130	95	59	..	1	1,359
	Triplets ..	9	1	6	2	18
	Total births	26,524	16,693	9,569	5,532	4,211	2,300	45	52	64,926

TOTAL BIRTHS, 1924 TO 1928.

Year.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	North. Ter.	Fed. Cap. Ter.	Australia.	
1924	53,705	36,140	19,708	11,592	8,301	5,383	57	41	134,927	
1925	54,615	35,922	20,283	11,457	8,185	5,218	65	47	135,792	
1926	53,116	35,362	19,764	11,483	8,301	4,988	73	75	133,162	
1927	53,839	35,074	19,833	11,492	8,482	4,833	68	77	133,698	
1928 {	Single births	53,692	33,764	19,372	11,145	8,502	4,577	83	118	131,253
	Twins ..	(a) 1,081	(b) 732	(c) 402	260	(d) 202	114	..	2	(e) 2,793
	Triplets ..	18	(f) 2	9	3	(f) 32
	Total births	54,791	34,498	19,783	11,408	8,704	4,691	83	120	134,078

(a) Nine stillborn twins not included.
 (b) Two stillborn twins not included.
 (c) Four stillborn twins not included.

(d) Sixteen stillborn twins not included.
 (e) Twenty-nine stillborn twins not included.
 (f) One stillborn triplet not included.

2. Birth Rates.—The next table gives the crude birth rates for the years 1924 to 1928.

CRUDE BIRTH RATE^(a), 1924 TO 1928.

Year.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Northern Territory.	Federal Capital Territory.	Australia.
1924 ..	24.11	22.01	23.87	21.88	23.09	25.07	15.82	10.65	23.24
1925 ..	24.01	21.49	23.82	21.06	22.23	24.44	17.69	9.96	22.89
1926 ..	22.89	20.84	22.58	20.55	22.14	23.62	19.39	12.28	22.02
1927 ..	22.69	20.30	22.24	20.12	22.03	23.01	16.06	10.49	21.67
1928 ..	22.60	19.70	21.76	19.76	21.79	22.13	19.73	14.90	21.33

(a) Number of births per 1,000 of the mean annual population.

Generally speaking the crude birth rate of Australia has shown a constant decline for many years, and the rate for 1928 is the lowest yet recorded.

The principal factor in determining the crude birth rate is the proportion of *married* women of child-bearing age in the community, but as the fecundity of women varies with age, the birth rate per 1,000 married women will vary according to the age composition of the group, and, other things being equal, the rate generally should be highest where the average age of married women is lowest. For the purposes of the following table the child-bearing age has been taken as from 15–44 years inclusive, and all births of which the mothers were stated to be over 45 years have been counted in the group 40–44.

The following table shows some of the more important factors which affect the birth rates, also the birth rates computed on various bases as follows:—Births per 1,000 of the population (crude); births per 1,000 women of child-bearing age; nuptial births per 1,000 married women of child-bearing age; births per 1,000 married women of child-bearing age corrected for inequalities in the age composition by taking the female population of Australia as a whole for a standard; and ex-nuptial births per 1,000 unmarried women aged 15–44 inclusive. The results are obtained from the births during the years 1920, 1921, and 1922 in relation to the age and conjugal condition of the population at the time of the Census of the 4th April, 1921.

The rates obtained from these computations place Tasmania first, and Queensland second, although the proportions of married women of child-bearing age in their populations were lower than the average for Australia. This result was due to the relatively low average age of the married women in these States, and the large proportion of ex-nuptial births. The relatively low proportion of married women of child-bearing age in Queensland was due to the large number of adult males employed in localities unsuited to women, a circumstance which accounts for the high masculinity of the population.

In Tasmania the relatively small proportion of married women arises from conditions directly opposite to those in Queensland. In the island State the numbers of the sexes were almost equal, while large numbers of the young adults emigrate to the mainland, leaving a population with abnormally high proportions of very young and very old. Although the proportion of married women of child-bearing age was lower in Tasmania than in Queensland, and the average age was the same in both States, Tasmania had the greater weight in the more productive age-groups—from 15 to 24 years.

Western Australia, though fifth in order of the crude birth rates, takes third place when the rates are computed in relation to women only, the change in position being

due to the high masculinity. Although the average age of married women of reproductive ages was higher than in any other State, the uncorrected birthrate for nuptial births per 1,000 married women was higher than in New South Wales, Victoria, or South Australia. The adjustment for age improves the status of Western Australia very considerably, though not sufficiently to alter the sequence of its position.

The crude birth rate placed New South Wales third, but on the adjusted rate per 1,000 married women it takes fifth place. The high position of New South Wales in regard to crude birth rates was due rather to the large proportion in the population of married women of child-bearing age than to their productiveness.

Victoria was the only State with an excess of females in its population, and the proportion to the total population of women aged 15-44 was the largest among the States, but as the proportion of these who were married was the lowest, the primary factor in the crude birth rate, viz., the proportion to the total population of married women of reproductive ages was the smallest.

The difference between the adjusted birth rates per 100 married women of child-bearing ages for New South Wales and Victoria was very small, and the proportions of ex-nuptial to all births in these States were almost identical.

Although 12.53 per cent. of its total population consisted of married women of child-bearing age—against an average of 12.20 for Australia—South Australia occupies fourth place in the order of crude birth rates. The advantage from its high proportion of potentially productive women was to some extent counteracted by their average age being somewhat above the average for Australia, while its position was also affected by the very small proportion of ex-nuptial births. The number of nuptial births per 100 married women of child-bearing age in South Australia represented 18.71, as against 19.65 for Australia, but the difference was somewhat reduced by the adjusting process which makes the rate for South Australia 18.99 as against the Australian rate of 19.65.

BIRTH RATES, AND FACTORS AFFECTING THEM.—AVERAGE OF YEARS 1920, 1921, 1922.

Particulars.	N.S.W.	Vic.	Q'land.	S.A.	W.A.	Tas.	Australia.
Crude birth rate per 1,000 persons	25.99	23.54	26.72	24.23	24.14	26.99	25.15
Birth rate per 100 women 15-44 incl.	11.04	9.79	11.83	10.25	11.05	11.91	10.74
Birth rate per 100 married women 15-44 incl. (a)	19.39	19.29	21.26	18.71	19.62	21.83	19.65
Birth rate per 100 married women 15-44 incl. (corrected for age variation)	19.14	19.44	20.77	18.99	20.44	21.24	19.65
Ex-nuptial births—per cent. on all births	4.82	4.84	5.00	3.28	4.02	5.11	4.69
Ex-nuptial births per 100 unmarried women 15-44 incl.	1.16	0.92	1.26	0.72	0.92	1.26	1.05
Women 15-44 incl.—per cent. all persons	23.54	24.02	22.57	23.65	21.83	22.67	23.41
Average age of all women 15-44 incl.	28.67	28.61	28.09	28.73	28.45	28.10	28.54
Married women 15-44 incl.—per cent. on all persons	12.75	11.61	11.93	12.53	11.81	11.73	12.20
Average age of married women 15-44 incl.	32.24	32.74	32.16	32.67	33.02	32.16	32.48

(a) Nuptial births only.

The following figures give a comparison for Australia, at Census periods from 1880, of the total births per 1,000 women (married and unmarried) and of the nuptial births per 1,000 married women of ages 15 to 44 inclusive:—

Particulars.	1880-82.	1890-92.	1900-02.	1910-12.	1920-22.
Births per 1,000 women aged 15-44	169.7	158.8	117.3	117.2	107.4
Nuptial births per 1,000 married women 15-44	321.0	332.0	235.8	236.0	196.5

3. Birth Rates of Various Countries.—(i) *Crude Rates.* A comparison with other countries shows that the Australian States occupy a midway position, which is, however, counterbalanced by a still lower position in regard to their death rates, as evidenced in the table hereinafter in the section dealing with "Deaths."

CRUDE BIRTH RATES(a).—VARIOUS COUNTRIES.

Country.	Year.	Rate.	Country.	Year.	Rate.
Egypt	1927	50.6	Australia	1923	21.3
Chile	1926	44.8	Finland	1927	21.2
Soviet Republics	1927	41.0	Ontario (Canada)	1928	21.2
Ceylon	1927	39.5	Northern Ireland	1928	20.8
Jamaica	1924	36.8	Irish Free State	1928	20.0
Rumania	1927	35.2	Scotland	1928	19.8
Japan	1927	33.6	South Australia	1928	19.8
Poland	1928	32.5	U.S. of America (b)	1928	19.7
Quebec (Canada)	1928	31.6	Victoria	1928	19.7
Argentine	1926	31.1	Denmark	1928	19.6
Spain	1928	29.6	New Zealand	1928	19.6
Italy	1928	26.1	New York State	1928	19.2
Union of South Africa (whites)	1928	25.9	Germany	1928	18.6
Hungary	1928	25.7	Prussia	1928	18.6
Bulgaria	1927	24.6	Belgium	1928	18.3
Uruguay	1927	24.6	France	1928	18.2
Canada	1928	24.5	Norway	1928	18.0
Czecho-Slovakia	1928	23.3	Austria	1928	17.5
Netherlands	1928	23.3	Switzerland	1928	17.3
New South Wales	1928	22.6	Great Britain and Northern Ireland	1927	17.1
Tasmania	1928	22.1	England and Wales	1928	16.7
Queensland	1928	21.8	Sweden	1928	16.2
Western Australia	1928	21.8			

(a) Number of births per 1,000 of the mean population. (b) Figures for "provisional birth-registration area."

(ii) *Nuptial Birth Rates at Child-bearing Ages.* The wide discrepancies between the crude birth rates of the various countries are, to some extent, due to differences in sex and age constitution and in conjugal condition. If the birth rates be calculated per 1,000 women of child-bearing ages, the comparison gives more reliable results. The comparative results given in the following table have been taken from the *Annuaire International de Statistique*, and are based on ages 15 to 49 years, Australia with a rate of 198 being, again, midway between maximum and minimum :—

NUPTIAL BIRTH RATES PER 1,000 MARRIED WOMEN AGED 15 TO 49 YEARS—VARIOUS COUNTRIES.

Country.	Period.	Rate.	Country.	Period.	Rate.
Bulgaria	1910-11	280	Australia	1906-15	198
Ireland	1909-12	250	Hungary	1906-15	198
Netherlands	1905-14	233	Germany	1907-14	196
Finland	1906-15	230	Sweden	1908-13	196
Italy	1907-14	226	Denmark	1906-15	191
Norway	1907-14	224	New Zealand	1906-15	188
Austria	1908-13	219	Switzerland	1906-15	184
Spain	1906-15	218	England and Wales	1906-15	171
Prussia	1907-14	204	Belgium	1908-13	161
Scotland	1906-15	202	France	1910-11	114

4. *Masculinity of Births.*—(i) *General.* The masculinity of births, i.e., the excess of males over females per 100 births registered for each State, during the last five years varied from 0.32 in Tasmania in 1924 to 4.08 in the same State in 1927. On account of the smallness of the numbers, the returns from the Northern Territory and the Federal Capital Territory have not been taken into consideration. The following table gives particulars for the years 1924 to 1928.

MASCULINITY^(a) OF BIRTHS REGISTERED, 1924 TO 1928.

Year.	N.S.W.	Vic.	Q'land.	S. Aust.	W.Aust.	Tas.	Northern Territory.	Federal Capital Territory.	Australia.
1924 ..	1.85	2.38	1.99	2.50	1.55	0.32	1.75	-26.83	1.98
1925 ..	2.09	3.51	1.72	1.67	2.87	2.11	10.77	-6.38	2.42
1926 ..	2.48	2.95	2.53	2.87	3.75	3.61	9.59	-9.33	2.77
1927 ..	3.24	3.03	2.83	2.07	2.95	4.08	-5.88	16.88	3.04
1928 ..	3.18	3.22	3.26	3.02	3.24	1.94	-8.43	13.33	3.15

(a) Excess of males over females per 100 total births.

NOTE.—The minus sign (-) denotes an excess of females over males per 100 total births.

(ii) *Masculinity of Ex-nuptial Births.* The masculinity of ex-nuptial births was as follows:—MASCULINITY^(a) OF EX-NUPTIAL BIRTHS, 1924 TO 1928.

Year.	N.S.W.	Vic.	Q'land.	S. Aust.	W.Aust.	Tas.	Northern Territory.	Federal Capital Territory.	Australia.
1924 ..	3.21	-0.96	0.19	2.54	2.14	-5.26	7.69	100.00	1.20
1925 ..	4.12	4.86	-3.38	-4.18	8.66	-2.83	25.00	..	2.46
1926 ..	1.13	2.06	1.80	1.42	5.85	4.76	36.36	-66.66	1.97
1927 ..	3.83	4.24	6.11	-4.97	-0.30	7.81	-15.38	..	3.67
1928 ..	2.99	3.94	2.72	-0.53	4.45	-12.24	38.46	100.00	2.57

(a) Excess of males over females per 100 total ex-nuptial births.

NOTE.—The minus sign (-) denotes an excess of females over males per 100 total ex-nuptial births.

Although the general tendency of the change in the sex composition of the ex-nuptial births has been the same as in the total births, the results in the smaller States do not show the same consistency in the former as in the latter on account of the relatively small numbers involved.

(iii) *Masculinity of Nuptial and Ex-nuptial Births—Various Countries.* There is ordinarily a very small difference between the masculinity of nuptial and ex-nuptial births. Thus, according to the following table, for periods from 1914 to 1925, the masculinity in various countries ranged from 4.72 to 2.26, and from 4.97 to 0.11 for nuptial and ex-nuptial births respectively.

MASCULINITY OF BIRTHS.—VARIOUS COUNTRIES.

Country.	Period.	Masculinity of Births. ^(a)		Country.	Period.	Masculinity of Births. ^(a)	
		Nuptial Live Births.	Ex-nuptial Live Births.			Nuptial Live Births.	Ex-nuptial Live Births.
Spain ..	1914-22	4.72	3.11	Denmark ..	1914-23	2.66	2.50
Hungary ..	1915-22	3.55	1.79	Italy ..	1914-23	2.64	2.39
Prussia ..	1914-24	3.37	2.96	Australia ..	1914-25	2.61	2.57
Germany ..	1914-23	3.30	3.03	Switzerland	1914-23	2.55	2.86
Finland ..	1914-23	3.03	2.35	Uruguay ..	1914-23	2.55	4.97
Irish Free State ..	1922-25	2.95	4.30	Northern Ireland ..	1913-23	2.48	2.73
Austria ..	1914-21	2.95	2.53	France ..	1912-19	2.46	1.75
Sweden ..	1914-20	2.93	2.59	Scotland ..	1914-23	2.38	2.05
Netherlands	1914-24	2.85	2.39	Japan ..	1914-24	2.34	0.11
Belgium ..	1919-23	2.82	1.51	England and Wales ..	1914-25	2.30	2.07
New Zealand	1914-25	2.72	1.48	Chile ..	1918-23	2.26	2.23
Norway ..	1914-22	2.71	3.64				
Canada (excluding Quebec) ..	1921-24	2.68	3.53				

(a) Excess of males over females per 100 total births.

5. *Ex-nuptial Births.*—(i) *General.* The number of ex-nuptial births reached its maximum, 7,438, in 1913, but it has since fallen considerably. On the average of the five years 1910–14, the number of ex-nuptial births in Australia was 7,171, while for the period 1924–28 it was only 6,289, a decline of 12.3 per cent., whereas the annual average total births for the same period increased by 4.0 per cent.; hence a comparison between the results for these two periods shows that the proportion of ex-nuptial births has fallen from 5.55 to 4.68 per cent. of all births.

It is, of course, possible that the number of ex-nuptial births is somewhat understated, owing to diffidence in proclaiming the fact of ex-nuptiality, and it is not unlikely that the majority of unregistered births are ex-nuptial.

EX-NUPTIAL BIRTHS, 1924 TO 1928.

Year.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Northern Territory.	Federal Capital Territory.	Australia.
1924 ..	2,589	1,668	1,052	355	327	228	13	1	6,233
1925 ..	2,764	1,543	1,035	359	335	247	24	..	6,307
1926 ..	2,747	1,603	1,000	353	325	231	22	3	6,284
1927 ..	2,691	1,556	1,063	362	335	256	26	..	6,289
1928 ..	2,713	1,624	1,028	378	337	237	13	1	6,331

(ii) *Rate of Ex-nuptiality, 1924 to 1928.* The rate of ex-nuptiality, i.e., the percentage of ex-nuptial on total births increased from 4.62 in 1924 to 4.72 in 1928. On the basis of the figures given in the preceding sub-section the ex-nuptial rate fell from 5.55 per cent. of all births during the years 1910–14 to 4.68 per cent. for the years 1924–28.

PERCENTAGE OF EX-NUPTIAL ON TOTAL BIRTHS, 1924 TO 1928.

Year.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Northern Territory.	Federal Capital Territory.	Australia.
	%	%	%	%	%	%	%	%	%
1924 ..	4.82	4.62	5.34	3.06	3.94	4.24	22.81	2.44	4.62
1925 ..	5.06	4.30	5.10	3.13	4.09	4.73	36.92	..	4.64
1926 ..	5.17	4.53	5.06	3.07	3.92	4.63	30.14	4.00	4.72
1927 ..	5.00	4.44	5.36	3.15	3.95	5.30	38.24	..	4.70
1928 ..	4.95	4.71	5.20	3.31	3.87	5.05	15.66	0.83	4.72

A better comparison is obtained by calculating the number of ex-nuptial births per thousand of the single and widowed female population between the ages of 15 and 45. The number of ex-nuptial births per 1,000 unmarried women of ages 15 to 45 has been found to be as follows:—Years 1880–82, 14.49; years 1890–92, 15.93; years 1900–02, 13.30; years 1910–12, 12.53; and years 1920–22, 10.50. The comparative results given in the following table have been taken from the *Annuaire International de Statistique*, Vols. II. and V., and are based on ages 15 to 49 years:—

EX-NUPTIAL BIRTHS PER 1,000 UNMARRIED WOMEN AGED 15 TO 49 YEARS—
VARIOUS COUNTRIES.

Country.	Period.	Rate.	Country.	Period.	Rate.
Hungary	1906-15	38	Norway	1907-14	13
Austria	1908-13	30	Scotland	1906-15	13
Sweden	1908-13	26	Australia	1906-15	12
Denmark	1906-15	24	Belgium	1908-13	12
Germany	1907-14	23	New Zealand	1906-15	9
Prussia	1907-14	21	Switzerland	1906-15	8
Finland	1906-15	17	England and Wales	1906-15	7
France	1901-11	16	Netherlands	1905-14	5
Italy	1907-14	14	Ireland	1909-12	4
Spain	1906-15	14	Bulgaria	1910-11	4

(iii) *Comparison of Rates.* The following table shows the relative proportions of ex-nuptial and nuptial births to the total population during the last five years:—

CRUDE EX-NUPTIAL, NUPTIAL, AND TOTAL BIRTH RATES(a).—AUSTRALIA,
1924 TO 1928.

Rates.	1924.	1925.	1926.	1927.	1928.
Ex-nuptial	1.07	1.06	1.07	1.02	1.01
Nuptial	22.17	21.83	20.95	20.65	20.32
Total	23.24	22.89	22.02	21.67	21.33

(a) Number of births per 1,000 of mean population.

6. *Legitimations.*—(i) *General.* In the several States Acts have been passed to legitimize children born before the marriage of their parents, provided that no legal impediment to the marriage existed at the time of birth. On registration in accordance with the provisions of the Legitimation Acts, any child who comes within the scope of its intentions, born before or after the passing thereof, is deemed to be legitimized from birth by the post-natal union of its parents, and entitled to the status of offspring born in wedlock.

(ii) *States, 1924 to 1928.* The number of registrations under the Legitimation Acts during the years 1924 to 1928 are as follows:—

LEGITIMATIONS, 1924 TO 1928.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Australia.
1924 ..	396	121	173	61	56	26	833
1925 ..	414	133	171	41	84	28	871
1926 ..	532	133	164	49	59	19	956
1927 ..	646	159	157	60	56	22	1,100
1928 ..	668	105	160	49	66	21	1,069

7. *Multiple Births.*—Among the total number of 134,078 births registered in Australia in 1928, there were 131,253 single births, 2,793 twins, and 32 triplets. The number of cases of twins was 1,412, there being 31 stillbirths, and there were 11 cases of triplets, including one stillbirth. The total number of mothers was, therefore, 132,676; the proportion of mothers of twins being one in every 94, and of mothers of triplets one in every 12,062 of total mothers.

MULTIPLE BIRTHS.—AUSTRALIA, 1924 TO 1928.

Year.	Cases of Twins.	Cases of Triplets.	Cases of Quadruplets.	Total Multiple Births.	Percentage of Cases of Multiple Births on Total Mothers.	Number of Mothers to Each Multiple Birth.
1924 ..	1,337	12	..	1,349	1.01	99
1925 ..	1,458	11	..	1,469	1.09	91
1926 ..	1,412	11	..	1,423	1.08	93
1927 ..	1,452	20	..	1,472	1.11	90
1928 ..	1,412	11	..	1,423	1.07	93

8. Ages of Parents.—(i) *Single Births.* The relative ages of the parents of children registered in 1928 have been tabulated separately for male and female births, twins and triplets being distinguished from single births, and are shown for single ages and for every State in the Bulletin of "Australian Demography," No. 46, published by this Bureau. In the present work the exigencies of space allow only the insertion of corresponding tables showing the relative ages of parents in groups of five years.

AGES OF PARENTS IN CASES OF SINGLE BIRTHS.—AUSTRALIA, 1928.

Ages of Fathers and Sexes of Children.		Total Children.	Ages of Mothers.								
			Under 15.	15 to 19.	20 to 24.	25 to 29.	30 to 34.	35 to 39.	40 to 44.	45 and upwards.	Un-specified.
Under 20	Males..	446	..	311	127	6	2
	Females	395	4	291	99	1	..	..	..	..
	Total..	841	4	602	226	7	2	..	..	..
20 to 24	Males..	8,243	1	2,026	5,217	880	97	22	..	..
	Females	7,703	19	1,861	4,855	869	76	20	3	..	
	Total..	15,946	20	3,887	10,072	1,749	173	42	3	..	
25 to 29	Males..	16,930	..	834	6,890	7,584	1,436	163	23	..	
	Females	15,730	6	779	6,423	7,131	1,228	148	15	..	
	Total..	32,660	6	1,613	13,313	14,715	2,664	311	38	..	
30 to 34	Males..	15,124	..	205	2,349	6,078	5,467	951	72	2	
	Females	14,138	1	173	2,132	5,621	5,237	892	78	3	
	Total..	29,262	1	378	4,481	11,699	10,704	1,843	150	5	
35 to 39	Males..	12,015	..	60	675	2,606	4,462	3,769	435	8	
	Females	11,498	..	43	647	2,471	4,252	3,670	400	14	
	Total..	23,513	..	103	1,322	5,077	8,714	7,439	835	22	
40 to 44	Males..	7,006	..	24	220	755	1,924	2,699	1,338	46	
	Females	6,557	..	22	181	728	1,722	2,613	1,254	37	
	Total..	13,563	..	46	401	1,483	3,646	5,312	2,592	83	
45 to 49	Males..	3,080	..	6	57	233	546	1,183	908	127	
	Females	2,924	..	7	61	193	513	1,089	929	132	
	Total..	5,984	..	13	118	426	1,059	2,272	1,837	259	
50 to 54	Males..	1,111	..	..	16	74	193	351	386	91
	Females	1,046	..	2	19	63	165	304	353	80	
	Total..	2,157	..	2	35	137	358	715	739	171	
55 to 59	Males..	375	..	1	12	27	65	119	120	31	
	Females	366	..	..	6	31	68	114	114	33
	Total..	741	..	1	18	58	133	233	234	64	
60 to 64	Males..	128	..	..	3	6	25	46	35	13
	Females	104	..	..	7	7	16	33	34	7
	Total..	232	..	..	10	13	41	79	69	20
65 and upwards	Males..	59	..	..	1	9	8	19	20	2
	Females	58	..	1	2	6	7	18	21	3	
	Total..	117	..	1	3	15	15	37	41	5	
Un-specified	Males..	2	..	..	..	1	1	..	..	..
	Females	4	..	..	1	..	1	..	..	..
	Total..	6	..	..	1	1	2	..	..	2
Nuptial children	Males..	64,499	1	3,467	15,567	18,250	14,226	9,322	3,937	320	
	Females	60,523	30	3,179	14,433	17,121	13,285	8,961	3,201	309	
	Total..	125,022	31	6,646	30,000	35,380	27,511	18,283	6,538	629	
Ex-nuptial children	Males..	3,205	19	961	1,095	485	298	241	89	14	
	Females	3,026	58	869	993	485	311	214	82	10	
	Total..	6,231	77	1,830	2,088	970	609	455	171	24	
Total children	Males..	67,704	20	4,428	16,662	18,744	14,524	9,563	3,426	334	
	Females	63,549	88	4,048	15,426	17,606	13,596	9,175	3,283	319	
	Total..	131,253	108	8,476	32,088	36,350	28,120	18,738	6,709	653	

(ii) *Twins.* The ages of parents of twins in 1928 are given hereunder :—

AGES OF PARENTS OF TWINS.—AUSTRALIA, 1928.

Ages of Fathers and Sexes of Children.		Total Children.	Ages of Mothers.						
			Under 20.	20 to 24.	25 to 29.	30 to 34.	35 to 39.	40 to 44.	45 and over.
Under 20	{ Males ..	6	2	3	..	..	1	..	..
	{ Females ..	8	..	7	..	..	1	..	..
	{ Total ..	14	2	10	..	..	2	..	..
20 to 24	{ Males ..	113	21	81	11	..	..	..	..
	{ Females ..	116	24	73	15	4	..	..	..
	{ Total ..	229	45	154	26	4	..	..	..
25 to 29	{ Males ..	307	11	102	144	46	4	..	..
	{ Females ..	251	11	84	127	21	8	..	..
	{ Total ..	558	22	186	271	67	12	..	..
30 to 34	{ Males ..	338	..	32	130	144	31	1	..
	{ Females ..	290	..	32	112	116	29	1	..
	{ Total ..	628	..	64	242	260	60	2	..
35 to 39	{ Males ..	328	..	10	54	109	136	19	..
	{ Females ..	313	..	9	44	123	119	18	..
	{ Total ..	641	..	19	98	232	255	37	..
40 to 44	{ Males ..	191	..	3	17	44	99	28	..
	{ Females ..	195	..	3	15	56	83	36	2
	{ Total ..	386	..	6	32	100	182	64	2
45 to 49	{ Males ..	74	..	..	2	21	31	20	..
	{ Females ..	82	..	..	10	18	33	19	2
	{ Total ..	156	..	..	12	39	64	39	2
50 to 54	{ Males ..	26	..	..	..	2	14	10	..
	{ Females ..	35	..	..	..	8	14	11	2
	{ Total ..	61	..	..	..	10	28	21	2
55 to 59	{ Males ..	6	..	..	..	..	3	3	..
	{ Females ..	8	..	..	..	..	5	3	..
	{ Total ..	14	..	..	..	..	8	6	..
60 and over..	{ Males ..	3	..	..	..	1	2	..	..
	{ Females ..	3	..	..	..	1	..	2	..
	{ Total ..	6	..	..	..	2	2	2	..
Nuptial Children	{ Males ..	1,392	34	231	358	367	321	81	..
	{ Females ..	1,361	35	208	323	347	292	90	6
	{ Total ..	2,693	69	439	681	714	613	171	6
Ex-nuptial Children	{ Males ..	42	6	14	8	8	4	2	..
	{ Females ..	58	12	14	7	12	9	4	..
	{ Total ..	100	18	28	15	20	13	6	..
Total Children	{ Males ..	1,434	40	245	366	375	325	83	..
	{ Females ..	1,359	47	222	330	359	301	94	6
	{ Total ..	2,793	87	467	696	734	626	177	6

(iii) *Triples*. Particulars regarding the ages of parents in case of triples are given in the next table :—

AGES OF PARENTS OF TRIPLES.—AUSTRALIA, 1928.

Ages of Fathers and Sexes of Children.			Total Children.	Ages of Mothers.							
				23.	25.	28.	31.	35.	38.	39.	
26	..	{ M.	1	(a)1	..	..	..	..	..	..	..
		{ F.	1	1	..	..	..	..	..	..	..
27	..	.. M.	3	3	..	..	..	..	..	..	..
29	..	.. F.	6	3	3	..	..	..	..	..	..
33	..	{ M.	1	..	..	..	1	..	..	..	..
		{ F.	2	..	..	..	2	..	..	..	..
37	..	{ M.	1	..	..	..	..	1	..	..	..
		{ F.	2	..	..	..	..	2	..	..	..
38	..	{ M.	2	..	..	2	..	..	..	..	..
		{ F.	1	..	..	1	..	..	..	..	..
43	..	{ M.	5	..	..	..	..	..	5	..	..
		{ F.	1	..	..	..	..	..	1	..	..
44	..	.. F.	3	..	..	..	..	..	..	..	3
59	..	{ M.	1	..	..	..	..	..	..	..	1
		{ F.	2	..	..	..	..	..	..	..	2
Total	Nuptial	Child.	{ M.	14	4	..	2	1	1	5	1
ren	..	..	{ F.	18	4	3	1	2	2	1	5

(a) Excluding one triplet stillborn.

9. Birthplaces of Parents.—The relative birthplaces of the parents of children whose births were registered during the year 1928 will be found in the Bulletin of "Australian Demography," published by this Bureau. A summary of the results of the tabulation is given hereunder.

BIRTHPLACES OF PARENTS.—AUSTRALIA, 1928.

Birthplaces.	Fathers.			Mothers of Nuptial Children.			Mothers of Ex-nuptial Children.		
	Single Births.	Twins.	Triples.	Single Births.	Twins.	Triples.	Single Births.	Twins.	Triples.
AUSTRALASIA—									
New South Wales ..	41,354	435	4	42,996	439	4	2,361	20	..
Victoria ..	29,994	327	3	30,025	316	1	1,366	13	..
Queensland ..	13,784	143	..	15,262	156	2	879	3	..
South Australia ..	10,044	114	2	9,893	109	1	348	4	..
Western Australia ..	3,726	46	..	4,668	53	1	247	2	..
Tasmania ..	5,485	71	1	5,415	67	..	354	4	..
Northern Territory	44	..	..	53	..	..	14	..	..
Federal Capital Territory	6	..	..	12	..	..	6	..	..
New Zealand ..	993	16	..	756	7	..	80	..	..

BIRTHPLACES OF PARENTS.—AUSTRALIA, 1928—*continued.*

Birthplaces.	Fathers.			Mothers of Nuptial Children.			Mothers of Ex-nuptial Children.		
	Single Births.	Twins.	Trip-lets.	Single Births.	Twins.	Trip-lets.	Single Births.	Twins.	Trip-lets.
EUROPE—									
England and Wales	11,688	130	..	10,143	127	..	356	5	..
Scotland	3,216	34	..	2,789	36	..	113	..	..
Ireland	1,309	11	1	894	21	1	26	..	..
Other British Possessions in Europe	152	3	..	115	3	..	4	..	..
Denmark	118	1	..	43	..	..	3	..	..
Finland	57	..	..	8	..	..	2	..	..
France	47	..	..	45	2	..	3	..	..
Germany	296	2	..	122	1	..	9	..	..
Greece	276	3	..	198	3	..	..	..	..
Italy	708	5	..	567	5	..	7	..	..
Jugo-Slavia	82	..	..	70	..	..	1	..	..
Netherlands	54	3	..	22	..	..	..	..	..
Norway	66	..	..	10	..	..	..	..	..
Poland	70	1	..	46	1	..	1	..	..
Russia	164	1	..	110	2	..	6	..	..
Sweden	90	..	..	7	..	..	2	..	..
Switzerland	47	..	..	17	..	..	2	..	..
Other Countries in Europe	121	2	..	86	3	..	..	..	..
ASIA—									
British India and Ceylon	123	1	..	89	2	..	3	..	..
China	76	..	..	20	..	..	..	..	..
Japan	20	..	..	11	1	..	..	..	..
Syria	107	..	..	75	..	..	..	..	..
Other Countries in Asia	57	..	..	30	..	..	..	..	..
AFRICA—									
Union of South Africa	191	2	..	148	3	1	9	..	..
Other African Countries	31	..	..	33	..	..	..	..	..
AMERICA—									
Canada	102	2	..	39	..	..	5	..	..
United States of America	176	4	..	107	4	..	3	..	..
Other American Countries	38	1	..	33	..	..	2	..	..
POLYNESIA—									
Fiji	24	1	..	22	..	..	2	..	..
New Caledonia	20	1	..	22	..	..	..	..	..
New Hebrides	9	..	..	2	..	..	3	..	..
Other Polynesian Islands	15	..	..	4	..	..	1	..	..
At Sea	35	1	..	10	..	..	1	..	..
Unspecified	7	..	..	5	..	..	12	..	..
Total	125,022	1,361	11	125,022	1,361	11	6,231	51	..

10. Occupations of Fathers.—(i) Year 1928. A summary of the main groups of occupations of the fathers of all nuptial children whose births were registered in 1928 is given in the following table :—

OCCUPATIONS OF FATHERS OF NUPTIAL CHILDREN.—AUSTRALIA, 1928.

Occupations.	Number of Fathers.	Occupations.	Number of Fathers.
CLASS I.—PROFESSIONAL.		CLASS V.—INDUSTRIAL.	
Government, Defence, Law ..	2,532	Art and Mechanic Productions ..	6,927
Others	3,705	Textiles and Fibrous Materials ..	1,769
Total Class I.	6,237	Food and Drinks	2,496
		Animal and Vegetable Substances	818
		Metals and Minerals	3,005
CLASS II.—DOMESTIC.		Fuel, Light, and Energy	1,308
Board and Lodging	1,040	Building and Construction	7,682
Others	1,184	Others	32,056
Total Class II.	2,224	Total Class V.	56,061
CLASS III.—COMMERCIAL.		CLASS VI.—AGRICULTURAL, PASTORAL, MINING, ETC.	
Property and Finance	1,475	Agricultural	19,251
Art, Mechanic, and Textile Products	1,231	Pastoral	4,510
Food and Drinks	3,746	Mining and Quarrying	2,741
Animal and Vegetable Substances	543	Others	1,310
Fuel, Light, and Metals	345	Total Class VI.	27,812
Merchants and Dealers	2,528		
Others	8,210	CLASS VII.—INDEFINITE.	
Total Class III.	18,078	Independent Means	281
CLASS IV.—TRANSPORT AND COMMUNICATION.		Occupation Unspecified	101
Railway Traffic	5,033	Total Class VII.	382
Road and Tramway Traffic	7,332	TOTAL	126,394
Sea and River Traffic	1,322		
Others	1,913		
Total Class IV.	15,600		

(ii) Summary, 1924 to 1928. The next table gives a summary in classes of the occupations of fathers of nuptial children in each of the last five years, with the percentage of each class on the total number of fathers. In 1928, 44.35 per cent. of fathers were of the industrial class, and 22.01 per cent. were of the agricultural, pastoral, mining, &c., class.

OCCUPATIONS OF FATHERS OF NUPTIAL CHILDREN.—AUSTRALIA,
1924 TO 1928.

Class.		1924.	1925.	1926.	1927.	1928.
I. Professional	No.	5,946	6,077	6,075	6,034	6,237
	%	4.67	4.74	4.84	4.79	4.93
II. Domestic	No.	2,098	2,180	2,119	2,163	2,224
	%	1.64	1.70	1.69	1.72	1.76
III. Commercial	No.	18,519	17,978	17,636	17,655	18,078
	%	14.54	14.04	14.05	14.01	14.31
IV. Transport and Com- munication	No.	15,670	16,306	16,247	16,519	15,600
	%	12.30	12.73	12.94	13.11	12.34
V. Industrial	No.	53,899	54,214	53,557	54,589	56,061
	%	42.31	42.33	42.66	43.32	44.35
VI. Agricultural, pastoral, mining, etc.	No.	31,046	31,082	29,634	28,780	27,812
	%	24.37	24.27	23.61	22.84	22.01
VII. Indefinite	No.	213	244	266	269	382
	%	0.17	0.19	0.21	0.21	0.30
VIII. Dependents	No.	..	..	..	..	..
	%
Total	No.	127,391	128,081	125,534	126,009	126,394
	%	100.00	100.00	100.00	100.00	100.00

11. *Mother's Age, Duration of Marriage, and Issue.*—(i) *General.* The total number of nuptial confinements in 1928 was 126,394, viz., 125,022 single births, 1,361 cases of twins, and 11 cases of triplets, but in 26 cases the necessary information was lacking, and the following series of tables refers, therefore, to 126,368 nuptial confinements. Ex-nuptial children—previous issue by the same father—are included as previous issue, but children by former marriages, and stillborn children are excluded. The tables cannot be given *in extenso*, but the following are their most salient features. The complete tabulations are shown in "Australian Demography," No. 46.

(ii) *Duration of Marriage and Issue of Mothers.* The following table shows that the duration of marriage of mothers of nuptial children ranged from less than one year up to between 32 and 33 years, and that the average family increased fairly regularly with the duration of marriage. The average number of children of all marriages was 2.99, the corresponding figures for 1927 being 3.03; for 1926, 3.06; for 1925, 3.10; and for 1924, 3.08.

DURATION OF MARRIAGE AND ISSUE OF MOTHERS.—AUSTRALIA, 1928.

Duration of Marriage.	Total Mothers.	Total Issue.	Average Number of Children.	Duration of Marriage.	Total Mothers.	Total Issue.	Average Number of Children.
Years.				Years.			
0-1	20,978	21,351	1.02	18-19	1,368	9,828	7.18
1-2	12,191	14,522	1.19	19-20	1,084	8,447	7.79
2-3	11,455	19,837	1.73	20-21	948	7,599	8.02
3-4	10,587	21,637	2.04	21-22	694	5,858	8.44
4-5	9,268	22,439	2.42	22-23	538	4,765	8.86
5-6	8,160	22,260	2.73	23-24	334	3,018	9.04
6-7	7,406	22,922	3.09	24-25	228	2,180	9.56
7-8	6,913	23,445	3.39	25-26	164	1,615	9.85
8-9	6,602	24,572	3.72	26-27	103	987	9.58
9-10	5,065	20,537	4.06	27-28	46	477	10.37
10-11	3,700	16,284	4.40	28-29	36	366	10.16
11-12	3,262	15,173	4.65	29-30	7	55	7.86
12-13	3,168	15,874	5.01	30-31	9	104	11.56
13-14	2,995	15,877	5.30	31-32	2	21	10.50
14-15	2,833	16,294	5.75	32-33	1	10	10.00
15-16	2,401	14,564	6.07				
16-17	2,142	13,849	6.47	Total	126,368	378,385	2.99
17-18	1,680	11,618	6.92				

(iii) *Ages of Mothers and Issue.* The ages of mothers, issue, and average family are given in the attached table, which shows that the average family increased fairly regularly to a maximum of 7.64 children in the age-group 45 years and over, and that the greatest number of mothers occurs in the group 25 to 29 years.

AGES AND ISSUE OF MOTHERS.—AUSTRALIA, 1928.

Ages of Mothers.	Total Mothers.	Total Issue.	Average Number of Children.	Ages of Mothers.	Total Mothers.	Total Issue.	Average Number of Children.
Under 20 years	6,705	8,080	1.21	40-44 years ..	6,623	41,006	6.19
20-24 years ..	30,222	51,768	1.71	45 yrs. and over	632	4,828	7.64
25-29 " ..	35,723	87,807	2.46				
30-34 " ..	27,867	97,456	3.50				
35-39 " ..	18,596	87,440	4.70	All ages ..	126,368	378,385	2.99

(iv) *Previous Issue of Mothers, Various Ages.* The previous issue, according to the age of the mother, is given in the following table.

PREVIOUS ISSUE OF MOTHERS OF VARIOUS AGES.—AUSTRALIA, 1928.

Previous Issue.	Mothers' Ages.							Total.
	Under 20 Years.	20-24 Years.	25-29 Years.	30-34 Years.	35-39 Years.	40-44 Years.	45 Years and Over.	
0	5,470	15,906	11,294	4,495	1,843	400	27	39,435
1	1,135	9,122	9,936	5,857	2,383	484	22	28,939
2	95	3,731	6,790	5,552	2,836	621	28	19,653
3	5	1,160	4,268	4,427	2,712	673	37	13,282
4	..	240	2,229	3,174	2,335	728	55	8,761
5	..	54	862	2,008	1,979	740	74	5,717
6	..	6	247	1,264	1,662	705	75	3,959
7	..	3	70	612	1,149	640	59	2,533
8	..	..	20	301	835	568	58	1,782
9	..	..	7	114	474	450	62	1,107
10	..	..	..	39	235	305	55	634
11	..	..	..	18	81	166	30	295
12	..	..	..	6	48	80	23	157
13	..	..	..	..	13	30	14	57
14	..	..	..	..	9	15	7	31
15	..	..	..	..	1	10	3	14
16	..	..	..	..	1	5	3	9
17	..	..	..	..	..	2	..	2
20	..	..	..	..	..	1	..	1
Total Mothers	6,705	30,222	35,723	27,867	18,596	6,623	632	126,368

(v) *Previous Issue of Mothers of Twins and Triplets.* Figures regarding the previous issue of mothers of twins and triplets show that 330 mothers had twins at their first confinement ; 267 at their second ; 218 at their third ; 179 at their fourth ; 128 at

their fifth; 108 at their sixth; 52 at their seventh; 30 at their eighth; 22 at their ninth; 18 at their tenth; 10 at their eleventh; 4 at their twelfth; and 1 at her thirteenth.

Of the 11 cases of triplets registered during 1928, 4 were first confinements, 2 were third, and 1 each at the fourth, fifth, seventh, eighth and tenth.

12. *Interval between Marriage and First Birth.*—(i) *Interval and Sex of Children.* The following table shows the interval between marriage and first birth, distinguishing the sexes of the children. Twins and triplets are included, the eldest born only being enumerated :—

INTERVAL BETWEEN MARRIAGE AND FIRST BIRTH.—AUSTRALIA, 1928.

Interval.	Number of First Children.			Interval.	Number of First Children.		
	Males.	Females.	Total.		Males.	Females.	Total.
Under 1 month	189	205	394	2 years ..	1,920	1,814	3,734
1 month ..	280	229	509	3 " ..	934	910	1,844
2 months ..	410	367	777	4 " ..	557	478	1,035
3 " ..	589	512	1,101	5 " ..	330	322	652
4 " ..	813	739	1,552	6 " ..	190	175	365
5 " ..	1,063	978	2,041	7 " ..	142	134	276
6 " ..	1,462	1,346	2,808	8 " ..	120	86	206
7 " ..	1,137	1,122	2,259	9 " ..	68	52	120
8 " ..	887	756	1,643	10 " ..	32	35	67
9 " ..	1,656	1,543	3,199	11 " ..	18	24	42
10 " ..	1,367	1,255	2,622	12 " ..	27	37	64
11 " ..	954	980	1,934	13 " ..	18	25	43
12 " ..	954	897	1,851	14 " ..	13	13	26
13 " ..	688	663	1,351	15 " ..	10	7	17
14 " ..	609	574	1,183	16 " ..	6	7	13
15 " ..	535	500	1,035	17 " ..	1	2	3
16 " ..	438	414	852	18 " ..	3	3	6
17 " ..	426	404	830	19 " ..	4	3	7
18 " ..	376	314	690	20 " ..	1	1	2
19 " ..	291	243	534	21 " ..	4	..	4
20 " ..	240	254	494	22 " ..	..	1	1
21 " ..	243	213	456	23 " ..	1	..	1
22 " ..	218	202	420				
23 " ..	199	173	372	Total ..	20,423	19,012	39,435

The masculinity of first births was 3.58 as compared with 3.15 for total births.

(ii) *Ages of Mothers and Interval.* The previous issue of mothers of ex-nuptial children is not recorded, but for the purposes of the following table all ex-nuptial births have been assumed to be first births. The table shows the ages of mothers in the cases of ex-nuptial first births, of nuptial first births occurring less than nine months after marriage, and of nuptial first births occurring nine months or more after marriage. A comparison of the combined total of the first two columns with the total of nuptial children born nine months or more after marriage shows that for all ages the ratio was about 2 to 3. At all ages up to and including 21, however, there was a great preponderance of ex-nuptial births and of births following on ante-nuptial conception. It must, of course, be understood that a certain number of premature births is necessarily included among the births which occurred less than nine months after marriage, but information in connexion therewith is not available.

AGES OF MOTHERS AND INTERVAL BETWEEN MARRIAGE AND FIRST BIRTH, ETC.—AUSTRALIA, 1928.

Age of Mother at Birth of Child.	Ex-nuptial Births.	Nuptial Births less than nine months after Marriage.	Total of two preceding columns.	Nuptial First Births nine months after Marriage and later.	Total Nuptial First Births.	Nuptial First Births and Ex-nuptial Births.
13 years ..	6	..	6	..	..	6
14 ..	23	3	26	..	3	26
15 ..	96	40	136	4	44	140
16 ..	231	256	487	29	285	516
17 ..	423	706	1,129	156	862	1,285
18 ..	522	1,402	1,924	451	1,853	2,375
19 ..	614	1,624	2,238	799	2,423	3,037
20 ..	602	1,673	2,275	1,186	2,859	3,461
21 ..	475	1,617	2,092	1,637	3,254	3,729
22 ..	395	1,214	1,609	2,176	3,390	3,785
23 ..	355	1,016	1,371	2,336	3,352	3,707
24 ..	276	728	1,004	2,323	3,051	3,327
25 ..	237	585	822	2,262	2,847	3,084
26 ..	204	449	653	2,088	2,537	2,741
27 ..	193	373	566	1,914	2,287	2,480
28 ..	190	302	492	1,792	2,094	2,284
29 ..	154	215	369	1,314	1,529	1,683
30 ..	165	163	328	1,089	1,252	1,417
31 ..	109	123	232	853	976	1,085
32 ..	128	125	253	797	922	1,050
33 ..	117	101	218	585	686	803
34 ..	100	72	172	587	659	759
35 ..	113	69	182	473	542	655
36 ..	82	58	140	368	426	508
37 ..	105	36	141	304	340	445
38 ..	87	29	116	269	298	385
39 ..	75	37	112	200	237	312
40 ..	59	24	83	132	156	215
41 ..	30	13	43	74	87	117
42 ..	48	12	60	65	77	125
43 ..	21	7	28	39	46	67
44 ..	16	4	20	30	34	50
45 ..	13	4	17	13	17	30
46 ..	6	..	6	4	4	10
47 ..	1	4	5	..	4	5
48 ..	2	..	2	1	1	3
49 ..	1	..	1	..	..	1
55 ..	1	..	1	1	1	2
Unspecified ..	7	..	7	..	..	7
Total ..	6,282	13,084	19,366	26,351	39,435	45,717

13. Interval between Birth and Registration of Birth.—Information was obtained for the years 1911 to 1921 regarding the period which elapsed between birth and registration. A detailed table giving the results for 1921 is contained in Demography Bulletin No. 39, issued by this Bureau. The law relating to maternity allowances has tended to accelerate the registration of births; and during the year under review it was found that approximately 35 per cent. were registered in the first week.

Since the granting of the maternity allowance the weighted average interval between the dates of birth and registration has been found to be about 13 days for all children.

§ 2. Marriages.

1. **Marriages, 1924 to 1928.**—The number of marriages registered in Australia during 1928 was 48,593, giving a rate of 7.73 per 1,000 of the mean population for the year. The numbers for the years 1924 to 1928 are given hereunder :—

MARRIAGES, 1924 TO 1928.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	North. Terr.	Fed. Cap. Terr.	Australia.
1924 ..	18,072	13,296	6,234	4,121	2,596	1,529	17	4	45,869
1925 ..	18,522	13,370	6,471	4,255	2,746	1,504	20	11	46,899
1926 ..	19,219	13,405	6,428	4,503	2,844	1,435	14	17	47,865
1927 ..	20,052	13,608	6,277	4,501	3,108	1,432	26	29	49,033
1928 ..	20,076	13,186	6,322	4,146	3,309	1,502	23	29	48,593

2. **Marriage Rates, 1924 to 1928.**—The number of marriages registered per 1,000 of mean population is given in the following table for the same period :—

CRUDE MARRIAGE RATES (a), 1924 TO 1928.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	North. Terr.	Fed. Cap. Terr.	Australia.
1924 ..	8.11	8.10	7.55	7.78	7.22	7.12	4.72	1.04	7.90
1925 ..	8.14	8.00	7.60	7.82	7.46	7.05	5.43	2.33	7.91
1926 ..	8.28	7.90	7.34	8.06	7.58	6.79	3.72	2.78	7.92
1927 ..	8.45	7.88	7.04	7.88	8.07	6.82	6.14	3.95	7.95
1928 ..	8.28	7.53	6.95	7.18	8.29	7.09	5.47	3.60	7.73

(a) Number of marriages (not persons married) per 1,000 of mean annual population.

As in some international tabulations the marriage rates are calculated per 1,000 of the unmarried population of 15 years and over, the corresponding rates have been worked out for Australia for the last four Census periods for which the particulars are available. The figures comprise in each case the Census year with the year immediately preceding and the year immediately following, and are as follows :—Years 1880–82, 48.98 ; years 1890–92, 45.74 ; years 1900–02, 42.14 ; years 1910–12, 50.44 ; and years 1920–22, 56.02. These rates refer, of course, to persons married and not to marriages, as is the case in the preceding table.

3. **Marriage Rates in Various Countries.**—The following table shows the marriage rate for Australia in comparison with various other countries :—

CRUDE MARRIAGE RATES (a).—VARIOUS COUNTRIES.

Country.	Year.	Crude Marriage Rate.	Country.	Year.	Crude Marriage Rate.
Soviet Republics ..	1926	10.6	New Zealand ..	1928	7.6
United States (b) ..	1926	10.2	Denmark ..	1927	7.6
Rumania ..	1927	9.8	Spain ..	1928	7.6
Poland ..	1928	9.8	Victoria ..	1928	7.5
Czecho-Slovakia ..	1928	9.3	Switzerland ..	1928	7.5
Prussia ..	1928	9.3	Austria ..	1927	7.3
Germany ..	1928	9.2	Finland ..	1927	7.3
Hungary ..	1928	9.1	South Australia ..	1928	7.2
Belgium ..	1927	9.1	Quebec (Canada) ..	1928	7.2
New South Wales ..	1928	8.3	Tasmania ..	1928	7.1
France ..	1928	8.3	Bulgaria ..	1927	7.1
Western Australia ..	1928	8.3	Queensland ..	1928	7.0
Chile ..	1927	8.3	Italy ..	1928	7.0
Ontario (Canada) ..	1928	8.0	Scotland ..	1928	6.7
Japan ..	1927	8.0	Sweden ..	1928	6.7
Union of South Africa (c)	1927	9.1	Ceylon ..	1928	6.1
Australia ..	1928	7.7	Norway ..	1928	6.0
England and Wales ..	1928	7.7	Uruguay ..	1927	5.9
Netherlands ..	1928	7.7	Northern Ireland ..	1927	5.7
Canada ..	1928	7.7	Irish Free State ..	1927	4.5
Great Britain and Northern Ireland ..	1927	7.7	Jamaica ..	1925	4.1

(a) Number of marriages per 1,000 of mean population.

(b) Registration area.

(c) White population only.

4. Ages and Conjugal Condition at Marriage.—(i) *General.* The ages at marriage of bridegrooms and brides will be found in "Australian Demography," Bulletin No. 46. A summary in age groups is given in the table hereunder, which also shows the previous conjugal condition of the contracting parties. There were 2,815 males who were less than twenty-one years of age married during 1928, while the corresponding number of females was 11,546. At the other extreme there were 45 men of sixty-five years and upwards, who described themselves as bachelors, and 12 spinsters of corresponding age.

AGES AND CONJUGAL CONDITION OF PERSONS MARRIED.—AUSTRALIA, 1928.

Ages at Marriage.	Bridegrooms.				Brides.			
	Bachelors.	Widowers.	Divorced.	Total.	Spinsters.	Widows.	Divorced.	Total.
Under 20	1,403	..	..	1,403	8,044	3	..	8,047
20-24 years	15,972	23	6	16,001	20,744	61	60	20,865
25-29 "	15,797	164	87	16,048	10,449	197	213	10,859
30-34 "	6,368	315	190	6,873	3,536	296	250	4,082
35-39 "	2,848	463	230	3,541	1,570	437	208	2,215
40-44 "	1,276	431	163	1,875	588	370	111	1,069
45-49 "	639	377	93	1,109	297	315	68	680
50-54 "	303	266	44	613	129	177	23	329
55-59 "	173	278	29	480	62	134	14	210
60-64 "	68	221	14	303	34	86	7	127
65 years and over ..	45	292	10	347	12	98	..	110
Unspecified	..	..	..	..	..	..	..	..
Total ..	44,892	2,830	871	48,593	45,465	2,174	954	48,593

(ii) *Relative Ages, Bridegrooms and Brides.* The relative ages of bridegrooms and brides are shown for single years in "Australian Demography," Bulletin No. 46; a condensation into age-groups of five years is given below:—

RELATIVE AGES OF PERSONS MARRIED.—AUSTRALIA, 1928.

Ages.	Total Bride- grooms.	Ages of Brides.								
		Under 15.	15 to 19.	20 to 24.	25 to 29.	30 to 34.	35 to 39.	40 to 44.	45 and upwards.	Not stated.
<i>Ages of Bridegrooms.</i>										
Under 20 years ..	1,403	6	1,055	319	19	2	2			
20 to 24 ..	18,001	8	4,724	9,500	1,593	195	29	8	4	
25 to 29 ..	16,048	4	1,699	8,069	5,094	952	191	28	11	
30 to 34 ..	6,873		378	2,080	2,580	1,306	416	83	30	
35 to 39 ..	3,541		109	587	1,041	915	641	165	85	
40 to 44 ..	1,875	1	40	190	348	425	438	299	139	
45 to 49 ..	1,109		13	73	128	195	265	209	226	
50 to 54 ..	613		5	25	31	93	117	119	223	
55 to 59 ..	480		4	14	21	36	62	76	267	
60 to 64 ..	303		1	4	6	14	35	52	191	
65 years and over ..	347			4		9	19	30	282	
Not stated ..										
Total Brides ..	48,593	19	8,028	20,865	10,859	4,082	2,215	1,069	1,456	

(iii) *Average Ages, Bridegrooms and Brides.* The age at marriage of brides has declined slightly during recent years to an average of about 25 years. The figures for the five years are:—1924, 25.46 years; 1925, 25.45 years; 1926, 25.34; 1927, 25.22; and 1928, 25.17. For the five years 1907–11 the average age was 25.70 years, compared with 25.92 years for the five years 1912–16, 26.07 years for the five years 1917–21, and 25.33 years for the five years 1924–28. The average age of bridegrooms in 1924 was 28.99 years; in 1925, 28.94 years; in 1926, 28.82 years; in 1927, 28.69; and in 1928, 28.68. It follows, therefore, that brides are generally speaking three and one-half years younger than bridegrooms.

5. *Previous Conjugal Condition.*—The number of bachelors and spinsters, widowed and divorced persons, who were married during the year 1928 has already been given. The following table shows the conjugal condition of the contracting parties:—

PREVIOUS CONJUGAL CONDITION OF PERSONS MARRIED.—AUSTRALIA, 1928.

Conjugal Condition.	Total Bridegrooms.	Brides.		
		Spinsters.	Widows.	Divorced.
Bridegrooms				
{ Bachelors ..	44,892	42,977	1,229	686
{ Widowers ..	2,830	1,814	832	184
{ Divorced ..	871	674	113	84
Total Brides ..	48,593	45,465	2,174	954

6. *Birthplaces of Persons Married.*—The following table shows the birthplaces of persons who were married in 1928. In "Australian Demography," Bulletin No. 46, the relative birthplaces of bridegrooms and brides will be found tabulated in full detail.

BIRTHPLACES OF PERSONS MARRIED.—AUSTRALIA, 1928.

Birthplaces.	Bridegrooms.	Brides.	Birthplaces.	Bridegrooms.	Brides.
AUSTRALASIA—			ASIA—		
New South Wales ..	15,483	16,612	British India and		
Victoria ..	11,436	11,857	Ceylon ..	76	35
Queensland ..	4,948	5,339	China ..	24	14
South Australia ..	3,642	3,782	Japan ..	2	1
Western Australia ..	1,939	2,389	Syria ..	28	19
Tasmania ..	1,964	1,999	Other Countries in		
Northern Territory ..	13	14	Asia ..	26	15
Federal Capital Territory ..	4	9			
New Zealand ..	560	429	AFRICA—		
			Union of South Africa	116	118
			Other African Countries ..	16	3
EUROPE—			AMERICA—		
England and Wales ..	5,218	3,861	Canada ..	37	27
Scotland ..	1,492	1,165	United States ..	94	43
Ireland ..	506	353	Other American Countries ..	15	10
Other British Possessions in Europe ..	72	31	POLYNESIA—		
Belgium ..	13	8	Fiji ..	17	12
Denmark ..	44	7	Other Polynesian Islands ..	20	25
Finland ..	22	24			
France ..	23	58	At Sea ..	15	8
Germany ..	139	42	Unspecified ..	7	11
Greece ..	73	126			
Italy ..	206	5			
Netherlands ..	13	4			
Norway ..	37	51			
Russia ..	69	2			
Spain ..	13	7			
Sweden ..	32	22			
Switzerland ..	48				
Other Countries in Europe ..	91	56	Total ..	48,593	48,593

7. Occupations and Ages of Bridegrooms.—A tabulation has been made of the occupations and ages of all males married in Australia, and the results for 1928 are published in detail in "Australian Demography," Bulletin No. 46. An abridgment of this tabulation is given in the following table. The average ages of the persons falling under the twenty-eight subdivisions were determined, and it appears that, apart from the "Indefinite class," which consists chiefly of persons who have retired from business and who are living on income from investments, and who may be expected to have reached a comparatively high age before attaining a position of financial independence, the average age ranges from 26.85 years for those employed on Roads and Tramways, to 31.42 years in the class engaged in pastoral pursuits. On the experience of 1928, the average ages at marriage of bridegrooms in the larger classes of occupations were as follows:—Professional, 29.68 years; Domestic, 29.75 years; Commercial, 28.90 years; Transport, 27.86 years; Industrial, 27.81 years; and Primary Producer, 30.38 years.

OCCUPATIONS AND AGES OF BRIDEGROOMS.—AUSTRALIA, 1928.

Ages at Marriage.	Professional.		Domestic.				Commercial.						Transport and Communication.			
	Government, Defence, and Law.	Others.	Board and Lodging.	Others.	Property and Finance.	Art, Mechanical, and Textile Products.	Food and Drinks.	Animal and Vegetable Substances.	Fuel, Light and Metals.	Merchants and Dealers.	Others.	Railways.	Roads and Trams.	Sea and Rivers.	Others.	
15 years	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..
16 "	..	1	..	..	..	..	1	..	..	..	..	..	..	..	1
17 "	1	1	..	..	..	1	4	..	..	..	..	..	..	..	1
18 "	1	6	1	10	1	3	16	..	..	..	..	13	31	2	3
19 "	3	10	6	20	2	4	43	..	..	..	12	23	28	7	7
20 "	9	25	3	20	4	8	60	5	1	222	93	41	123	11	16	
21 "	35	80	21	44	19	12	131	2	9	53	216	121	251	45	42	
22 "	59	86	30	33	19	26	154	9	2	67	277	121	242	44	52	
23 "	91	140	36	25	40	34	155	6	5	55	315	133	286	38	61	
24 "	90	174	29	40	58	25	133	6	6	72	418	136	283	43	57	
25 "	113	204	44	30	54	39	147	12	6	78	451	110	240	44	45	
26 "	103	203	29	24	59	26	118	11	4	82	416	134	205	44	38	
27 "	92	179	37	25	59	29	101	4	9	64	385	102	205	44	50	
28 "	104	155	35	15	72	27	111	18	10	66	325	88	182	57	28	
29 "	92	102	29	18	36	22	66	7	4	54	250	63	127	33	46	
30 "	64	82	21	19	38	19	53	6	..	49	220	49	118	32	30	
31 "	36	79	19	16	29	16	45	4	6	36	178	45	79	28	24	
32 "	37	65	22	13	20	9	37	2	4	31	151	38	67	28	25	
33 "	46	49	15	8	28	9	35	5	3	29	114	25	64	19	19	
34 "	15	41	13	8	13	11	25	1	1	33	101	35	51	18	13	
35 to 39	85	133	60	32	50	39	90	10	7	100	379	109	156	82	52	
40 ,, 44	43	101	46	22	38	14	38	9	3	56	161	55	76	43	20	
45 ,, 49	38	45	25	5	16	9	32	5	4	29	103	29	55	24	13	
50 and over	53	84	23	18	34	14	43	7	4	57	116	58	29	33	13	
Not stated	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Total	1,210	2,045	539	447	690	396	1,638	130	89	1,054	4,742	1,539	2,963	722	656	
Average age—																
year 1928	29.90	29.56	31.10	28.12	30.48	29.36	27.39	30.74	30.06	30.36	28.76	28.36	26.85	30.59	28.28	

Ages at Marriage.	Manufacturing.								Primary Producers.				Indefinite.
	Art and Mechanical Productions.	Textiles and Fibrous Materials.	Food and Drinks.	Animal and Vegetable Substances.	Metals and Minerals.	Fuel, Light, and Energy.	Building and Construction.	Others.	Agri-cultural.	Pastoral.	Mining and Quarrying.	Others.	
15 years	..	..	..	..	..	..	1	..	..	..	..	..	..
16 "	..	..	1	..	..	..	3	..	..	..	..	..	..
17 "	..	..	5	..	..	..	29	..	..	..	..	..	..
18 "	28	11	13	..	20	6	128	..	1	..	..	5	..
19 "	51	18	15	16	49	8	238	..	3	..	..	16	..
20 "	99	35	46	19	43	20	440	..	101	18	..	23	..
21 "	224	62	86	48	101	40	895	..	242	58	..	63	..
22 "	248	62	78	56	84	49	916	..	307	77	..	79	..
23 "	309	73	84	41	117	70	274	1,003	357	107	..	93	..
24 "	276	60	79	45	119	73	239	928	389	99	..	72	..
25 "	267	53	68	39	92	72	235	858	373	123	..	64	..
26 "	238	72	76	39	88	65	206	786	365	119	..	57	..
27 "	202	47	54	42	67	53	164	748	361	121	..	57	..
28 "	156	35	39	24	67	53	123	660	303	110	..	43	..
29 "	113	36	34	22	55	29	116	473	301	92	..	24	..
30 "	112	25	22	17	47	26	106	357	261	84	..	22	..
31 "	85	17	18	11	31	18	101	278	217	75	..	27	..
32 "	65	15	14	10	29	18	76	280	172	58	..	21	..
33 "	59	15	10	8	21	11	59	200	168	50	..	14	..
34 "	54	11	10	8	17	14	48	205	182	65	..	15	..
35 to 39	163	55	43	40	92	32	189	737	542	178	..	52	..
40 ,, 44	80	21	29	15	33	14	110	336	306	93	..	37	..
45 ,, 49	50	13	15	8	20	6	64	244	162	56	..	26	..
50 and over	76	20	25	8	39	9	113	348	205	118	..	42	..
Not stated	..	..	..	..	..	..	..	..	..	..	..	..	..
Total	2,961	762	871	527	1,236	686	2,928	11,173	5,450	1,724	889	393	133
Average age—													
year 1928	27.49	27.78	27.14	27.02	27.65	26.98	28.33	27.92	30.49	31.42	28.46	28.52	48.20

8. *Fertility of Marriages.*—The quotient obtained by division of the nuptial births registered, e.g., during the five years 1924 to 1928, by the number of marriages registered during the five years 1919 to 1923, i.e., the period antecedent by five years to the period of the births, has been called the "fertility of marriages." The quotient for this period is 2.81—in other words, the number of children to be expected from every marriage in Australia is about three. This method, while not absolutely accurate, generally furnishes results which agree fairly well with those found by more elaborate and careful investigation. For the following five-yearly periods the results were:—1916–20, 2.90; 1917–21, 2.91; 1918–22, 3.07; 1919–23, 3.25; 1920–24, 3.36; 1921–25, 3.25; 1922–26, 3.14; 1923–27, 2.79; and 1924–28, 2.81.

9. *Registration of Marriages.*—(i) *Marriages in each Denomination.* In all the States marriages may be celebrated either by ministers of religion whose names are registered for that purpose with the Registrar-General, or by certain civil officers—in most cases district registrars. Most of the marriages are celebrated by ministers of religion. The proportions so celebrated in 1928 were:—New South Wales, 93.79 per cent.; Victoria, 92.30 per cent.; Queensland, 96.01 per cent.; South Australia, 93.63 per cent.; Western Australia, 82.35 per cent.; and Tasmania, 93.87 per cent., the percentage for Australia being 92.89. The registered ministers in 1928 belong to more than forty different denominations, some of which, however, can hardly be regarded as having any valid existence. A number of these have been omitted from the tabulation and are bracketed under the heading "Other Christian." The figures for 1928 are shown in the following table:—

MARRIAGES IN EACH DENOMINATION.—AUSTRALIA, 1928.

Denomination.	N.S.W.	Vic.	Qld.	S.A.	W.A.	Tas.	Nor. Ter.	Fed. Cap. Ter.	Australia.
Church of England ..	8,496	3,763	1,976	1,017	1,186	614	5	10	17,067
Roman Catholic ..	4,076	2,592	1,426	501	555	196	4	9	9,359
Methodist ..	2,306	1,823	968	1,286	454	284	5	4	7,130
Presbyterian ..	2,735	2,297	993	202	275	100	..	4	6,606
Congregational ..	525	587	107	193	79	61	..	..	1,552
Baptist ..	282	531	169	200	47	74	..	2	1,305
Church of Christ ..	89	319	35	217	51	55	..	..	766
Lutheran ..	32	59	155	201	4	..	..	..	451
Greek Catholic ..	27	13	9	4	10	..	..	..	63
Unitarian ..	1	2	..	3	..	..	..	..	6
Salvation Army ..	122	67	54	33	24	8	..	..	308
Seventh-Day Adventist ..	41	10	12	7	10	2	..	..	82
Other Christian ..	55	63	165	16	12	16	6	..	333
Hebrew ..	41	45	1	2	18	..	..	..	107
Registrar's Office ..	1,247	1,015	252	264	584	92	3	..	3,457
Unspecified ..	1	..	..	..	..	..	..	..	1
Total ..	20,076	13,186	6,322	4,146	3,309	1,502	23	29	48,593

(ii) *Number and Percentage in each Denomination, 1924 to 1928.* The number of marriages according to denomination, and the percentages on total marriages, are shown in the next table.

MARRIAGES IN EACH DENOMINATION.—AUSTRALIA, 1924 TO 1928.

Denomination.		1924.	1925.	1926.	1927.	1928.
Church of England	Total	16,229	16,361	16,776	17,230	17,067
	%	35.38	34.89	35.05	35.14	35.12
Roman Catholic	Total	8,714	8,911	9,223	9,610	9,359
	%	19.00	19.00	19.27	19.60	19.26
Methodist	Total	6,919	7,104	7,001	7,230	7,130
	%	15.09	15.15	14.63	14.74	14.68
Presbyterian	Total	6,391	6,612	6,566	6,745	6,606
	%	13.93	14.10	13.72	13.76	13.59
Congregational	Total	1,697	1,741	1,816	1,532	1,552
	%	3.70	3.71	3.79	3.12	3.19
Baptist	Total	1,327	1,383	1,331	1,360	1,305
	%	2.89	2.95	2.78	2.77	2.69
Church of Christ	Total	740	770	792	794	766
	%	1.61	1.64	1.65	1.62	1.58
Lutheran	Total	405	415	440	442	451
	%	0.88	0.88	0.92	0.92	0.93
Greek Catholic	Total	59	44	59	58	63
	%	0.13	0.09	0.12	0.12	0.13
Unitarian	Total	19	95	204	16	6
	%	0.04	0.20	0.43	0.03	0.01
Salvation Army	Total	237	271	254	243	308
	%	0.52	0.58	0.53	0.49	0.63
Seventh-Day Adventist	Total	67	108	77	69	82
	%	0.15	0.23	0.16	0.14	0.17
Other Christian	Total	321	294	272	315	333
	%	0.70	0.63	0.57	0.64	0.69
Hebrew	Total	130	97	120	132	107
	%	0.28	0.21	0.25	0.27	0.22
Registrar's Office	Total	2,614	2,693	2,934	3,257	3,457
	%	5.70	5.74	6.13	6.64	7.11
Unspecified	Total	..	..	..	..	1
	%
Total	..	45,869	46,899	47,865	49,033	48,593

§ 3. Deaths.

1. Male and Female Deaths, 1924 to 1928.—The two following tables show the number of deaths registered in each year from 1924 to 1928 inclusive. The annual average of male deaths during the period was 32,125, and of female deaths 24,707, the details being as follow :—

MALE DEATHS, 1924 TO 1928.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	North. Terr.	Fed. Cap. Terr.	Australia.
1924	11,887	8,863	4,440	2,644	2,039	1,177	42	11	31,103
1925	11,944	8,582	4,581	2,729	2,157	1,081	51	9	31,134
1926	12,670	8,765	5,022	2,676	2,131	1,040	57	26	32,387
1927	12,967	8,982	4,846	2,773	2,115	1,074	69	32	32,858
1928	12,762	9,384	4,715	2,831	2,229	1,128	65	31	33,145
Rate(a), 1928	10.32	10.78	9.80	9.48	10.31	10.73	21.99	6.67	10.30

(a) Number of deaths per 1,000 of mean male population.

FEMALE DEATHS, 1924 TO 1928.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	North-Terr.	Fed. Cap. Terr.	Australia.
1924 ..	8,948	7,640	2,887	2,226	1,224	946	2	4	23,877
1925 ..	8,878	7,255	2,964	2,250	1,158	915	11	3	23,434
1926 ..	9,489	7,570	3,192	2,201	1,219	872	7	15	24,565
1927 ..	9,782	7,791	3,232	2,355	1,278	959	7	20	25,424
1928 ..	9,895	8,324	3,261	2,316	1,411	1,004	6	16	26,233
Rate (a), 1928	8.33	9.45	7.62	8.31	7.71	9.40	4.80	4.69	8.55

(a) Number of deaths per 1,000 of mean female population.

2. **Male and Female Death Rates, 1928.**—The crude male and female death rates given in the last lines of the preceding tables relate to the year 1928 only. Victoria had the highest and South Australia the lowest rate for males, and for the females Victoria also had the highest and Queensland the lowest rate. The rates for the two Territories are based on very small numbers, and comparisons with the States would be misleading.

Owing to differences in age constitution in the six States, the crude rates are not, however, strictly comparable. A more satisfactory rate is furnished by the "Index of Mortality" (see sub-para. 5). The death rates for males and females in each State in five-year age groups for the three years 1920 to 1922, that is, for the Census year and for the year immediately preceding and following, are shown in sub-section 9 hereafter.

The rates for the five years 1924 to 1928 averaged 10.4 per 1,000 for males, and 8.4 per 1,000 for females.

MALE AND FEMALE DEATH RATES (a).—AUSTRALIA, 1924 TO 1928.

Year.	1924.	1925.	1926.	1927.	1928.
Male rate	10.50	10.28	10.48	10.41	10.30
Female rate	8.39	8.07	3.30	8.43	8.55
Crude total rate	9.47	9.20	9.42	9.45	9.45

(a) Number of deaths per 1,000 of mean population.

3. **Total Deaths, 1924 to 1928.**—The total number of deaths during each of the five years 1924 to 1928 is given below:—

TOTAL DEATHS, 1924 TO 1928.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	North-Terr.	Fed. Cap. Terr.	Australia.
1924 ..	20,835	16,503	7,327	4,870	3,263	2,123	44	15	54,980
1925 ..	20,822	15,837	7,545	4,979	3,315	1,996	62	12	54,568
1926 ..	22,159	16,335	8,214	4,877	3,350	1,912	64	41	56,952
1927 ..	22,749	16,773	8,078	5,128	3,393	2,033	76	52	58,282
1928 ..	22,657	17,708	7,976	5,147	3,640	2,132	71	47	59,378

4. **Crude Death Rates, 1924 to 1928.**—The crude death rates for the five years 1924 to 1928 are given in the next table.

CRUDE DEATH RATES (a), 1924 TO 1928.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	North. Terr.	Fed. Cap. Terr.	Aus- tralia.
1924 ..	9.35	10.05	8.88	9.19	9.08	9.89	12.21	3.90	9.47
1925 ..	9.16	9.47	8.86	9.15	9.00	9.35	16.84	2.54	9.20
1926 ..	9.55	9.63	9.39	8.73	8.93	9.05	17.00	6.71	9.42
1927 ..	9.59	9.71	9.06	8.98	8.81	9.68	17.95	7.08	9.45
1928 ..	9.34	10.11	8.77	8.92	9.11	10.06	16.88	5.84	9.45

(a) Number of deaths per 1,000 of annual mean population.

5. **Index of Mortality.**—(i) *General.* The death rates so far quoted are crude rates, i.e., they simply show the number of deaths per thousand of mean population, without taking the age constitution into consideration. Other conditions being equal, however, the death rate of a country will be lower if it contains a large percentage of young people (not infants). In order to obtain a comparison of the mortality of various countries on a uniform basis so far as sex and age constitution is concerned, the standard population compiled by the International Institute of Statistics, according to age distribution (eleven age-groups) of the population of nineteen European countries at their censuses nearest to the year 1900 is used in the computation of the "Index of Mortality" as distinguished from the crude death rate.

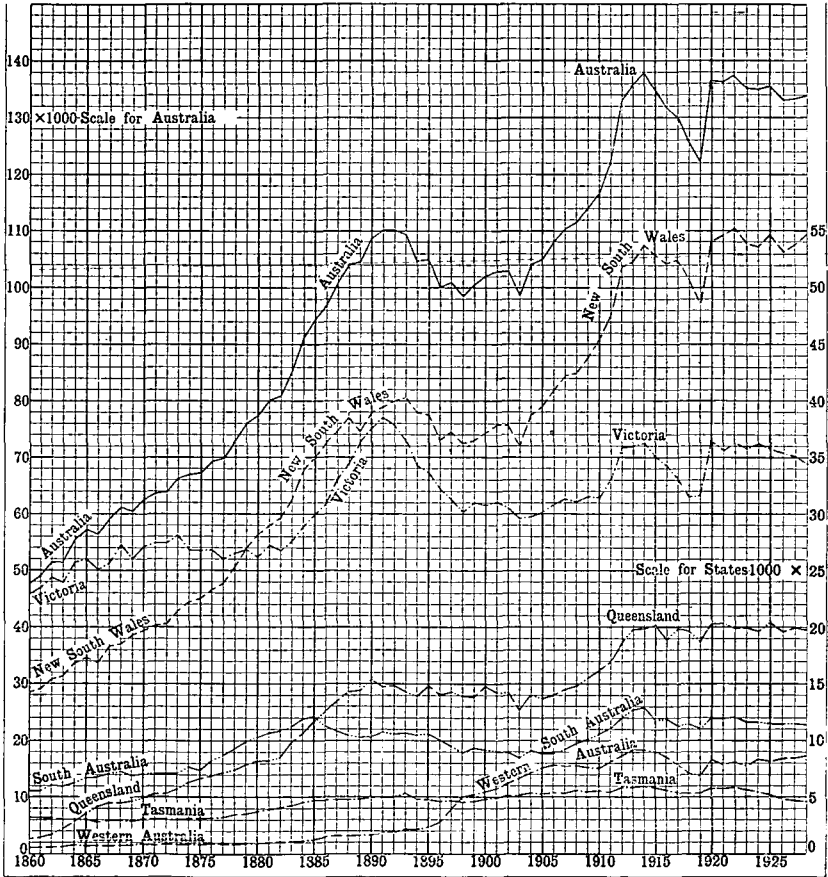
(ii) *Sex and Age-Groups.* The distribution per 10,000 according to sex and age in the eleven age-groups used in computation of the "Index of Mortality" is given in the following table:—

Age Group.	Males.	Females.
Under 1 year	132	130
1 to 4 years	469	467
5 ,, 14 ,,	1,037	1,032
15 ,, 24 ,,	905	927
25 ,, 34 ,,	725	755
35 ,, 44 ,,	593	613
45 ,, 54 ,,	454	485
55 ,, 64 ,,	337	371
65 ,, 74 ,,	187	218
75 ,, 84 ,,	64	81
85 years and over	7	11
Total	4,910	5,090

In computing an index the death rate is ascertained for each age-group for each sex and multiplied by the corresponding number in the above table, and the sum of the products so obtained is divided by 10,000. The result represents the "Index of Mortality."

(iii) *Comparison of Rates.* For the year 1928 on the basis of the crude rates there is a range of 1.34 per 1,000 persons between the lowest rate in Queensland (8.77) and the highest rate in Victoria (10.11), whereas the standardized rates increase the range to

BIRTHS—1860 TO 1928.

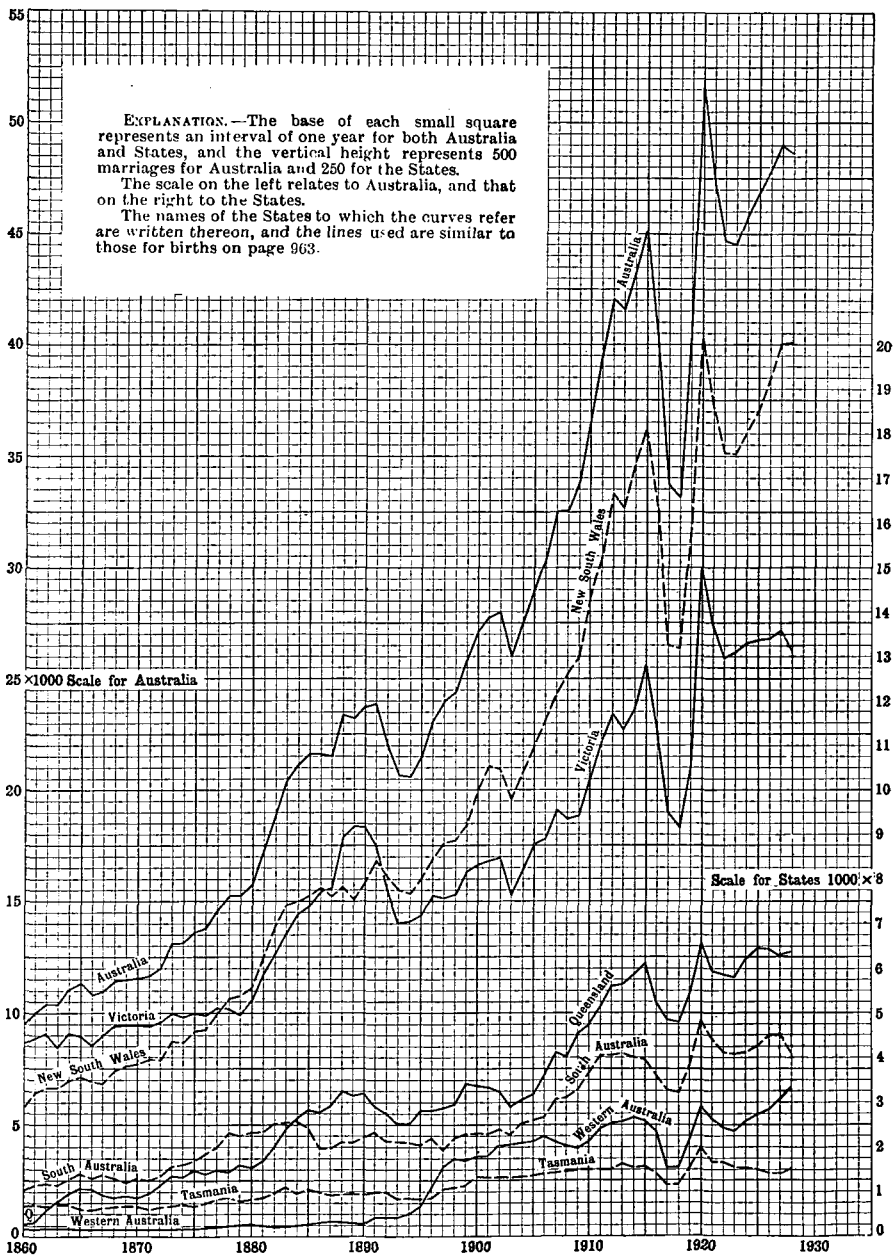


EXPLANATION.—The base of each small square represents an interval of one year for both Australia and States, and the vertical height represents 2,000 persons for Australia and 1,000 for the States.

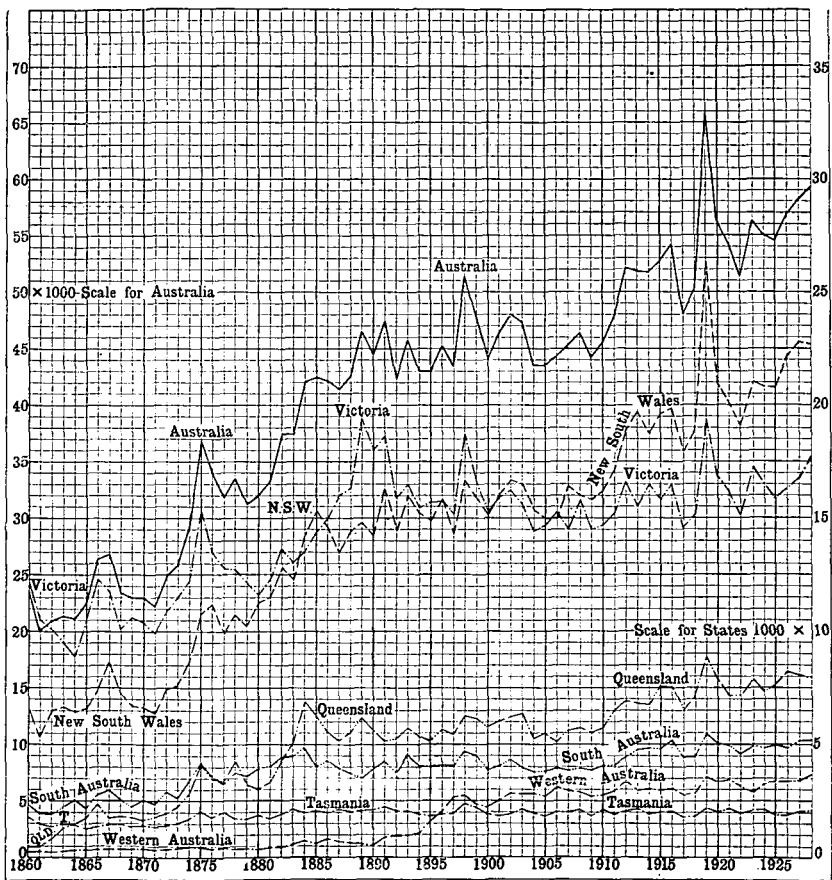
The scale on the left relates to Australia, and that on the right to the States.

The names of the States to which the curves refer are written thereon, and the characters of the lines used are as follows:—Australia, —————; New South Wales, - - - - -; Victoria,; Queensland, - · - · - ·; South Australia, - - - - -; Western Australia, - - - - -; Tasmania, - · - · - ·.

MARRIAGES, 1860 TO 1928.



DEATHS—1860 TO 1928.

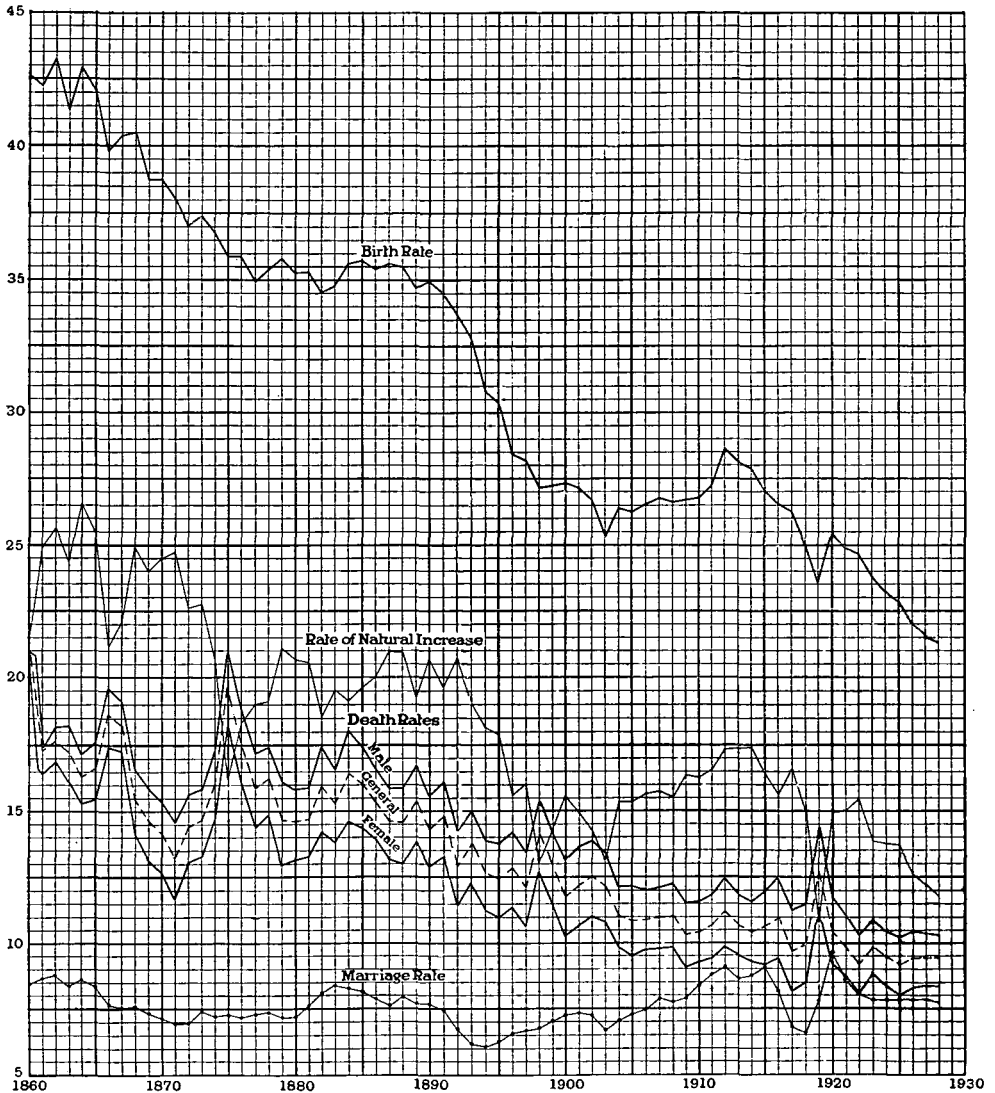


EXPLANATION.—The base of each small square represents an interval of one year for both Australia and States, and the vertical height represents 1,000 persons for Australia and 500 for the States.

The scale on the left relates to Australia, and that on the right to the States.

The names of the States to which the curves refer are written thereon, and the lines used are similar to those for births on page 963.

RATES—BIRTH, NATURAL INCREASE, DEATH (MALE, GENERAL AND FEMALE) AND MARRIAGE—
AUSTRALIA, 1860 TO 1928.



EXPLANATION.—The base of each small square represents one year's interval, and the vertical height one half per thousand of the population—the basic line being five per thousand of the population.

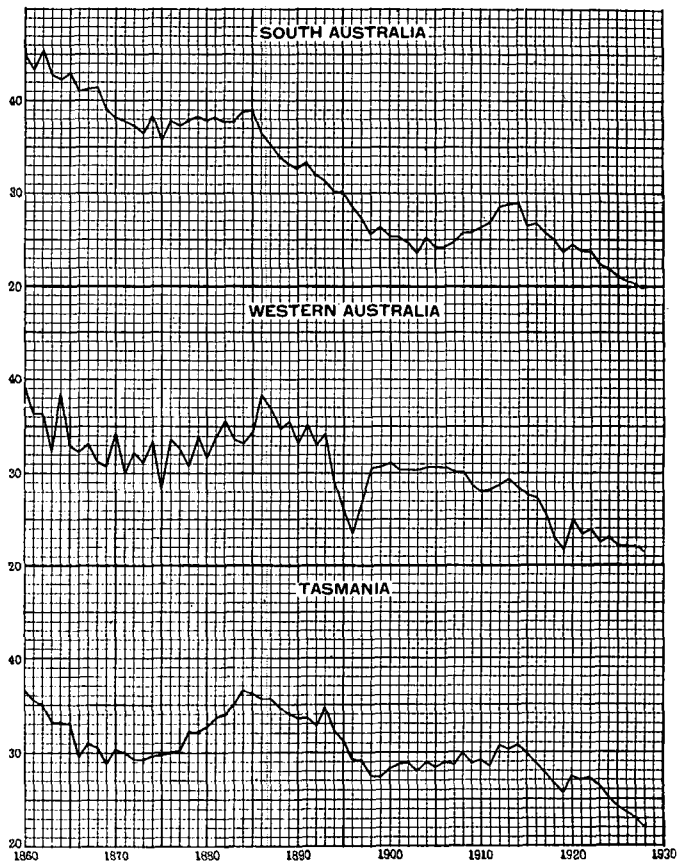
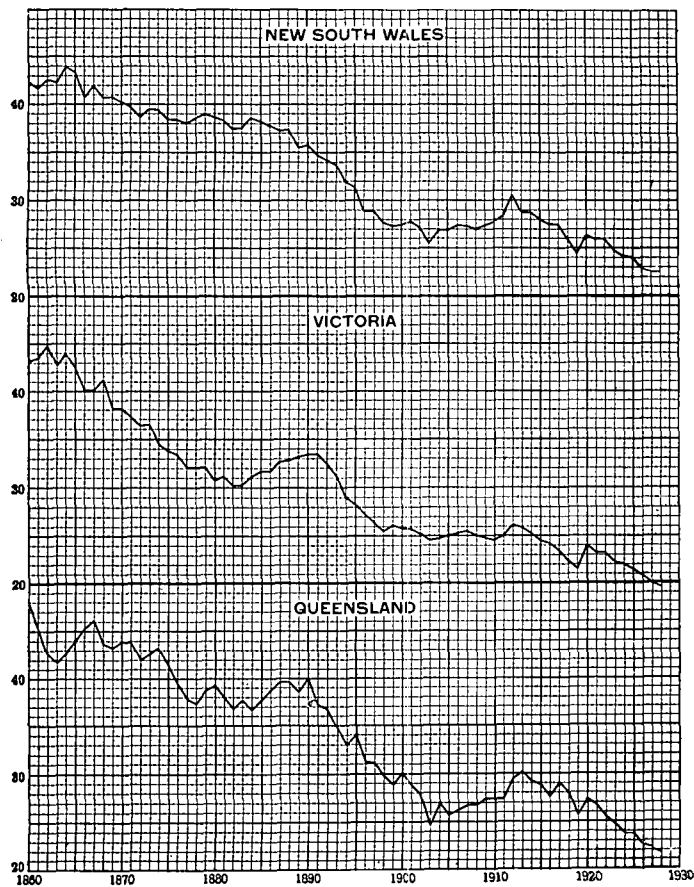
STATE BIRTH-RATE GRAPHS. (See page 967.)

EXPLANATION.—The base of each small square represents one year's interval, and the vertical height one birth per thousand of the population—the basic line for each State being twenty per thousand of the population.

STATE DEATH-RATE GRAPHS. (See page 968.)

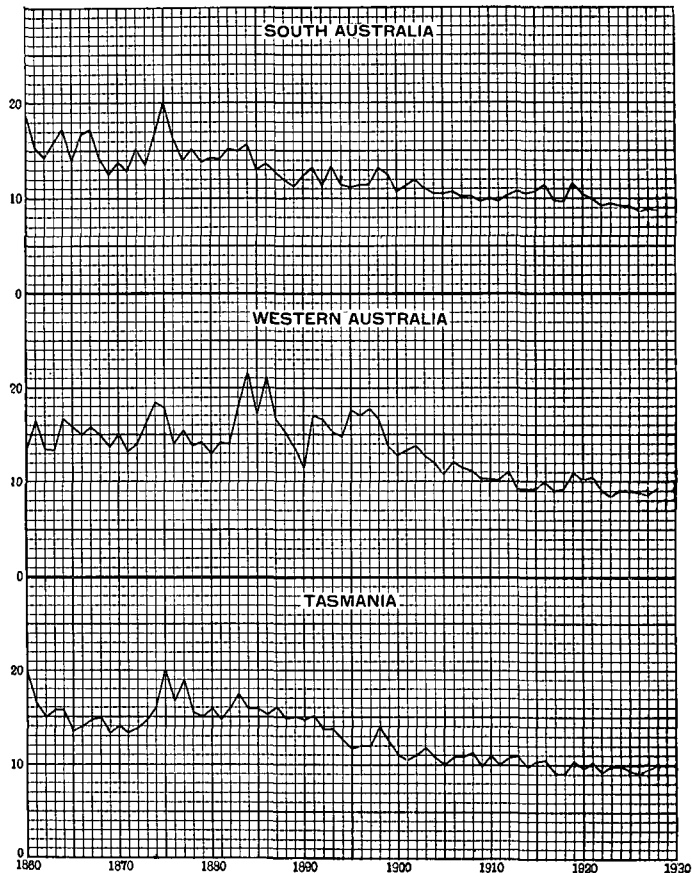
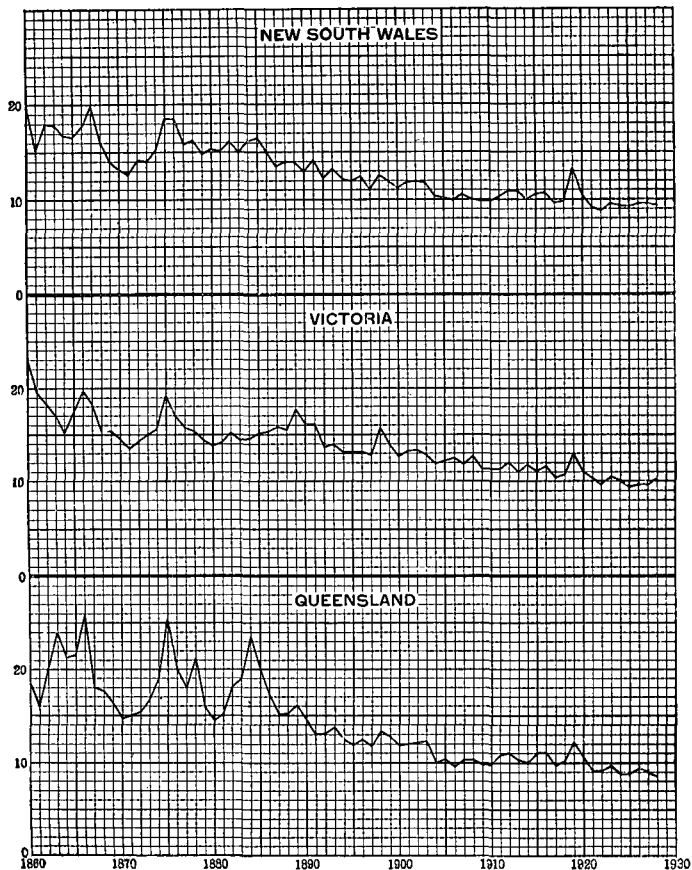
EXPLANATION.—The base of each small square represents one year's interval, and the vertical height one death per thousand of the population. The zero for each State is shown by a thickened line.

BIRTH RATES—STATES, 1860-1928.



For explanation of above graph see page 966.

DEATH RATES—STATES, 1860-1928.



For explanation of above graph see page 966.

1.41 per 1,000, i.e., between 9.30 in South Australia and 10.71 in Western Australia. In its application to the figures for 1928 the process of adjustment altered the relative positions of all States with the exception of Queensland from those determined by the crude rates. The principal changes were that Western Australia from first place fell to the lowest position, to the advantage of Victoria, which was raised from the lowest position on the basis of crude rates to the second position on the standard basis.

(iv) *Years 1924 to 1928.* For the purposes of comparison with previous years the index of mortality, based on the method alluded to in (ii) *ante*, is shown in the following table for each of the five years 1924 to 1928 :—

INDEX OF MORTALITY, 1924 TO 1928.

Year.	States.						Territories.		Aus- tralia.
	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Northern.	Federal Capital.	
1924 ..	10.31	10.31	9.90	9.50	10.82	10.43	9.56	4.43	10.20
1925 ..	10.13	9.74	9.94	9.43	10.67	9.94	15.52	2.58	9.93
1926 ..	10.62	9.91	10.47	9.02	10.63	9.70	14.81	7.83	10.20
1927 ..	10.64	10.02	10.20	9.30	10.71	10.43	12.58	8.45	10.43
1928 ..	10.40	10.46	9.92	9.21	11.14	10.76	11.15	6.06	10.44

6. *Death Rates of Various Countries.*—The following table gives particulars of the crude death rates of various countries for the latest available years :—

DEATH RATES (a).—VARIOUS COUNTRIES.

Country.	Year.	Crude Death Rate.	Country.	Year.	Crude Death Rate.
New Zealand ..	1928	8.5	Belgium ..	1928	12.8
Queensland ..	1928	8.8	New York State ..	1928	13.0
South Australia ..	1928	8.9	Scotland ..	1928	13.3
Western Australia ..	1928	9.1	Quebec (Canada) ..	1928	13.8
New South Wales ..	1928	9.3	Irish Free State ..	1928	14.1
Australia ...	1928	9.5	Northern Ireland ..	1928	14.4
Netherlands ..	1928	9.6	Austria ..	1928	14.4
Victoria ..	1928	10.1	Finland ..	1927	14.5
Tasmania ..	1928	10.1	Czecho-Slovakia ..	1928	15.1
Union of South Africa (Whites) ..	1928	10.2	Italy ..	1928	15.6
Norway ..	1928	10.6	France ..	1928	16.5
Denmark ..	1928	11.0	Poland ..	1928	16.7
Canada (including Quebec)	1928	11.3	Bulgaria ..	1927	17.2
Uruguay ..	1927	11.4	Hungary ..	1928	17.2
Ontario (Canada) ..	1928	11.5	Spain ..	1928	18.4
Prussia ..	1928	11.5	Japan ..	1927	19.8
Germany ..	1928	11.6	Ceylon ..	1926	20.3
England and Wales ..	1928	11.7	Soviet Republics ..	1927	21.7
Switzerland ..	1928	12.0	Jamaica ..	1924	21.8
Sweden ..	1928	12.0	Rumania ..	1927	22.9
United States (b) ..	1928	12.1	Chile ..	1928	24.4
Great Britain and Northern Ireland ..	1927	12.5	Egypt ..	1927	32.0

(a) Number of deaths per 1,000 of mean population.

(b) Registration area.

7. **Infantile Deaths and Death Rate.**—(i) *Australia 1924 to 1928.* In the following table, which shows both the total number of deaths of children under one year and the rate per thousand live births since 1924, males and females are distinguished. The universal experience that during the first few years of life the higher death rate of male infants tends to counteract the excess of male births is confirmed by the fact that out of 344,796 male infants born from 1924 to 1928, 20,619 (59.80 per 1,000) died during their first year of life, while of 326,861 female infants only 15,907 (48.67 per 1,000) died during the first year.

INFANTILE DEATHS AND DEATH RATES.—AUSTRALIA, 1924 TO 1928.

Year.	Registered deaths under one year.			Rate of Infantile Mortality.(a)		
	Males.	Females.	Total.	Males.	Females.	Total.
1924	4,276	3,425	7,701	62.15	51.79	57.08
1925	4,089	3,162	7,251	58.80	47.73	53.40
1926	4,149	3,041	7,190	60.64	46.97	53.99
1927	4,102	3,181	7,283	59.55	49.08	54.47
1928	4,003	3,098	7,101	57.89	47.72	52.96

(a) Number of deaths under 1 year per 1,000 live births registered.

(ii) *States, 1924 to 1928.* For the States and Territories the rates of infantile mortality during the last five years were as follow :—

INFANTILE MORTALITY RATES (a), 1924 TO 1928.

Year.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	North-Terr.	Fed. Cap. Terr.	Australia.
1924 ..	58.93	61.32	51.30	51.33	49.87	54.99	35.09	48.78	57.08
1925 ..	54.95	56.98	45.21	46.09	56.57	55.19	30.77	106.38	53.40
1926 ..	57.61	55.68	50.65	44.33	49.27	47.61	68.49	53.33	53.99
1927 ..	54.94	56.05	54.45	53.43	45.86	52.97	102.94	142.85 ^b	54.47
1928 ..	54.77	55.63	45.54	47.51	48.14	63.95	60.24	83.33 ^b	52.96

(a) Number of deaths under 1 year per 1,000 live births registered. (b) Based on deaths of infants born in the Federal Capital Territory.

The deaths of infants under one year of age during 1928 numbered 7,101, the mortality rate being 52.96, which is lower than the average for the previous four years. Among the States in 1928, Queensland had the lowest and Tasmania the highest rate.

(iii) *Districts.* The total number of births, of deaths of children under one year of age, and the average rate of infantile mortality for 1928 are shown in the following table for each of the sixty-two districts for which the vital statistics have been tabulated. To afford a better indication of the geographical position of the districts, the name of a town situated in a fairly central part of each district has been added. The figures for the Territories and for Lord Howe Island are included for the sake of completeness, but are too small to be used in comparison with others. Remarkable variations are shown in the mortality rate for the various districts. The lowest rate was experienced in the Northern District (Broome) of Western Australia (21.74 per 1,000 births), and the highest in the Western Division (Broken Hill) of New South Wales (93.86 per 1,000 births).

INFANTILE MORTALITY.—STATE DISTRICTS, 1928.

States and Territories.	Districts.	Towns.	Total Births, 1928.	Total Deaths of Children under one year, 1928.	Average Infantile Mortality per 1,000 Births, 1928.
New South Wales ..	Metropolitan ..	Sydney ..	21,151	1,047	49.50
" ..	Balance of Cumberland ..	Farramatta ..	4,468	266	59.53
" ..	North Coast ..	Grafton ..	3,413	152	44.54
" ..	Hunter and Manning ..	Newcastle ..	7,071	393	55.58
" ..	South Coast ..	Nowra ..	2,121	95	44.79
" ..	Northern Tableland ..	Armidale ..	1,346	75	55.72
" ..	Central Tableland ..	Bathurst ..	3,173	190	59.85
" ..	Southern Tableland ..	Goulburn ..	1,358	80	58.91
" ..	North-Western Slope ..	Tamworth ..	1,537	90	58.56
" ..	Central-Western Slope ..	Dubbo ..	1,758	112	63.71
" ..	South-Western Slope ..	Temora ..	2,861	196	68.51
" ..	North-Central Plain ..	Moree ..	768	44	57.29
" ..	Central Plain ..	Coonambla ..	699	45	64.38
" ..	Riverina ..	Narrandera ..	1,945	109	56.04
" ..	Western Division ..	Broken Hill ..	1,140	107	93.86
" ..	Lord Howe Island ..	..	2	..	..
Victoria ..	Metropolitan ..	Melbourne ..	17,882	1,016	57.01
" ..	Central ..	Geelong ..	4,048	213	52.62
" ..	North-Central ..	Kyneton ..	1,027	55	53.55
" ..	Western ..	Hamilton ..	3,061	169	55.21
" ..	Wimmera ..	Horsham ..	1,296	63	48.61
" ..	Mallee ..	Mildura ..	1,815	104	57.30
" ..	Northern ..	Bendigo ..	2,932	181	61.73
" ..	North-Eastern ..	Beechworth ..	537	42	50.18
" ..	Gippsland ..	Sale ..	1,600	76	47.50
Queensland ..	Metropolitan ..	Brisbane ..	6,175	298	48.26
" ..	Moreton ..	Ipswich ..	1,833	61	33.28
" ..	Wide Bay ..	Maryborough ..	2,478	102	41.16
" ..	Port Curtis ..	Rockhampton ..	1,378	71	51.52
" ..	Edgecombe ..	Townsville ..	2,046	89	43.50
" ..	Rockingham ..	Cairns ..	1,507	70	46.45
" ..	York Peninsula ..	Cooktown ..	213	9	42.25
" ..	Carpentaria ..	Croydon ..	291	21	72.16
" ..	Central-Western ..	Winton ..	95	8	84.21
" ..	South-Western ..	Charleville ..	292	18	61.64
" ..	Central ..	Blackall ..	608	28	46.05
" ..	Maranoa ..	Roma ..	381	10	26.25
" ..	Downs ..	Toowoomba ..	2,486	116	46.66
South Australia ..	Metropolitan ..	Adelaide ..	5,948	292	49.09
" ..	Central ..	Gawler ..	2,286	102	44.62
" ..	Lower North ..	Redruth ..	1,510	70	46.36
" ..	Upper North ..	Port Augusta ..	510	21	41.18
" ..	South-Eastern ..	Mount Gambier ..	546	25	45.79
" ..	Western ..	Port Lincoln ..	608	32	52.63
Western Australia ..	Metropolitan ..	Perth ..	3,836	233	60.74
" ..	Northern Agricultural ..	Geraldton ..	1,615	58	35.91
" ..	South-Western ..	Katanning ..	2,596	102	39.29
" ..	Eastern Goldfields ..	Kalgoorlie ..	458	16	34.93
" ..	Northern Goldfields ..	Pilbara ..	108	9	83.33
" ..	North-Western ..	Roebourne ..	45	..	..
" ..	Northern ..	Broome ..	46	1	21.74
Tasmania ..	Metropolitan ..	Hobart ..	1,001	81	80.91
" ..	Northern Urban ..	Launceston ..	864	52	60.19
" ..	North-Western ..	Stanley ..	1,064	65	61.09
" ..	North-Eastern ..	Scottsdale ..	374	21	56.15
" ..	North Midland ..	Longford ..	154	9	58.44
" ..	Midland ..	Oatlands ..	199	9	45.23
" ..	South-Eastern ..	Sorell ..	206	6	29.13
" ..	Southern ..	New Norfolk ..	615	39	63.41
" ..	Western ..	Zechan ..	214	18	84.11
Northern Territory ..	..	Darwin ..	83	5	60.24
Federal Capital Territory ..	..	Canberra ..	120	a 10	a83.33

(a) Based on deaths of infants born in the Federal Capital Territory.

(iv) *Various Countries and Cities.* Compared with other countries, the States of Australia occupy a very favourable position, being surpassed by New Zealand and Norway only. Among cities, however, the best of the Australian cities, Brisbane, has the eighth place only, whereas New Zealand has three cities amongst the first five on the list presented on the next page. A study of the respective rates shows that a high birth rate is often, though not invariably, accompanied by a high infantile death rate.

INFANTILE MORTALITY RATES (a).—VARIOUS COUNTRIES.

Country	Year.	Rate of Infantile Mortality. (a)	Crude Birth Rate. (b)	Country.	Year.	Rate of Infantile Mortality. (a)	Crude Birth Rate. (b)
New Zealand ..	1928	36	19.6	France ..	1927	83	18.1
Queensland ..	1928	46	21.8	Denmark ..	1927	83	19.6
South Australia ..	1928	48	19.8	Scotland ..	1928	86	19.8
Western Australia ..	1928	48	21.8	Germany ..	1928	89	18.6
Norway ..	1927	51	17.8	Prussia ..	1928	89	18.6
Netherlands ..	1928	52	23.3	Canada (including Quebec) ..	1928	90	24.5
Australia ..	1928	53	21.3	Belgium ..	1927	92	18.4
Switzerland ..	1928	54	17.3	Uruguay ..	1926	93	25.4
New South Wales ..	1928	55	22.6	Finland ..	1927	97	22.8
Victoria ..	1928	56	19.7	Italy ..	1927	120	27.0
Sweden ..	1928	62	16.2	Austria ..	1926	123	19.1
Tasmania ..	1928	64	22.1	Quebec (Canada) ..	1928	124	31.6
New York State ..	1928	65	19.2	Spain ..	1927	127	28.6
England and Wales ..	1928	65	16.7	Japan ..	1927	142	33.6
United States (Registration Area) ..	1928	68	19.7	Czecho-Slovakia ..	1927	157	23.3
Irish Free State ..	1927	70	20.3	Bulgaria ..	1927	159	24.6
Union of South Africa (Whites) ..	1928	71	25.9	Ceylon ..	1928	177	40.0
Ontario (Canada) ..	1928	71	21.2	Hungary ..	1927	185	25.2
Great Britain and Northern Ireland ..	1927	72	17.1	Egypt ..	1927	221	50.6
Northern Ireland ..	1927	78	21.3	Rumania ..	1927	209	34.4
				Chile ..	1927	226	43.1

(a) Number of deaths under 1 year per 1,000 births registered. (b) Number of births per 1,000 of mean population.

INFANTILE MORTALITY RATES (a).—VARIOUS CITIES.

City.	Year.	Rate of Infantile Mortality. (a)	City.	Year.	Rate of Infantile Mortality. (a)
Oslo ..	1928	32	Leeds ..	1928	77
Wellington ..	1928	35	Hamburg ..	1928	78
Auckland ..	1928	41	Munich ..	1928	79
Amsterdam ..	1928	43	Antwerp ..	1928	80
Christchurch ..	1928	44	Hobart ..	1928	81
San Francisco ..	1928	46	Berlin ..	1928	83
Dunedin ..	1928	47	Buenos Aires ..	1926	83
Brisbane ..	1928	48	Dresden ..	1928	84
Sydney ..	1928	49	Johannesburg ..	1928	87
Adelaide ..	1928	49	Cologne ..	1928	88
Stockholm ..	1928	50	Manchester ..	1928	90
Melbourne ..	1928	57	Liverpool ..	1928	92
Copenhagen ..	1928	59	Dublin ..	1928	93
Cape Town ..	1928	60	Buda Pest ..	1928	94
Newark ..	1928	61	Aberdeen ..	1928	94
Perth ..	1928	61	Paris ..	1928	96
Chicago ..	1928	64	Leipzig ..	1928	99
Birmingham ..	1928	65	Breslau ..	1928	101
New York City ..	1928	66	Belfast ..	1928	103
Washington ..	1928	66	Glasgow ..	1928	107
Los Angeles ..	1928	66	Brussels ..	1924	108
London ..	1928	67	Prague ..	1924	110
Newcastle, N.S.W. ..	1928	70	Warsaw ..	1926	143
Philadelphia ..	1928	71	Montreal ..	1928	144
Toronto ..	1928	72	Sao Paulo ..	1927	167
Sheffield ..	1928	73	Colombo ..	1927	221
Edinburgh ..	1928	75	Madras ..	1927	230
Detroit ..	1928	77	Bombay ..	1928	311

(a) Number of deaths under 1 year per 1,000 births registered.

(v) *Causes of Deaths of Children under one Year.* The following table gives for twenty-six causes the ages of all children who died under one year of age. Particulars for males and females may be found in Bulletin No. 46 of "Australian Demography."

CAUSES OF DEATHS OF CHILDREN UNDER ONE YEAR.—AUSTRALIA, 1928.

Age at Death.	Measles.	Whooping Cough.	Diphtheria.	Erysipelas.	Meningococcal Meningitis.	Pulmonary Tuberculosis.	Tubercular Meningitis.	Tuberculosis, other forms.	Syphilis.	Meningitis.	Convulsions.	Acute Bronchitis.	Broncho-Pneumonia.
Under 1 week	..	1	..	..	..	..	..	..	10	1	36	4	14
1 week and under 2 weeks	..	1	1	..	..	..	..	..	4	1	12	3	5
2 weeks	3	1	..	..	..	..	..	..	2	1	1	3	20
3 " " " 1 month	2	4	..	..	..	..	..	..	2	1	4	4	14
1 month " 2 months	2	19	3	3	..	..	..	..	6	5	8	14	57
2 months " 3 " "	3	3	3	3	1	1	..	..	4	3	3	13	13
3 " " 4 " "	4	17	1	3	..	..	1	..	4	4	3	4	32
4 " " 5 " "	3	16	1	..	1	1	..	..	4	5	3	6	39
5 " " 6 " "	3	7	1	..	3	..	..	..	4	3	3	3	30
6 " " 7 " "	1	12	3	..	1	1	1	..	..	6	2	4	24
7 " " 8 " "	1	12	3	1	..	3	2	1	1	14	4	4	26
8 " " 9 " "	6	9	1	1	..	6	6	..	..	4	4	4	27
9 " " 10 " "	6	7	6	..	1	..	..	..	..	10	3	2	21
10 " " 11 " "	6	10	6	1	..	1	5	..	..	4	4	1	17
11 " " 1 year	7	8	8	1	3	..	4	1	2	4	5	2	26
Total under 1 year	44	145	37	22	11	7	33	8	36	69	103	77	416
Infantile Mortality (a)	0.33	1.08	0.28	0.16	0.08	0.05	0.25	0.06	0.27	0.51	0.77	0.57	3.10
Ex-nuptial deaths under 1 year included in above	6	10	6	1	1	..	1	1	10	5	5	2	38
Infantile Mortality (b)	0.95	1.58	0.95	0.16	0.16	0.16	0.16	0.16	1.58	0.79	0.79	0.32	6.00

Age at Death.	Pneumonia.	Pleurisy.	Other Diseases of Stomach.	Diarrhoea and Enteritis.	Hernia.	Intestinal Obstruction.	Malformation.	Congenital Debility, Icterus and Sclerema.	Premature Birth.	Injury at Birth.	Other Diseases peculiar to Early Infancy.	Lack of Care.	Other Causes.	Total.
Under 1 week	20	..	2	2	..	4	293	272	1,585	333	319	5	74	2,975
1 week and under 2 weeks	4	..	1	3	..	1	46	61	134	25	13	..	17	331
2 weeks	11	..	1	8	..	4	41	43	91	8	15	..	19	281
3 " " " 1 month	10	..	1	16	..	2	19	23	52	3	..	..	16	187
1 month " 2 months	26	1	4	51	1	1	55	69	52	3	14	..	35	445
2 months " 3 " "	20	1	7	105	..	3	38	58	20	2	3	..	27	398
3 " " 4 " "	14	1	2	122	..	3	26	44	8	1	..	1	39	342
4 " " 5 " "	21	..	4	144	1	3	26	29	4	1	..	1	28	358
5 " " 6 " "	26	1	2	123	..	3	12	13	2	..	..	..	27	269
6 " " 7 " "	21	3	1	138	..	10	6	17	1	..	..	..	35	291
7 " " 8 " "	19	1	3	123	..	2	7	16	..	..	..	..	32	271
8 " " 9 " "	33	1	3	122	..	3	9	14	..	..	..	..	32	282
9 " " 10 " "	35	1	1	109	..	1	8	13	..	..	..	..	21	252
10 " " 11 " "	24	..	3	87	..	3	6	6	..	..	..	..	28	214
11 " " 1 year	21	..	3	84	..	4	6	6	..	1	..	..	29	225
Total under 1 year	305	9	38	1,237	2	51	598	684	1,955	376	373	6	459	7,101
Infantile Mortality (a)	2.27	0.07	0.28	9.24	0.01	0.38	4.46	5.11	14.59	2.80	2.78	0.04	3.42	52.96
Ex-nuptial deaths under 1 year included in above	18	1	4	127	..	..	29	70	142	21	13	3	49	563
Infantile Mortality (b)	2.84	0.16	0.63	20.06	..	..	4.58	11.05	22.42	3.32	20.5	0.47	7.74	88.92

(a) Rate per 1,000 total births. (b) Rate per 1,000 ex-nuptial births.

Pre-natal influences, such as malformation, congenital debility, and premature birth, together with injuries at birth, accounted for 3,613, or 51 per cent., of all deaths under one year; and of these 3,613 deaths, 2,483, or 69 per cent., occurred within a week of birth. Among the survivors of the first week, diarrhoea and enteritis had the most fatal effects. These diseases were responsible for 1,237 deaths, representing 17

per cent. of all deaths under one year, or 9.24 per 1,000 births. Excluding deaths from pre-natal causes already referred to, over 40 per cent. of the deaths between three months and one year of age were due to diarrhoea and enteritis.

(vi) *Deaths of Ex-nuptial Children under one Year.* The deaths of ex-nuptial children were tabulated by this Bureau for the first time in 1925. The causes of death of these children in 1928 are shown as an addendum to the preceding table.

Pre-natal influences such as malformation, congenital debility, premature birth, and injuries at birth accounted for 262, or 46.5 per cent., and diarrhoea and enteritis for 127, or 22.6 per cent., of the total deaths.

8. *Deaths in Age-Groups, 1924 to 1928.*—A distribution into age-groups has been made of the 284,160 deaths which occurred in Australia from 1924 to 1928, and the results have been tabulated for each State. It is, however, sufficient to show here the results for Australia as a whole, which are as follow :—

DEATHS IN AGE GROUPS.—AUSTRALIA, 1924 TO 1928.

Age-Group.	Males.	Females.	Total.	Percentage on Total Males.	Percentage on Total Females.	Percentage on Total.
Under 1 year ..	20,619	15,907	36,526	12.83	12.88	12.85
1 year and under 5 ..	6,742	5,684	12,426	4.20	4.60	4.37
5 years and under 20 ..	7,782	5,794	13,576	4.84	4.69	4.78
20 years and under 40 ..	17,429	16,725	34,154	10.85	13.54	12.02
40 years and under 60 ..	35,236	23,487	58,723	21.94	19.01	20.67
60 years and under 65 ..	14,744	9,241	23,985	9.18	7.48	8.44
65 years and over ..	57,928	46,675	104,603	36.07	37.78	36.81
Age unspecified ..	147	20	167	0.09	0.02	0.06
Total ..	160,627	123,533	284,160	100.00	100.00	100.00

9. *Deaths at Single Ages and in Age-Groups, 1928.*—(i) *General.* The 59,378 deaths registered in Australia in the year 1928 will be found tabulated under single years, and in groups of five years for each State and Territory, in Bulletin No. 46 "Australian Demography, 1928." The deaths during the first two years of life have been tabulated in shorter periods. A summary for Australia is given in the following table :—

DEATHS AT SINGLE AGES AND IN AGE-GROUPS.—AUSTRALIA, 1928.

Ages.	Males.	Fe-males.	Total.	Ages.	Males.	Fe-males.	Total.
Total under 1 month ..	2,127	1,647	3,774	Total 20-24 years ..	790	713	1,503
" 1 month and under 3 ..	507	336	843	" 25-29 " ..	797	840	1,637
" 3 months and under 6 ..	543	406	949	" 30-34 " ..	866	891	1,757
" 6 months and under 12 ..	826	709	1,535	" 35-39 " ..	1,140	1,063	2,203
Total under 1 year ..	4,003	3,098	7,101	" 40-44 " ..	1,338	1,072	2,410
1 year and under 2 ..	688	642	1,330	" 45-49 " ..	1,659	1,190	2,849
2 years ..	322	259	581	" 50-54 " ..	1,969	1,237	3,206
3 " ..	204	191	395	" 55-59 " ..	2,292	1,490	3,782
4 " ..	135	111	246	" 60-64 " ..	2,941	1,974	4,915
Total under 5 years ..	5,352	4,301	9,653	" 65-69 " ..	3,486	2,373	5,859
Total 5-9 years ..	555	464	1,019	" 70-74 " ..	3,334	2,352	5,686
" 10-14 " ..	426	324	750	" 75-79 " ..	2,506	2,086	4,592
" 15-19 " ..	636	467	1,103	" 80-84 " ..	1,687	1,691	3,378
				" 85-89 " ..	910	1,113	2,023
				" 90-94 " ..	333	443	776
				" 95-99 " ..	68	133	201
				" 100 and over ..	18	10	28
				Age Unspecified ..	42	6	48
				Total All Ages ..	33,145	26,233	59,378

(ii) *Rates.* The following tables give the death rate per 1,000 living at each age for the three years 1920, 1921, and 1922, i.e., the Census year 1921, and the years immediately preceding and following. The Northern Territory is included with South Australia, and the Federal Capital Territory with New South Wales :—

AVERAGE ANNUAL DEATH RATES.—AGE-GROUPS, 1920 TO 1922.

Age-Group.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	Australia.
MALES.							
0 to 4 years ..	21.49	22.61	20.73	20.01	23.88	20.72	21.64
5 " 9 ..	1.85	2.15	1.96	2.25	2.24	2.04	2.02
10 " 14 ..	1.59	1.61	1.58	1.56	1.42	1.83	1.59
15 " 19 ..	2.16	2.07	2.90	2.42	2.37	2.66	2.30
20 " 24 ..	2.74	3.06	3.54	3.33	3.96	3.23	3.10
25 " 29 ..	3.36	3.60	4.37	3.64	4.08	5.05	3.70
30 " 34 ..	4.13	3.70	4.58	4.00	5.40	4.59	4.16
35 " 39 ..	5.36	5.32	5.95	5.18	6.42	4.79	5.48
40 " 44 ..	7.85	6.60	7.86	6.20	7.90	5.98	6.89
45 " 49 ..	9.61	9.80	10.60	8.81	12.09	8.71	9.91
50 " 54 ..	12.38	12.24	14.23	11.76	17.18	11.51	12.90
55 " 59 ..	18.72	18.24	20.34	19.70	23.76	13.44	19.04
60 " 64 ..	28.35	28.48	30.36	25.63	34.19	23.95	28.71
65 " 69 ..	43.00	44.38	44.93	42.31	49.51	38.53	43.74
70 " 74 ..	65.81	65.16	64.56	62.01	72.15	53.55	64.88
75 " 79 ..	105.54	107.84	103.32	106.23	115.56	109.46	106.53
80 " 84 ..	159.12	163.74	159.06	161.73	184.49	132.47	160.73
85 " 89 ..	271.79	266.12	227.79	226.87	283.46	232.39	259.17
90 and over ..	368.58	387.01	314.96	387.09	566.67	350.00	376.08
FEMALES.							
0 to 4 years ..	16.92	17.91	16.05	16.25	18.80	16.74	17.09
5 " 9 ..	1.66	1.95	1.89	2.27	1.28	2.09	1.82
10 " 14 ..	1.21	1.20	1.43	1.34	1.23	1.63	1.27
15 " 19 ..	1.63	2.00	1.99	2.72	1.34	2.58	1.90
20 " 24 ..	2.43	2.92	2.81	2.85	3.07	3.74	2.75
25 " 29 ..	3.47	3.55	3.61	3.85	3.99	3.87	3.59
30 " 34 ..	3.85	4.13	4.11	4.21	4.60	4.41	4.06
35 " 39 ..	4.64	4.98	5.80	5.18	4.90	5.98	5.00
40 " 44 ..	5.15	5.74	6.03	4.98	6.39	5.48	5.51
45 " 49 ..	6.71	6.91	6.76	6.40	8.12	7.31	6.87
50 " 54 ..	9.35	9.11	9.11	9.10	10.62	8.61	9.27
55 " 59 ..	13.17	12.87	13.60	10.85	12.81	14.23	12.92
60 " 64 ..	19.08	19.06	19.71	18.27	17.78	20.13	19.05
65 " 69 ..	31.59	31.69	30.81	32.89	30.49	34.72	31.76
70 " 74 ..	50.24	51.83	50.61	45.65	54.20	49.42	50.43
75 " 79 ..	88.19	88.52	88.10	83.98	96.43	80.32	87.81
80 " 84 ..	140.29	143.71	126.40	132.25	137.07	126.00	138.32
85 " 89 ..	225.11	231.45	210.65	193.54	219.51	208.79	221.44
90 and over ..	380.95	321.79	288.89	337.50	478.26	352.94	341.68
PERSONS.							
0 to 4 years ..	19.24	20.30	18.45	18.17	21.39	18.75	19.40
5 " 9 ..	1.76	2.05	1.93	2.26	1.76	2.07	1.92
10 " 14 ..	1.40	1.40	1.51	1.45	1.33	1.73	1.43
15 " 19 ..	1.90	2.03	2.45	2.57	1.86	2.62	2.10
20 " 24 ..	2.58	2.99	3.17	3.09	3.52	3.49	2.92
25 " 29 ..	3.42	3.57	4.00	3.75	4.03	4.43	3.64
30 " 34 ..	3.99	3.92	4.37	4.10	5.03	4.50	4.11
35 " 39 ..	5.03	5.14	5.88	5.18	5.72	5.39	5.24
40 " 44 ..	5.99	6.16	7.04	5.60	7.23	5.73	6.22
45 " 49 ..	8.21	8.30	8.89	7.62	10.41	8.04	8.44
50 " 54 ..	10.97	10.67	12.04	10.46	14.58	10.16	11.20
55 " 59 ..	16.19	15.60	17.57	15.32	19.61	13.80	16.22
60 " 64 ..	24.11	23.93	25.99	22.13	27.90	22.13	24.22
65 " 69 ..	37.81	37.90	39.23	37.80	41.71	36.73	38.17
70 " 74 ..	58.34	58.09	58.64	53.85	64.31	51.54	57.82
75 " 79 ..	97.02	97.07	96.41	94.82	106.68	93.60	96.98
80 " 84 ..	149.75	152.49	144.74	145.42	162.58	128.81	149.09
85 " 89 ..	248.05	246.87	219.48	206.49	252.00	219.14	238.91
90 and over ..	374.81	349.09	304.15	355.73	528.30	351.64	357.36

The high death rate for children under five years of age diminishes rapidly until, at ages 10 to 14, it stands at 1.43 per 1,000, which is the lowest at any age. The rate thereafter gradually rises with increasing age until, at the ages 90 and over, more than one-third die every year.

10. Deaths of Centenarians, 1928.—Particulars concerning the twenty-eight persons—eighteen males and ten females—who died in 1928 aged 100 years and upwards, are given in the following table. While the Registrars-General of the various States verify the figures as far as possible, absolute reliance cannot be placed on their accuracy, owing to the well-known tendency of very old people to overstate their ages. In connexion with this question it may be noted that while parish registers in the United Kingdom often date very far back, compulsory registration of births dates practically from 1874 only, the Act of 1836 having left many loopholes for those unwilling to register the births of their children.

DEATHS OF CENTENARIANS.—AUSTRALIA, 1928.

Age.	Locality where Death occurred.	State.	Cause of Death.	Occupation.	Birthplace.	Length of Residence in Australia.	Conjugal Condition.
MALES.							
108	New Lambton	N.S.W. ..	Chronic Myocarditis	Dealer ..	West Indies	50 years ..	Single
108	Parkes ..	" ..	Lobar Pneumonia	Carrier ..	N.S.W. ..	Native ..	Married
106	East Melbourne	Victoria ..	Chronic Nephritis	Handyman	Sweden ..	40 years ..	Single
105	Murrumburrah	N.S.W. ..	Senility	Labourer..	N.S.W. ..	Native ..	"
104	Perth ..	W. Aust. ..	" ..	Not stated	Unknown	Unknown	"
102	Kyogle ..	N.S.W. ..	" ..	" ..	Denmark	70 years ..	"
102	Lancefield	Victoria ..	" ..	Farmer ..	Scotland	65 years ..	Married
102	Sutherland	N.S.W. ..	Cerebral Apoplexy	Hospital Attendant	England ..	Unknown	"
101	Bathurst ..	" ..	Hypostatic Pneumonia	Labourer..	Ireland ..	86 years ..	"
101	Kapunda ..	Sth. Aust.	Senility ..	Gentleman	Germany..	74 years ..	"
101	Orange ..	N.S.W. ..	" ..	Labourer..	N.S.W. ..	Native ..	"
101	Windsor ..	" ..	Cholecystitis	" ..	New Hebrides	Unknown	Single
100	Adelaide ..	Sth. Aust.	Senility ..	Painter ..	India ..	57 years ..	"
100	Brisbane ..	Queensland	" ..	Labourer..	England ..	49 years ..	Married
100	Granville ..	N.S.W. ..	" ..	Miner ..	Ireland ..	72 years ..	"
100	Ipswich ..	Queensland	" ..	Farmer ..	England ..	79 years ..	"
100	Randwick	N.S.W. ..	" ..	" ..	India ..	71 years ..	Single
100	Taree ..	" ..	Hemiplegia	" ..	England ..	95 years ..	Married
FEMALES.							
105	Nowra ..	N.S.W. ..	Senility ..	" ..	N.S.W. ..	Native ..	Married
104	Ararat ..	Victoria ..	" ..	" ..	England ..	74 years ..	"
104	Bendigo ..	" ..	" ..	" ..	" ..	70 years ..	"
104	Williams ..	W. Aust.	" ..	" ..	Unknown	88 years ..	"
103	Cobar ..	N.S.W. ..	" ..	" ..	" ..	Unknown	Not stated
103	Maryborough	Victoria ..	Pulmonary Oedema	" ..	Scotland	60 years ..	Married
101	Burnett ..	Queensland	Pulmonary Congestion	" ..	Ireland ..	79 years ..	"
100	Geelong ..	Victoria ..	Bronchitis	" ..	" ..	80 years ..	"
100	Glen Innes	N.S.W. ..	Senility ..	" ..	Germany..	70 years ..	"
100	Tallarook ..	Victoria ..	" ..	" ..	Ireland ..	80 years ..	"

NOTE.—The particulars shown in this table are those given in the death certificates, and no attempt has been made by the Commonwealth Bureau of Census and Statistics to verify them.

11. Length of Residence in Australia of Persons who Died in 1928.—The length of residence in Australia of all persons whose deaths were registered in the year 1928 is shown in the following table:—

LENGTH OF RESIDENCE IN AUSTRALIA OF PERSONS WHO DIED IN 1928.

Length of Residence.	Male Deaths.	Female Deaths.	Total Deaths.	Length of Residence.	Male Deaths.	Female Deaths.	Total Deaths.
Born in Australia ..	21,769	18,663	40,432	Resident 25 to 29 years	263	112	375
Resident under 1 year ..	142	59	201	" 30 to 34 ..	426	172	598
" 1 year ..	83	47	130	" 35 to 39 ..	509	287	796
" 2 years ..	102	56	158	" 40 to 44 ..	1,420	806	2,226
" 3 ..	96	57	153	" 45 to 49 ..	1,051	618	1,669
" 4 ..	70	63	133	" 50 to 54 ..	1,008	591	1,599
" 5 ..	97	60	157	" 55 to 59 ..	435	330	765
" 6 ..	88	54	142	" 60 to 64 ..	710	625	1,335
" 7 ..	50	67	117	" 65 yrs. and over	1,565	2,087	3,652
" 8 ..	64	76	140	Length of residence not stated ..	1,737	480	2,217
" 9 ..	28	44	72				
" 10 to 14 years	240	188	428				
" 15 to 19 ..	768	551	1,319				
" 20 to 24 ..	424	140	564	Total ..	33,145	26,233	59,378

12. Birthplaces of Persons who Died in 1928.—The following table gives the birthplaces of persons whose deaths were registered in 1928. More detailed information will be found in "Australian Demography," Bulletin No. 46.

BIRTHPLACES OF PERSONS WHO DIED IN 1928.—AUSTRALIA.

Birthplace.	Males.	Females.	Persons.	Birthplace.	Males.	Females.	Persons.
AUSTRALASIA—				ASIA—			
New South Wales	8,163	6,932	15,095	British India and Ceylon ..	84	25	109
Victoria ..	7,168	6,119	13,287	Afghanistan ..	1	..	1
Queensland ..	2,166	1,874	4,040	China ..	234	..	236
South Australia	2,340	1,962	4,302	Japan ..	28	..	28
Western Australia	668	548	1,216	Malaya ..	3	..	3
Tasmania ..	1,239	1,219	2,458	Netherlands East.			
Northern Territory	12	7	19	Indies ..	1	..	1
Federal Capital Territory ..	13	2	15	Philippine Islands	7	1	8
New Zealand ..	263	168	431	Syria ..	20	7	27
				Other Asiatic Countries ..	26	1	27
EUROPE—				AFRICA—			
England and Wales	5,239	3,798	9,037	Mauritius ..	8	4	12
Scotland ..	1,447	1,047	2,494	Union of Sth. Africa	28	22	50
Ireland ..	1,808	1,687	3,495	Egypt ..	1	1	2
Other Brit. Possessions in Europe	35	17	52	Other African Countries ..	5	3	8
Austria ..	16	5	21	AMERICA—			
Belgium ..	4	6	10	Canada ..	56	14	70
Czecho-Slovakia	2	..	2	Other British Possessions in America ..	9	5	14
Denmark ..	109	40	149	United States of America ..	92	49	141
Finland ..	35	3	38	Other American Countries ..	19	11	30
France ..	45	18	63	POLYNESIA—			
Germany ..	419	267	686	Fiji ..	3	4	7
Greece ..	46	13	59	Friendly Islands	1	..	1
Italy ..	165	32	197	New Caledonia ..	2	4	6
Jugo-Slavia ..	15	..	15	New Hebrides ..	3	..	3
Netherlands ..	21	7	28	Other Polynesian Islands ..	52	5	57
Norway ..	68	5	73	At Sea ..	69	82	151
Poland ..	24	13	37	Unspecified ..	639	155	794
Russia ..	46	21	67				
Spain ..	12	6	18				
Sweden ..	124	7	131				
Switzerland ..	24	10	34				
Other European Countries ..	18	5	23				
				Total Deaths ..	33,145	26,233	59,378

13. Occupations of Males who Died in 1928.—(i) *Australia, 1928.* Information as to the main groups of the occupations of the 33,145 males who died in Australia in 1928 is contained in the following table :—

OCCUPATIONS OF MALES WHO DIED IN 1928.—AUSTRALIA.

Occupations.	No. of Deaths.	Occupations.	No. of Deaths.
CLASS I.—PROFESSIONAL.		CLASS V.—INDUSTRIAL.	
Government, Defence, Law	586	Art and Mechanic productions ..	1,119
Others	924	Textiles and fibrous materials ..	519
Total Class I.	1,510	Food and drinks	310
		Animal and vegetable substances	128
		Metals and minerals	569
		Fuel, light and energy	123
		Building and construction	1,510
		Others	6,135
CLASS II.—DOMESTIC.		Total Class V.	10,413
Board and lodging	427		
Others	414		
Total Class II.	841		
CLASS III.—COMMERCIAL.		CLASS VI.—AGRICULTURAL, PASTORAL, MINING, ETC.	
Property and finance	324	Agricultural	3,520
Art, mechanic and textile products	256	Pastoral	1,087
Food and drinks	591	Mining and quarrying	1,195
Animal and vegetable substances	106	Others	238
Fuel, light and metals	60	Total Class VI.	6,040
Merchants and dealers	744		
Others	1,505		
Total Class III.	3,586	CLASS VII.—INDEFINITE.	
		Independent means	669
		Occupation unspecified	1,276
CLASS IV.—TRANSPORT AND COMMUNICATION.		Total Class VII.	1,945
Railway traffic	655		
Road and tramway traffic	739		
Sea and River traffic	619	CLASS VIII.—DEPENDENTS	
Others	204		6,593
Total Class IV.	2,217	Total Male Deaths	33,145

(ii) *Australia, 1924 to 1928.* The male deaths in Australia grouped according to the main classes of occupations, and the percentage of each class on the total male deaths for the five years 1924 to 1928 are shown in the table hereunder :—

OCCUPATIONS OF MALES WHO DIED IN AUSTRALIA, 1924 TO 1928.

Occupation.	1924.	1925.	1926.	1927.	1928.
Class					
I. Professional ..	Total 1,327	1,378	1,432	1,411	1,510
	Per cent. 4.27	4.43	4.42	4.29	4.56
II. Domestic ..	Total 802	840	799	860	841
	Per cent. 2.58	2.70	2.47	2.62	2.54
III. Commercial ..	Total 3,063	3,067	3,251	3,393	3,586
	Per cent. 9.85	9.85	10.04	10.32	10.81
IV. Transport and communication	Total 2,041	2,102	2,344	2,352	2,217
	Per cent. 6.56	6.75	7.24	7.16	6.69
V. Industrial ..	Total 9,510	9,555	9,922	10,275	10,413
	Per cent. 30.57	30.69	30.64	31.27	31.42
VI. Agricultural, Pastoral, Mining, etc.	Total 5,959	6,101	6,105	6,100	6,040
	Per cent. 19.16	19.60	18.85	18.57	18.22
VII. Indefinite ..	Total 1,431	1,539	1,760	1,814	1,945
	Per cent. 4.60	4.94	5.43	5.52	5.87
VIII. Dependents ..	Total 6,970	6,552	6,774	6,653	6,593
	Per cent. 22.41	21.04	20.91	20.25	19.89
Total	31,103	31,134	32,387	32,858	33,145

14. Causes of Death.—(i) *General*. The classification adopted by the Commonwealth Bureau of Census and Statistics is that of the International Institute of Statistics, as amended by the Committees of Revision which met in Paris in 1909 and 1920. The detailed classification groups causes of death under 205 headings in the following categories:—

- | | |
|---|--|
| <ul style="list-style-type: none"> i. Epidemic, Endemic, and Infectious Diseases. ii. General Diseases not included in (i). iii. Diseases of the Nervous System and Organs of Sense. iv. Diseases of the Circulatory System. v. Diseases of the Respiratory System. vi. Diseases of the Digestive System. vii. Diseases of the Genito-urinary System and Adnexa. | <ul style="list-style-type: none"> viii. Puerperal Condition. ix. Diseases of the Skin and Cellular Tissue. x. Diseases of the Organs of Locomotion. xi. Malformations. xii. Early Infancy. xiii. Old Age. xiv. External Causes. xv. Ill-defined Diseases. |
|---|--|

(ii) *Mortality Statistics for 1907 and Subsequent Years*. The statistics relating to causes of death in Australia from the year 1907 onward have been tabulated in the Commonwealth Bureau of Census and Statistics in accordance with the above-mentioned classification, and the system is being employed also in the various State statistical offices.

(iii) *Classification of Causes of Death, 1924 to 1928, according to Abridged International Classification*. An abridged classification, which enumerates thirty-eight diseases and groups of diseases according to the revised classification, is in use in many European countries and American States, and a table has been prepared showing the causes of death according to the abridged classification, so that the results may be compared with those of countries which use the abridged index.

The compilations for the years 1924 to 1928 will be found in full in Bulletins Nos. 42 to 46 of "Australian Demography." In the following tables showing deaths of males, females, and persons for the year 1928 the abridged classification has been employed.

CAUSES OF DEATH.—MALES, 1928.

Cause.	N.S.W.	Vic.	Q'land.	S. Aus.	W. Aus.	Tas.	Nor. Ter.	Fed. Cap. Ter.	Australia.
1 Typhoid Fever ..	40	24	29	9	8	5	..	..	115
2 Typhus Fever ..	..	..	1	..	2	..	..	..	3
3 Malaria ..	3	1	5	1	..	..	2	..	12
4 Small-pox ..	..	..	..	..	..	..	..	..	..
5 Measles ..	88	7	7	1	1	7	..	..	111
6 Scarlet Fever ..	46	10	..	1	2	..	..	..	59
7 Whooping Cough ..	47	22	11	8	3	8	1	1	101
8 Diphtheria ..	100	63	38	8	8	8	..	..	225
9a Influenza—Pneumonic	90	135	27	10	10	9	..	..	281
9b Influenza—other ..	37	39	30	3	7	4	..	..	120
10 Asiatic Cholera ..	..	..	..	..	..	..	..	..	..
11 Cholera Nostras ..	..	1	..	..	..	..	..	..	1
12 Other Epidemic Diseases	58	74	25	18	10	3	4	..	192
13 Tuberculosis of the Respiratory System	678	534	215	160	201	60	3	..	1,851
14 Tuberculosis of the Men- inges ..	27	35	1	6	10	4	..	..	83
15 Other forms of Tuber- culosis ..	52	50	15	26	11	10	..	..	164
16 Cancer and other Malign- ant Tumours ..	1,196	911	432	305	191	81	3	1	3,120
17 Meningitis ..	66	33	21	12	6	7	..	..	145
18 Hæmorrhage, Embolism, and Softening of Brain	616	471	200	142	99	57	1	1	1,587
19 Diseases of the Heart	2,128	1,281	676	333	252	157	3	4	4,834
20 Acute Bronchitis ..	84	26	16	5	8	6	..	..	145
21 Chronic Bronchitis ..	143	133	62	31	27	13	..	..	409
22 Pneumonia ..	634	579	203	148	102	89	2	..	1,757
23 Other Diseases of the Respiratory System (Tuberculosis exceptd.)	529	570	197	134	130	47	4	4	1,615
24 Diseases of the Stomach (Cancer excepted) ..	140	86	51	17	19	10	..	1	324
25a Diarrhœa and Enteritis (children under 2 years of age)	414	231	82	44	67	28	..	4	870
25b Diarrhœa and Enteritis (2 years and over) ..	95	67	48	21	13	3	..	..	247
26 Appendicitis & Typhlitis	126	82	51	25	17	9	..	..	310
27 Hernia, Intestinal Ob- struction ..	108	77	47	27	25	8	1	..	293
28 Cirrhosis of the Liver	88	71	39	26	14	3	1	..	242
29 Acute and Chronic Nephritis ..	715	515	288	144	103	21	1	2	1,789
30 Non-cancerous Tumours and other Diseases of Female Genital Organs	..	..	..	..	..	..	..	..	..
31 Puerperal Septicæmia (Puerperal Fever) ..	..	..	..	..	..	..	..	..	..
32 Other Puerperal Acci- dents of Pregnancy and Confinement ..	..	..	..	..	..	..	..	..	..
33 Congenital Debility and Malformation ..	853	576	289	148	121	91	2	3	2,083
34 Senility ..	389	454	310	193	111	104	7	1	1,569
35a Homicide ..	30	10	9	8	3	..	2	..	62
35b Other Accidental Deaths	1,044	649	421	229	218	63	10	5	2,639
36 Suicide ..	241	152	100	60	62	20	..	..	635
37 Other Diseases ..	1,786	1,304	721	431	306	180	8	4	4,740
38 Unspecified or Ill-defined Diseases ..	71	111	48	97	62	13	10	..	412
Total—Males ..	12,762	9,384	4,715	2,831	2,229	1,128	65	31	33,145

CAUSES OF DEATH.—FEMALES, 1928.

Cause.	N.S.W.	Vic.	Q'land.	S. Aus.	W. Aus.	Tas.	Nor. Ter.	Fed. Cap. Ter.	Aus-tralia.
1 Typhoid Fever ..	20	13	7	9	4	1	..	..	54
2 Typhus Fever ..	..	..	2	..	..	..	..	..	2
3 Malaria ..	1	..	2	..	..	..	..	..	3
4 Small-pox ..	..	..	..	..	..	..	..	..	..
5 Measles ..	74	5	..	1	2	8	..	..	90
6 Scarlet Fever ..	59	3	6	..	..	1	..	1	72
7 Whooping Cough ..	56	30	17	13	4	15	1	..	136
8 Diphtheria ..	72	68	46	7	5	10	..	..	208
9aInfluenza—Pneumonic ..	81	140	17	8	12	7	..	1	266
9bInfluenza—other ..	39	44	32	3	11	3	..	..	132
10 Asiatic Cholera ..	..	..	..	..	..	..	..	..	..
11 Cholera Nostras ..	..	..	..	..	..	..	..	..	..
12 Other Epidemic Diseases ..	51	53	20	23	5	5	1	..	158
13 Tuberculosis of the Respiratory System ..	487	482	130	124	81	46	..	1	1,351
14 Tuberculosis of the Meninges ..	25	35	2	8	5	6	..	..	81
15 Other forms of Tuberculosis ..	46	23	8	17	7	12	..	..	113
16 Cancer and other Malignant Tumours ..	1,083	961	336	271	154	85	..	..	2,890
17 Meningitis ..	48	28	19	10	5	6	..	..	116
18 Hæmorrhage, Embolism, and Softening of Brain ..	632	627	184	177	88	65	1	..	1,774
19 Diseases of the Heart ..	1,714	1,141	418	276	195	156	1	2	3,903
20 Acute Bronchitis ..	55	34	10	12	2	2	..	..	115
21 Chronic Bronchitis ..	115	130	34	39	11	14	..	1	344
22 Pneumonia ..	444	393	137	111	50	61	..	..	1,196
23 Other Diseases of the Respiratory System (Tuberculosis exceptd.) ..	396	418	98	116	74	43	..	2	1,147
24 Diseases of the Stomach (Cancer excepted) ..	65	45	26	14	14	7	..	..	171
25aDiarrhœa and Enteritis (children under 2 years of age) ..	358	197	72	44	57	17	..	1	746
25bDiarrhœa and Enteritis (2 years and over) ..	101	83	45	13	20	10	..	..	272
26 Appendicitis & Typhlitis ..	64	51	21	12	10	2	..	..	160
27 Hernia, Intestinal Obstruction ..	100	70	29	27	13	7	..	..	246
28 Cirrhosis of the Liver ..	25	40	15	8	6	3	..	..	97
29 Acute and Chronic Nephritis ..	529	439	260	91	60	21	..	..	1,400
30 Non-cancerous Tumours and other Diseases of Female Genital Organs ..	79	56	29	16	11	5	..	..	196
31 Puerperal Septicæmia (Puerperal Fever) ..	127	65	31	20	20	11	..	1	275
32 Other Puerperal Accidents of Pregnancy and Confinement ..	199	139	95	34	38	21	..	1	527
33 Congenital Debility and Malformation ..	648	434	232	135	84	69	..	1	1,603
34 Senility ..	383	611	216	205	98	112	..	2	1,627
35aHomicide ..	15	22	2	7	3	..	..	..	49
35bOther Accidental Deaths ..	271	203	110	68	52	30	..	..	734
36 Suicide ..	55	51	15	8	8	5	..	..	142
37 Other Diseases ..	1,354	1,113	523	349	177	127	1	2	3,646
38 Unspecified or Ill-defined Diseases ..	24	77	15	38	25	11	1	..	191
Total—Females ..	9,895	8,324	3,261	2,316	1,411	1,004	6	16	26,233

CAUSES OF DEATH.—PERSONS, 1928.

Cause.	N.S.W.	Vic.	Q'land.	S. Aus.	W. Aus.	Tas.	Nor. Ter.	Fed. Cap. Ter.	Australia.
1 Typhoid Fever ..	60	37	36	18	12	6	..	..	169
2 Typhus Fever ..	..	..	3	..	2	..	..	..	5
3 Malaria ..	4	1	7	1	..	..	2	..	15
4 Small-pox ..	..	..	..	..	..	..	..	..	..
5 Measles ..	162	12	7	2	3	15	..	..	201
6 Scarlet Fever ..	105	13	6	3	2	1	..	1	131
7 Whooping Cough ..	103	52	28	21	7	23	2	1	237
8 Diphtheria ..	172	131	84	15	13	18	..	..	433
9aInfluenza—Pneumonic ..	171	275	44	18	22	16	..	1	547
9bInfluenza—other ..	76	83	62	6	18	7	..	..	252
10 Asiatic Cholera ..	..	..	..	..	..	..	..	..	..
11 Cholera Nostras ..	..	1	..	..	..	..	..	..	1
12 Other Epidemic Diseases ..	109	127	45	41	15	8	5	..	350
13 Tuberculosis of the Respiratory System ..	1,165	1,016	345	284	282	106	3	1	3,202
14 Tuberculosis of the Meninges ..	52	70	3	14	15	10	..	..	164
15 Other forms of Tuberculosis ..	98	73	23	43	18	22	..	..	277
16 Cancer and other Malignant Tumours ..	2,279	1,872	768	576	345	166	3	1	6,010
17 Meningitis ..	114	61	40	22	11	13	..	..	261
18 Hæmorrhage, Embolism, and Softening of Brain ..	1,248	1,098	384	319	187	122	2	1	3,361
19 Diseases of the Heart ..	3,842	2,422	1,094	609	447	313	4	6	8,737
20 Acute Bronchitis ..	139	60	26	17	10	8	..	..	260
21 Chronic Bronchitis ..	258	263	96	70	38	27	..	1	753
22 Pneumonia ..	1,078	972	340	259	152	150	2	..	2,953
23 Other Diseases of the Respiratory System (Tuberculosis exceptd.) ..	925	988	295	250	204	90	4	6	2,762
24 Diseases of the Stomach (Cancer excepted) ..	205	131	77	31	33	17	..	1	495
25aDiarrhœa and Enteritis (children under 2 years of age) ..	772	428	154	88	124	45	..	5	1,616
25bDiarrhœa and Enteritis (2 years and over) ..	196	150	93	34	33	13	..	..	519
26 Appendicitis & Typhlitis ..	190	133	72	37	27	11	..	..	470
27 Hernia, Intestinal Obstruction ..	208	147	76	54	38	15	1	..	539
28 Cirrhosis of the Liver ..	113	111	54	34	20	6	1	..	339
29 Acute and Chronic Nephritis ..	1,244	954	548	235	163	42	1	2	3,189
30 Non-cancerous Tumours and other Diseases of Female Genital Organs ..	79	56	29	16	11	5	..	..	196
31 Puerperal Septicæmia (Puerperal Fever) ..	127	65	31	20	20	11	..	1	275
32 Other Puerperal Accidents of Pregnancy and Confinement ..	199	139	95	34	38	21	..	1	527
33 Congenital Debility and Malformation ..	1,501	1,010	521	283	205	160	2	4	3,686
34 Senility ..	772	1,065	526	398	209	216	7	3	3,196
35aHomicide ..	45	32	11	15	6	..	2	..	111
35bOther Accidental Deaths ..	1,315	852	531	297	270	93	10	5	3,373
36 Suicide ..	296	203	115	68	70	25	..	..	777
37 Other Diseases ..	3,140	2,417	1,244	780	483	307	9	6	8,386
38 Unspecified or Ill-defined Diseases ..	95	188	63	135	87	24	11	..	603
Total—Persons ..	22,657	17,708	7,976	5,147	3,640	2,132	71	47	59,378

The next table shows the total deaths in Australia during the last five years in accordance with the abridged classification alluded to previously.

CAUSES OF DEATH.—AUSTRALIA, 1924 TO 1928.

PERSONS.

Cause.	1924.	1925.	1926.	1927.	1928.
1 Typhoid Fever	218	170	183	161	169
2 Typhus Fever		3	2	2	5
3 Malaria	30	35	25	20	15
4 Small-pox				1	
5 Measles	119	130	108	113	201
6 Scarlet Fever	55	55	81	159	131
7 Whooping Cough	420	463	340	377	237
8 Diphtheria	437	273	322	388	433
9a Influenza—Pneumonic	341	190	470	238	547
9b Influenza—other	241	161	285	189	252
10 Asiatic Cholera					
11 Cholera Nostris	2		2		1
12 Other Epidemic Diseases	340	419	526	321	350
13 Tuberculosis of the Respiratory System	3,066	2,994	3,142	3,030	3,202
14 Tuberculosis of the Meninges	167	156	166	179	164
15 Other forms of Tuberculosis	316	274	237	232	277
16 Cancer and other Malignant Tumours	5,424	5,477	5,700	5,758	6,010
17 Meningitis	415	237	276	273	261
18 Hemorrhage, Embolism, and Softening of the Brain	2,305	3,038	3,149	3,257	3,361
19 Diseases of the Heart	6,294	7,486	7,692	8,393	8,760
20 Acute Bronchitis	300	260	248	344	270
21 Chronic Bronchitis	808	741	766	790	753
22 Pneumonia	2,374	2,218	2,469	2,779	2,953
23 Other Diseases of the Respiratory System (Tuberculosis excepted)	2,742	2,522	2,534	2,767	2,762
24 Diseases of the Stomach (Cancer excepted)	437	475	529	534	495
25a Diarrhoea and Enteritis (children under two years only)	1,810	1,386	1,614	1,330	1,616
25b Diarrhoea and Enteritis (2 years and over)	486	442	549	513	519
26 Appendicitis and Typhlitis	408	438	476	483	470
27 Hernia, Intestinal Obstruction	551	564	578	517	539
28 Cirrhosis of the Liver	300	312	312	321	339
29 Acute and Chronic Nephritis	2,893	2,978	2,989	3,098	3,189
30 Non-cancerous Tumours and other Diseases of the Female Genital Organs	199	165	166	179	196
31 Puerperal Septicæmia (Puerperal Fever, Peritonitis)	265	236	218	288	275
32 Other Puerperal Accidents of Pregnancy and Confinement	473	530	488	504	527
33 Congenital Debility and Malformation	3,859	3,658	3,717	3,784	3,686
34 Senility	4,156	3,563	3,562	3,623	3,196
35 Violent Deaths—					
(a) Homicide	108	83	103	110	111
(b) Other Accidental Deaths	2,833	3,134	3,393	3,520	3,373
36 Suicide	653	700	711	740	777
37 Other Diseases	8,400	7,924	8,133	8,389	8,386
38 Unspecified or Ill-defined Diseases	735	648	690	570	603
Total	54,980	54,568	56,952	58,282	59,378

NOTE.—In consequence of changes made in the classification of the causes of death the figures given in the table above are not on identical lines throughout the period covered.

15. Deaths from Specific Causes.—The above table furnishes particulars for the last five years only, and comparisons will, therefore, generally be restricted to that period.

(i) *Typhoid Fever*. The number of deaths from typhoid fever declined from 218 in 1924 to 169 in 1928, the rate for the latter year being 3 per 100,000 living, and much lower than the average for the last five years. Of the 169 who died, 115 were males and 54 females.

(ii) *Typhus*. Deaths from typhus have been rare in Australia. During 1928, 5 deaths were recorded from this cause, 3 of which occurred in Queensland and 2 in Western Australia. In 1927, 1 death occurred in South Australia and 1 in Western Australia. In 1926, 1 death occurred in Victoria and 1 in South Australia. In 1925 there were 2 deaths in Queensland and 1 in South Australia. In 1923 1 death occurred in South Australia. These represent the only deaths recorded from typhus in Australia

(iii) *Malaria*. Deaths from malarial diseases are mainly confined to the tropical districts of Northern Queensland and Western Australia, and to the Northern Territory; 7 out of the 15 deaths registered in 1928 occurred in Queensland, 4 in New South Wales, 2 in the Northern Territory, 1 each in Victoria and South Australia.

(iv) *Small-pox*. The number of deaths from small-pox in Australia is very small and during the five years under review only one death occurred from this cause.

(v) *Measles*. Of the deaths from measles the greatest number occurred during 1928, when 201 were registered, while the minimum was in 1926 with a total of 108 deaths. Of the 201 deaths during 1928, 111 were males and 90 females; of these 162 were registered in New South Wales, 12 in Victoria, 7 in Queensland, 15 in Tasmania, 3 in Western Australia, and 2 in South Australia.

(vi) *Scarlet Fever*. The number of deaths decreased during 1928, when there were 131 deaths, of which 59 were males and 72 females. Of these deaths 105 occurred in New South Wales.

(vii) *Whooping Cough*. During 1928 there was a heavy decline in deaths from whooping cough, the number 237 (101 males and 136 females) representing a death rate of 4 per 100,000 persons. The deaths in each State were as follow:—New South Wales 103, Victoria 52, Queensland 28, South Australia 21, Western Australia 7, and 23 in Tasmania.

(viii) *Diphtheria*. The number of deaths due to diphtheria was 433 in 1928. Of these deaths (representing a death rate of 7 per 100,000 persons) 225 were males and 208 females. The deaths in each State were as follow:—New South Wales 172, Victoria 131, Queensland 84, South Australia 15, Western Australia 13, and Tasmania 18.

(ix) *Influenza*. The deaths from influenza during 1928 were higher than in the previous four years. Of the 799 deaths during 1928 from this disease, 547 were ascribed to pneumonic influenza and 252 to ordinary influenza.

(x) *Asiatic Cholera*. No deaths from Asiatic cholera have been recorded in Australia.

(xi) *Cholera Nostras*. For the five years under review only 5 deaths have been due to this cause.

(xii) *Other Epidemic Diseases*. The deaths registered under this heading numbered 350 in 1928, including 111 from dysentery, erysipelas 64, lethargic encephalitis 59, acute poliomyelitis 52, meningococcal meningitis 36, mumps 11, leprosy 7, spirochetal hæmorrhagic jaundice 2, and other epidemic diseases 8. During the period 1924–28 there were no deaths from plague.

(xiii) *Tuberculosis of the Respiratory System*. Of the various forms of tuberculosis prevalent in Australia, phthisis, or tuberculosis of the lungs, has attracted the most attention. The intimate relation, however, between tuberculosis of the lungs and of other parts of the respiratory system renders it desirable that all forms of tuberculosis of the respiratory system should be brought under one head for investigations concerning the age incidence and duration of this disease.

During 1928 there were 3,202 deaths from tuberculosis of the respiratory system, which compares favourably with the average of 3,058 for the preceding four years. The 3,202 deaths in 1928 represented a rate of 51 per 100,000 persons. Of these deaths, 1,851 were males and 1,351 females.

(xiv) *Tuberculosis of the Meninges*. The number of deaths ascribed to this cause in 1928 was 164, which is about the average number for the preceding four years.

(xv) *Other Forms of Tuberculosis*. The deaths in 1928 include the following:—Tuberculosis of the intestines and peritoneum, 77; tuberculosis of the spinal column, 52; tuberculosis of the joints, 18; tuberculosis of other organs, 48; acute disseminated tuberculosis, 57; and chronic disseminated tuberculosis, 25.

(xva) *All Forms of Tuberculosis*.—(a) *General*. The total number of deaths in 1928 was 3,643, viz., 2,098 males and 1,545 females.

(b) *Ages at Death.* The following table shows the ages of these 3,643 persons:—

TUBERCULAR DISEASES.—DEATHS IN AGE-GROUPS, AUSTRALIA, 1928.

Ages.	Male.	Female.	Total.	Ages.	Male.	Female.	Total.
Under 5 years ..	80	65	145	55 years and under 60	173	59	232
5 years and under 10	16	21	37	60 " " 65	144	50	194
10 " " 15	15	22	57	65 " " 70	109	39	148
15 " " 20	48	115	163	70 " " 75	47	23	70
20 " " 25	147	223	370	75 " " 80	34	15	49
25 " " 30	174	245	419	80 " over ..	10	7	17
30 " " 35	200	205	405	Unspecified ..	2	..	2
35 " " 40	219	177	396	Total ..	2,098	1,545	3,643
40 " " 45	213	119	332				
45 " " 50	230	95	325				
50 " " 55	217	65	282				

(c) *Occupations at Death, Males.* A tabulation of occupations of the males who died from tubercular diseases in 1928 is given hereunder:—

OCCUPATIONS OF MALES WHO DIED FROM TUBERCULAR DISEASES—AUSTRALIA, 1928.

Occupations.	No. of Male Deaths.	Occupations.	No. of Male Deaths.
PROFESSIONAL CLASS—		INDUSTRIAL CLASS—	
Government, Defence, Law ..	53	Art and Mechanic Productions	83
Others	63	Textiles and Fibrous Materials	42
DOMESTIC CLASS—		Food and Drinks	27
Board and Lodging	32	Animal and Vegetable Substances	10
Others	34	Metals and Minerals	39
COMMERCIAL CLASS—		Fuel, Light and Energy	18
Property and Finance	19	Building and Construction	107
Art, Mechanic and Textile Products	22	Others	449
Food and Drinks	44	AGRICULTURAL, PASTORAL, MINING, ETC., CLASS—	
Animal and Vegetable Substances	9	Agricultural	124
Fuel, Light and Metal	5	Pastoral	38
Merchants and Dealers	45	Mining and Quarrying	191
Others	181	Others	13
TRANSPORT AND COMMUNICATION CLASS—		INDEPENDENT MEANS	20
Railway Traffic	44	DEPENDENTS	160
Road and Tramway Traffic	58	OCCUPATION NOT STATED	88
Sea and River Traffic	59	TOTAL MALE DEATHS	2,098
Others	21		

(d) *Length of Residence in Australia.* The length of residence in Australia of persons who died from tubercular diseases in 1928 is given in the next table.

LENGTH OF RESIDENCE IN AUSTRALIA OF PERSONS WHO DIED FROM TUBERCULAR DISEASES, 1928.

Length of Residence in Australia.	Male.	Fem.	Total.	Length of Residence in Australia.	Male.	Fem.	Total.
Born in Australia	1,539	1,311	2,850	Resident 10 years & under 15	30	16	46
Resident under 1 year	20	8	28	" 15 " " 20	83	57	140
" 1 year	5	10	15	" 20 " over	244	69	313
" 2 years	14	5	19	Length of residence not stated	96	10	106
" 3 " "	12	10	22				
" 4 " "	12	7	19				
" 5 " and under 10	43	42	85	Total Deaths	2,098	1,545	3,643

(c) *Death Rates.* The preceding table and the table on page 977 show that among persons who have lived less than five years in Australia, 775 deaths occurred, and of these 103, or 13.3 per cent., were due to tubercular diseases.

In order to show the prevalence of tuberculosis in the several States, the death rates from tubercular diseases are given in the following table, together with the proportion which deaths from tuberculosis bear to 10,000 deaths from all causes:—

TUBERCULOSIS (ALL FORMS).—DEATH RATES (a) AND PROPORTION OF TOTAL DEATHS, 1928.

State.	Death Rates (a) from Tuberculosis.			Proportion per 10,000 Deaths from all Causes.		
	Males.	Females.	Total.	Males.	Females.	Total.
New South Wales	61	47	54	593	564	585
Victoria	71	61	66	659	649	655
Queensland	48	33	41	490	429	465
South Australia	64	53	50	678	643	663
Western Australia	103	60	79	996	659	865
Tasmania	70	60	65	656	637	647
Northern Territory	101	..	71	462	..	423
Federal Capital Territory .. ..	..	29	12	..	625	213
Australia	65	50	58	633	589	614

(a) Number of deaths from tuberculosis per 100,000 of mean population.

(f) *Death Rates, Various Countries.* The following comparative table for various countries shows that Australia occupies a very favourable position as regards the death rate from this disease.

TUBERCULOSIS.—DEATHS PER 100,000 PERSONS LIVING, VARIOUS COUNTRIES.

Country.	Year.	Respiratory System.	All Forms.	Country.	Year.	Respiratory System.	All Forms.
Queensland ..	1928	38	41	Scotland ..	1928	68	97
New Zealand ..	1928	41	50	Great Britain and Northern Ireland ..	1927	79	99
South Australia	1928	49	50	Rumania ..	1926	(a)	99
Union of South Africa (Whites)	1927	35	51	Quebec (Canada)	1928	102	121
New South Wales	1928	48	54	Sweden ..	1928	(a)	126
Ontario (Canada)	1928	47	57	Italy ..	1927	99	134
Australia ..	1928	51	58	Switzerland ..	1928	101	135
Ceylon ..	1928	(a)	63	Greece ..	1924	120	138
Tasmania ..	1928	50	65	Uruguay ..	1926	126	140
Victoria ..	1928	58	66	Northern Ireland	1927	103	141
Denmark ..	1927	61	78	Irish Free State	1927	115	146
Western Australia	1928	71	79	Spain ..	1927	123	153
Canada (including Quebec) ..	1928	67	81	France ..	1926	140	164
United States (Registration Area)	1927	71	81	Norway ..	1926	127	164
New York State	1928	74	83	Austria ..	1927	(a)	166
Netherlands ..	1928	61	84	Japan ..	1927	139	195
Egypt ..	1927	66	85	Czecho-Slovakia	1927	174	195
Germany ..	1928	(a)	88	Hungary ..	1927	210	238
England and Wales	1928	76	93	Finland ..	1927	214	249
Prussia ..	1927	83	96	Chile ..	1927	239	260
Belgium ..	1927	68	97	Bulgaria ..	1927	247	314

(a) Not available.

(xvi) *Cancer and other Malignant Tumours.*—(a) *General.* The number of deaths from cancer has increased continuously to 6,010 in 1928. Of the deaths registered 3,120 were of males, viz., 1,196 in New South Wales, 911 in Victoria, 432 in Queensland, 305 in South Australia, 191 in Western Australia, 81 in Tasmania, 3 in the Northern Territory, and 1 in the Federal Capital Territory, while 2,890 were of females, viz., 1,083 in New South Wales, 961 in Victoria, 336 in Queensland, 271 in South Australia, 154 in Western Australia, and 85 in Tasmania.

(b) *Type and Seat of Disease.* Tables showing the type and seat of disease, in conjunction with age, and with conjugal condition, of the persons dying from cancer in 1928 will be found in Bulletin No. 46 of "Australian Demography." A summary regarding type and seat of disease for the year 1928 is given hereunder:—

DEATHS FROM CANCER.—TYPE AND SEAT OF DISEASE, AUSTRALIA, 1928.

Type of Disease.	Males.	Females	Persons.	Seat of Disease.	Males.	Females	Persons.
Carcinoma ..	2,061	2,019	4,080	Stomach and liver ..	1,333	832	2,165
Cancer ..	422	398	820	Peritoneum, intes-			
Malignant disease ..	246	201	447	tines and rectum	507	499	1,006
Sarcoma ..	143	128	271	Female genital			
Epithelioma ..	159	47	206	organs ..	..	557	557
Malignant tumour	38	48	86	Breast ..	..	498	498
Rodent ulcer ..	31	22	53	Buccal cavity ..	346	27	373
Scirrhus ..	1	8	9	Skin ..	109	60	169
Neoplasm ..	4	6	10	Other organs ..	825	417	1,242
Hypernephroma ..	15	13	28				
Total Deaths ..	3,120	2,890	6,010	Total Deaths ..	3,120	2,890	6,010

(c) *Ages at Death.* The ages of the 6,010 persons who died from cancer in 1928 are given in the following table, which shows that while the ages below 35 are not immune from the disease, the great majority of deaths occurred at ages from 35 upwards, the maximum being found in the age-group 65 to 70:—

DEATHS FROM CANCER.—AGES, AUSTRALIA, 1928.

Ages.	Males.	Females	Total.	Ages.	Males.	Females	Total.
Under 15 years ..	22	15	37	60 years and under 65	530	413	943
15 years and under 20	6	4	10	65 " " 70	604	434	1,038
20 " " 25	9	12	21	70 " " 75	523	332	855
25 " " 30	15	22	37	75 " " 80	309	281	590
30 " " 35	25	46	71	80 " " 85	147	126	273
35 " " 40	47	89	136	85 years and over	66	75	141
40 " " 45	80	155	235	Unspecified ..	3	..	3
45 " " 50	154	256	410				
50 " " 55	238	291	529	Total Deaths ..	3,120	2,890	6,010
55 " " 60	342	339	681				

(d) *Occupations.* A tabulation in summarized form of occupations of the males who died from cancer in 1928 is given hereunder :—

OCCUPATION OF MALES WHO DIED FROM CANCER.—AUSTRALIA, 1928.

Occupation.	No. of Male Deaths.	Occupation.	No. of Male Deaths.
PROFESSIONAL CLASS—		INDUSTRIAL CLASS—	
Government, Defence, Law ..	63	Art and Mechanic Productions	140
Others	93	Textiles and Fibrous Materials	66
DOMESTIC CLASS—		Food and Drinks	44
Board and Lodging	52	Animal and Vegetable Substances	19
Others	43	Metals and Minerals	61
COMMERCIAL CLASS—		Fuel, Light and Energy	12
Property and Finance	45	Building and Construction	190
Art, Mechanic, and Textile Products	26	Others	703
Food and Drinks	70	AGRICULTURAL PASTORAL, MINING, ETC., CLASS—	
Animal and Vegetable Substances	7	Agricultural	432
Fuel, Light and Metals	7	Pastoral	132
Merchants and Dealers	95	Mining and Quarrying	124
Others	188	Others	30
TRANSPORT AND COMMUNICATION CLASS—		INDEPENDENT MEANS	68
Railway Traffic	87	DEPENDENT	31
Road and Tramway Traffic	91	OCCUPATIONS UNSPECIFIED	120
Sea and River Traffic	68	TOTAL MALE DEATHS	3,120
Others	13		

(e) *Death Rates.* The following table shows the death rates and the proportion per 10,000 deaths from cancer in each State for the year 1928.

DEATHS FROM CANCER.—RATES(a) AND PROPORTIONS, 1928.

State or Territory.	Death Rates (a) from Cancer.			Proportion of 10,000 Total Deaths.		
	Males.	Females.	Total.	Males.	Females.	Total.
New South Wales	97	91	94	937	1,095	1,006
Victoria	105	109	107	971	1,155	1,057
Queensland	90	71	84	916	1,030	963
South Australia	102	97	100	1,077	1,170	1,119
Western Australia	88	84	85	857	1,091	948
Tasmania	77	80	78	718	847	779
Northern Territory	101	..	71	462	..	423
Federal Capital Territory	22	..	12	323	..	213
Australia	97	94	96	941	1,102	1,012

(a) Number of deaths from cancer per 100,000 of mean population.

(f) *Comparison with Tuberculosis.* In recent years the death rate from tuberculosis has shown a tendency to decrease, while that from cancer has displayed an almost continuous increase. The table hereunder shows that for each of the years under review the death rate for cancer has been greater than that from tuberculosis, the excess varying from 32 per 100,000 persons in 1924 to 38 in 1928. During the whole period the mortality of both sexes from cancer was always greater than that from tuberculosis.

TUBERCULOSIS AND CANCER.—DEATH RATES(a) AUSTRALIA, 1924 TO 1928.

Year.	Death Rate (a) from Tuberculosis.			Death Rate (a) from Cancer.		
	Males.	Females.	Total.	Males.	Females.	Total.
1924	71	51	61	96	91	93
1925	65	50	58	97	88	92
1926	67	50	59	97	92	94
1927	64	47	56	93	93	93
1928	65	50	58	97	94	96

(a) Number of deaths per 100,000 of mean population.

(g) *Death Rates, Various Countries.* The following table shows the Australian death rate from cancer in comparison with that for other countries:—

CANCER.—DEATHS PER 100,000 PERSONS LIVING, VARIOUS COUNTRIES.

Country.	Year.	Rate.	Country.	Year.	Rate.
Ceylon	1928	10	United States (Regis- tration Area) ..	1927	96
Greece	1924	19	New Zealand	1928	99
Egypt	1927	20	Irish Free State ..	1927	105
Rumania	1926	30	Prussia	1927	105
Chile	1927	49	Ontario (Canada) ..	1928	107
Italy	1927	59	Czecho-Slovakia ..	1927	109
Bulgaria	1927	65	Northern Ireland ..	1927	118
Finland	1927	65	Norway	1926	119
Spain	1927	70	Netherlands	1928	120
Japan	1927	70	Germany	1928	126
Union of South Africa (Whites)	1927	73	New York State	1928	126
Uruguay	1926	76	Sweden	1925	130
Quebec (Canada) ..	1928	77	Switzerland	1928	137
France	1926	84	Great Britain and Northern Ireland ..	1927	138
Belgium	1927	87	Denmark	1927	140
Canada (including Quebec)	1928	88	Scotland	1928	141
Hungary	1927	92	England and Wales ..	1928	143
Australia	1928	96	Austria	1927	148

(xvii) *Meningitis.* The deaths during 1928 from meningitis numbered 261, of which 114 occurred in New South Wales, 61 in Victoria, 40 in Queensland, 22 in South Australia, 11 in Western Australia, and 13 in Tasmania.

(xviii) *Cerebral Hæmorrhage, Embolism and Softening of the Brain.* The deaths under this heading have increased in number during the period under review. The figures for 1928 are made up as follows :—Cerebral hæmorrhage and apoplexy (including cerebral hæmorrhage, etc., associated with arterio-sclerosis), 1,351 males, 1,482 females; cerebral embolism, 23 males, 42 females; cerebral thrombosis, 170 males, 212 females; and softening of the brain, 43 males, 38 females.

(xix) *Diseases of the Heart.* The number of deaths in 1928 was 8,737, viz., 4,834 males and 3,903 females. Of the 8,737 deaths, 47 were attributed to pericarditis, 349 to acute endocarditis and myocarditis, 529 to angina pectoris, and 7,812 to other diseases of the heart. Of these deaths, New South Wales contributed 2,128 males and 1,714 females; Victoria, 1,281 males and 1,141 females; Queensland, 676 males and 418 females; South Australia, 333 males and 276 females; Western Australia, 252 males and 195 females; Tasmania, 157 males and 156 females; Northern Territory, 3 males and 1 female; and Federal Capital Territory, 4 males and 2 females. The death rates and proportions per 10,000 deaths in 1928 were as follow :—

DEATH RATES(a) FROM DISEASES OF THE HEART AND PROPORTION OF 10,000 TOTAL DEATHS, AUSTRALIA, 1928.

State or Territory.	Death Rates (a) from Diseases of the Heart.			Proportion of 10,000 Deaths.		
	Males.	Females.	Total.	Males.	Females.	Total.
New South Wales	172	144	158	1,667	1,732	1,696
Victoria	147	130	138	1,365	1,371	1,368
Queensland	141	98	120	1,434	1,282	1,372
South Australia	111	99	105	1,176	1,192	1,183
Western Australia	117	110	112	1,131	1,382	1,228
Tasmania	149	146	148	1,392	1,554	1,468
Northern Territory	101	80	95	462	1,667	563
Federal Capital Territory	86	59	73	1,290	1,250	1,277
Australia	150	127	139	1,459	1,488	1,473

(a) Number of deaths from diseases of the heart per 100,000 of mean population.

(xx) *Acute Bronchitis.* Deaths from bronchitis are classified under the following headings :—(a) Acute, (b) chronic, (c) unspecified, under five years of age, and (d) unspecified, five years and over. For the purpose of the abridged classification, (a) and (c) are treated as "acute," and (b) and (d) as "chronic" bronchitis. Acute bronchitis caused 300 deaths in 1924; 260 in 1925; 248 in 1926; 344 in 1927; and 260 in 1928, viz., 145 males and 115 females.

(xxi) *Chronic Bronchitis.* The deaths from this cause in 1928 numbered 753, viz., 409 males and 344 females, which was lower than the average for the previous four years.

(xxii) *Pneumonia.* The deaths from pneumonia during 1928 were 2,953—1,757 males and 1,196 females—which is 20.0 per cent. higher than the average, 2,460, for the previous four years.

(xxiii) *Other Diseases of the Respiratory System.* Deaths under this heading in 1924 numbered 2,742; in 1925, 2,522; in 1926, 2,534; in 1927, 2,767; and in 1928, 2,762. The total for 1928 is made up as follows, viz. :—Diseases of the nasal fossae, 16; diseases of the larynx, 43; broncho-pneumonia, 1,718; capillary bronchitis, 14; pleurisy, 203; pulmonary congestion and apoplexy, 318; gangrene of the lungs, 16; asthma, 140; pulmonary emphysema, 16; chronic interstitial pneumonia, 19; and other diseases of the respiratory system (tuberculosis excepted), 59.

(xxiv) *Diseases of the Stomach (Cancer excepted).* In 1928 this heading includes ulcer of the stomach, 167 males, 66 females; ulcer of the duodenum, 81 males, 18 females; and other diseases of the stomach (cancer excepted), 76 males, 87 females; a total of 495.

(xxva) *Diarrhœa and Enteritis (Children under two years only).* The number of deaths due to these causes was 1,616 in 1928, an increase of 21.5 per cent. compared with the previous year. During 1928, 8,431 children died before reaching their second

birthday, and of these 1,616, or 19.2 per cent., died from diarrhoea and enteritis. The ages of children dying from these diseases during the first year of life will be found on page 973.

The number of deaths (under 2 years of age), the death rates, and proportions of 10,000 deaths due to diarrhoea and enteritis are given below :—

DEATHS, DEATH RATES(a), ETC., DIARRHOEA AND ENTERITIS (UNDER 2 YEARS OF AGE).—AUSTRALIA, 1928.

State.	Number of Deaths from Diarrhoea and Enteritis. (Under 2 years of age.)			Death Rates (a) from Diarrhoea and Enteritis. (Under 2 years of age.)			Proportion of 10,000 Deaths.		
	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.
New South Wales	414	358	772	33	30	32	324	362	341
Victoria ..	231	197	428	27	22	24	246	237	242
Queensland ..	82	72	154	17	17	17	174	221	193
South Australia ..	44	44	88	15	16	15	155	190	171
Western Australia	67	57	124	31	31	31	301	404	341
Tasmania ..	28	17	45	27	16	21	248	169	211
Federal Capital Territory ..	4	1	5	86	29	62	1,290	625	1,064
Australia ..	870	746	1,616	27	24	26	262	284	272

(a) Number of deaths from these diseases per 100,000 of mean population.

(xxvb) *Diarrhoea and Enteritis (2 years and over)*. The number of deaths from the same causes in older ages, viz., 519, compared favourably with the average of 498 for the period 1924 to 1927.

(xxvi) *Appendicitis and Typhlitis*. Deaths under this heading numbered 408 in 1914, 438 in 1925, 476 in 1926, 483 in 1927, and 470 in 1928; the total for the last year included 310 males and 160 females.

(xxvii) *Hernia, Intestinal Obstruction*. The deaths under this heading have not varied greatly from year to year, the number registered in 1928 being 539, viz., hernia, 143, and intestinal obstruction, 396.

(xxviii) *Cirrhosis of the Liver*. The deaths from this cause during 1928 numbered 339, and include 30 deaths from alcoholic cirrhosis.

(xxix) *Acute and Chronic Nephritis*. The number of deaths attributable to these diseases shows a considerable increase on the number for 1924. In 1924 there were 2,893 deaths; in 1925, 2,978; in 1926, 2,989; in 1927, 3,098; and in 1928, 3,189, viz., 1,789 males and 1,400 females. Of the deaths registered in 1928, 175 were ascribed to acute nephritis, and 3,014 to chronic nephritis, of which 1,244 deaths occurred in New South Wales; 954 in Victoria; 548 in Queensland; 235 in South Australia; 163 in Western Australia; 42 in Tasmania; 1 in Northern Territory; and 2 in the Federal Capital Territory.

(xxx) *Non-Cancerous Tumours and other Diseases of the Female Genital Organs*. Deaths in 1924 numbered 199; in 1925, 165; in 1926, 166; in 1927, 179; and in 1928, 196. Included in the 196 deaths in 1928 were the following :—Cysts, etc., of the ovary, 42; salpingitis and pelvic abscess, 71; benign tumours of the uterus, 47; uterine hæmorrhage (non-puerperal), 3; and other diseases of the female genital organs, 33.

(xxxi) *Puerperal Septicæmia (Puerperal Fever)*. The 275 deaths from puerperal septicæmia during 1928 showed an increase over the previous four years, being 2.05 to every 1,000 live births. The corresponding rates during the preceding five years were :—1922, 1.43; 1923, 1.72; 1924, 1.96; 1925, 1.74; 1926, 1.64; and 1927, 2.15. The following table shows the death rate per 1,000 live births from puerperal causes in various countries.

CHILD BIRTH.—DEATHS PER 1,000 LIVE BIRTHS, VARIOUS COUNTRIES.

Country.	Year.	Rates per 1,000 Live Births from—		
		Puerperal Sepsis.	Other Puerperal Causes.	All Puerperal Causes.
Austria	1927	(a)	(a)	2.10
Sweden	1928	1.42	1.17	2.59
Italy	1927	0.93	1.77	2.70
Japan	1927	0.93	1.86	2.79
Uruguay	1927	1.93	1.04	2.97
Norway	1926	0.83	2.18	3.01
Finland	1927	(a)	(a)	3.04
Hungary	1927	1.59	1.45	3.04
Denmark	1927	1.04	2.01	3.05
Netherlands	1928	0.93	2.44	3.37
Czecho-Slovakia	1927	1.97	1.60	3.57
Switzerland	1927	1.62	2.03	3.65
Egypt	1927	1.52	2.28	3.80
Spain	1927	2.23	1.63	3.86
England and Wales	1928	1.79	2.63	4.42
Great Britain and Northern Ireland	1927	1.62	2.80	4.42
Irish Free State	1927	1.28	3.23	4.51
South Australia	1928	1.75	2.98	4.73
Northern Ireland	1927	1.80	3.00	4.80
Union of South Africa (Whites)	1927	2.28	2.53	4.81
New Zealand	1928	2.06	2.87	4.93
France	1926	2.00	3.00	5.00
Rumania	1926	2.08	3.08	5.16
Quebec (Canada)	1928	1.75	3.56	5.31
Canada (including Quebec)	1928	1.85	3.76	5.61
Belgium	1927	3.08	2.63	5.71
New York State	1928	1.45	4.29	5.74
Prussia	1927	3.03	2.73	5.76
Chile	1927	1.96	3.81	5.77
Ontario (Canada)	1928	1.75	4.02	5.77
Victoria	1928	1.88	4.03	5.91
New South Wales	1928	2.32	3.63	5.95
Australia	1928	2.05	3.93	5.98
Bulgaria	1927	2.80	3.50	6.30
Queensland	1928	1.57	4.80	6.37
United States (Registration Area)	1927	2.50	4.00	6.50
Germany	1926	2.54	4.06	6.60
Western Australia	1928	2.30	4.36	6.66
Scotland	1928	2.42	4.56	6.98
Greece	1924	4.61	4.22	8.83
Ceylon	1927	6.48	11.02	17.50

(a) Not available.

(xxxiii) *Other Puerperal Accidents of Pregnancy and Confinement.* The deaths under this heading in 1924 numbered 473; in 1925, 530; 488 in 1926; 504 in 1927; and 527 in 1928. Included in the 527 deaths in 1928 were the following:—Accidents of pregnancy, 117; puerperal hæmorrhage, 103; other accidents of childbirth, 77; puerperal plegmasia alba dolens, embolus, sudden death, 66; puerperal albuminuria and convulsions, 158; and 6 deaths following childbirth.

(xxxiiib) *All Puerperal Causes.* The 802 deaths in 1928 under the two preceding headings correspond to a death rate of 26 per 100,000 females. It may be expressed in other terms by stating that 1 of every 165 women confined in 1928 died from puerperal causes. The corresponding ratios for married women were 1 of every 171, and for single women 1 of every 103. More detailed information will be found in a series of tables in Bulletin No. 46 "Australian Demography."

The ages of the mothers who died varied from 15 to 52 years as shown hereunder :—

DEATHS FROM PUERPERAL CAUSES.—AGES OF MOTHERS, AUSTRALIA, 1928.

Age at Death.	Married Women.	Single Women.	Total.	Age at Death.	Married Women.	Single Women.	Total.
15 years ..	1	..	1	33 years ..	42	..	42
16 " ..	1	2	3	34 " ..	38	1	39
17 " ..	2	4	6	35 " ..	45	..	45
18 " ..	8	4	12	36 " ..	32	..	32
19 " ..	10	6	16	37 " ..	35	1	36
20 " ..	13	7	20	38 " ..	37	1	38
21 " ..	14	4	18	39 " ..	23	1	24
22 " ..	22	3	25	40 " ..	25	..	25
23 " ..	25	5	30	41 " ..	27	..	27
24 " ..	20	5	25	42 " ..	17	..	17
25 " ..	26	1	27	43 " ..	16	1	17
26 " ..	35	6	41	44 " ..	12	..	12
27 " ..	35	2	37	45 " ..	8	..	8
28 " ..	47	2	49	46 " ..	1	..	1
29 " ..	29	..	29	47 " ..	4	..	4
30 " ..	28	2	30	49 " ..	1	..	1
31 " ..	28	3	31	52 " ..	1	..	1
32 " ..	33	..	33				
				Total Deaths	741	61	802

The total number of children left by the married mothers was 2,229, an average of 3.0 children per mother.

Thirty-four of the mothers who died had been married less than one year, 86 between one and two years, and 61 between two and three years. The duration of marriage ranged up to 32 years, apart from 4 cases in which the date of marriage was not stated. A tabulation, distinguishing the ages at marriage, will be found in Bulletin No. 46 "Australian Demography," which also includes a table, showing in combination the duration of marriage and previous issue.

(xxxiii) *Congenital Malformation, Debility, and Premature Birth.* The deaths under this heading in 1928 numbered 3,686, of which 3,613 were of children under one year of age. Of the deaths of children under one year of age 51 per cent. were due to those causes. The number of deaths for 1928 is given in the following table :—

DEATHS FROM CONGENITAL DEBILITY, ETC., AND MALFORMATION, 1928.

State or Territory.	Congenital Malformation.			Congenital Debility, Icterus, Sclerema.			Premature Birth, and Injury at Birth.		
	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.
New South Wales	128	116	244	131	103	234	594	429	1,023
Victoria ..	112	72	184	110	93	203	354	269	623
Queensland ..	59	46	105	64	50	114	166	136	302
South Australia	31	27	58	28	27	55	89	81	170
Western Australia	29	25	54	28	15	43	64	44	108
Tasmania ..	13	12	25	22	12	34	56	45	101
Northern Territory	1	..	1	1	..	1	..	..	..
Fed. Cap. Territory	..	..	..	..	..	..	3	1	4
Australia ..	373	298	671	384	300	684	1,326	1,005	2,331
Number of deaths under one year per 1,000 births	4.80	4.10	4.46	5.55	4.62	5.11	19.17	15.48	17.39

(xxiv) *Senility.* In 1928, 3,196 deaths were attributed to this cause, as follows :— 772 occurred in New South Wales, viz., 389 males and 383 females; 1,065 in Victoria, viz., 454 males and 611 females; 526 in Queensland, viz., 310 males and 216

females; 398 in South Australia, viz., 193 males and 205 females; 209 in Western Australia, viz., 111 males and 98 females; 216 in Tasmania, viz., 104 males and 112 females; 7 males in the Northern Territory; and 1 male and 2 females in the Federal Capital Territory.

Of the deaths described as due to senility, 11 males and 7 females were stated to be aged 100 years or over.

(xxxva) *Violent Deaths, Homicides.* Deaths from homicide in 1928 numbered 110, this figure being slightly higher than the average for the previous four years.

(xxxvb) *Other Accidental Deaths.* Deaths from accidents in 1928 numbered 3,484, compared with an average of 3,220 for the previous four years. Of the deaths in 1928, 1,315 occurred in New South Wales; 852 in Victoria; 531 in Queensland; 297 in South Australia; 270 in Western Australia; 93 in Tasmania; 10 in Northern Territory; and 5 in the Federal Capital Territory.

The following table shows the various kinds of violent deaths, including homicides, recorded in Australia for the year 1928:—

DEATHS FROM EXTERNAL VIOLENCE.—AUSTRALIA, 1928.

Cause of Death.	Males.	Females.	Persons.
Poisoning by food	14	8	22
Poisoning by venomous animals—			
(a) Snakebite	6	4	10
(b) Other	3	1	4
Other acute accidental poisonings (gas excepted) ..	47	40	87
Conflagration	16	5	21
Accidental burns (conflagration excepted) ..	109	129	238
Accidental mechanical suffocation	22	16	38
Accidental absorption of irrespirable or poisonous gas	28	11	39
Accidental drowning	427	71	498
Accidental injury by firearms	111	6	117
Accidental injury by cutting or piercing instruments	6	2	8
Accidental injury by fall	353	144	497
Accidental injury in mining or quarrying ..	49	..	49
Accidental injury by machinery	47	..	47
Accidental injury by other crushing—			
Railway accidents	144	24	168
Tramway accidents	39	12	51
Automobile accidents	702	180	882
Injuries by other vehicles	164	23	187
Aeroplane accidents	2	..	2
Other crushings	126	17	143
Injuries by animals (not poisoning)	18	3	21
Wounds of war	6	..	6
Starvation, thirst, fatigue	22	..	22
Excessive cold	7	1	8
Excessive heat	30	9	39
Lightning	4	..	4
Other accidental electric shocks	26	5	31
Homicide by firearms	16	16	32
Homicide by cutting or piercing instruments ..	4	10	14
Homicide by other means	36	17	53
Infanticide (murder of children under 1 year) ..	6	6	12
Fractures (cause not specified) .. .. .	..	1	1
Other external violence (cause specified) ..	108	22	130
Other external violence (cause unspecified) ..	3	..	3
Total Deaths	2,701	783	3,484
Death Rate per 100,000 of mean population	84	26	55

(xxxvi) *Suicide.—(a) General.* Deaths by suicide in 1928 showed an increase on the figures for each of the previous four years, the number in 1924 being 653, viz., 534 males and 119 females; in 1925, 700, viz., 569 males and 131 females; in 1926, 711, viz., 583 males and 128 females; in 1927, 740, viz., 598 males and 142 females; and in 1928, 777, viz., 635 males and 142 females.

(b) *Modes Adopted.* The modes adopted by persons who committed suicide in the years 1924 to 1928 were as follow :—

SUICIDES, MODES ADOPTED.—AUSTRALIA, 1924 TO 1928.

Mode of Death.	Males.		Females.		Persons.	
	Total of 4 years, 1924-27.	1928.	Total of 4 years, 1924-27.	1928.	Total of 4 years, 1924-27.	1928.
Poisoning	488	160	216	61	704	221
Poisonous gas	44	25	18	12	62	37
Hanging or Strangulation	339	99	89	25	428	124
Drowning	182	39	76	18	258	57
Firearms	697	181	33	7	730	188
Cutting or piercing instruments	420	97	50	11	470	108
Jumping from a high place	29	9	10	2	39	11
Crushing	50	18	14	3	64	21
Other Modes	35	7	14	3	49	10
Total	2,284	635	520	142	2,804	777

(c) *Death Rates.* The death rates from suicide and the proportion per 10,000 of total deaths are given in the following table :—

SUICIDE.—DEATHS, DEATH RATES(a), AND PROPORTION OF TOTAL DEATHS, 1928.

State or Territory.	Number of Deaths.			Death Rates (a) from Suicide.			Proportion of 10,000 Total Deaths.		
	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.
New South Wales	241	55	296	19	5	12	189	55	136
Victoria	152	51	203	17	6	12	162	61	115
Queensland	100	15	115	21	4	13	212	46	144
South Australia	60	8	68	20	3	12	212	35	132
Western Australia	62	8	70	29	4	18	278	57	192
Tasmania	20	5	25	19	5	12	177	50	117
Northern Territory .. .. .	..	..	..	..	..	..	..	..	..
Fed. Cap. Territory .. .. .	..	..	..	..	..	..	..	..	..
Australia	635	142	777	20	5	12	192	54	131

(a) Number of deaths from suicide per 100,000 of mean population.

(d) *Ages.* From the following table, which shows the ages of the persons who committed suicide in 1928, it will be seen that both extreme youth and extreme old age are represented :—

AGES OF PERSONS WHO COMMITTED SUICIDE.—AUSTRALIA, 1928.

Ages.	M.	F.	Total.	Ages.	M.	F.	Total.
15 years and under 20	10	9	19	60 years and under 65	62	5	67
20	25	42	55	65	70	8	51
25	30	41	61	70	75	2	22
30	35	47	56	75	80	9	11
35	40	65	83	80	85	5	6
40	45	60	76	85	90	5	5
45	50	82	98	Not stated	5	..	5
50	55	81	97	Total Deaths	635	142	777
55	60	58	65				

(e) *Occupations of Males.* The next table gives the occupations of the males who committed suicide in 1928 :—

OCCUPATIONS OF MALES WHO COMMITTED SUICIDE.—AUSTRALIA, 1928.

Occupation.	Deaths.	Occupation.	Deaths.
PROFESSIONAL CLASS—		INDUSTRIAL CLASS—	
Government, Defence, Law ..	12	Art and Mechanic Productions	19
Others	31	Textiles and Fibrous Materials	8
DOMESTIC CLASS—		Food and Drinks	7
Board and Lodging	9	Animal and Vegetable Sub-	
Others	9	stances	2
COMMERCIAL CLASS—		Metals and Minerals	14
Property and Finance	8	Fuel, Light and Energy	5
Art, Mechanic and Textile		Building and Construction	28
Products .. .. .	..	Others	182
Food and Drinks	17	AGRICULTURAL, PASTORAL,	
Animal and Vegetable Sub-		MINING, ETC., CLASS—	
stances	2	Agricultural	87
Fuel, Light, and Energy	4	Pastoral	20
Merchants and Dealers	17	Mining and Quarrying	17
Others	39	Others	7
TRANSPORT AND COMMUNICATION		INDEPENDENT MEANS	13
CLASS—		DEPENDENTS	5
Railways	12	OCCUPATION NOT STATED	19
Roads and Trams	24		
Sea and Rivers	10	Total	635
Others	8		

(f) *Death Rates, Various Countries.* The following comparative table for various countries shows that Australia occupies a very favourable position as regards the death rate from suicide.

SUICIDE.—DEATHS PER 100,000 PERSONS LIVING, VARIOUS COUNTRIES.

Country.	Year.	Rate.	Country.	Year.	Rate.
Greece	1924	1.7	Australia	1928	12.3
Irish Free State	1927	3.2	England and Wales	1928	12.4
Egypt	1927	3.2	Queensland	1928	12.6
Chile	1927	3.2	Sweden	1928	13.1
Quebec (Canada)	1928	3.7	United States	1927	13.3
Spain	1927	4.2	New Zealand	1928	14.5
Ceylon	1927	5.0	Belgium	1927	15.5
Norway	1926	6.3	Bulgaria	1927	15.8
Northern Ireland	1927	6.4	Denmark	1927	15.9
Netherlands	1928	6.8	New York State	1928	16.4
Rumania	1926	7.8	Finland	1927	17.1
Canada	1928	7.8	Western Australia	1928	17.5
Ontario (Canada)	1928	8.8	France	1926	19.0
Scotland	1928	9.7	Japan	1927	20.9
Italy	1927	10.4	Prussia	1927	24.5
Union of South Africa (a)	1927	11.4	Switzerland	1928	25.4
Uruguay	1927	11.5	Czecho-Slovakia	1927	25.6
Victoria	1928	11.6	Germany	1928	26.0
South Australia	1928	11.8	Hungary	1927	28.5
Tasmania	1928	11.8	Austria	1927	32.7
New South Wales	1928	12.2			
Great Britain and Nor-					
thern Ireland	1927	12.1			

(a) White population only.

(g) *Frequency.* The rates show a fairly general increase from 99.07 per million during the years 1871-75 to a maximum of 131.17 per million for the period 1911-15, after which there was a decline, the rate in 1928 standing at 123.61.

SUICIDES.—AUSTRALIA, 1871-75 TO 1928.

Period.	Number of Suicides.			Suicides per One Million of Persons Living—Average Annual Rate.			Suicides of Females to 100 Suicides of Males. Based on—	
	Males.	Females.	Persons.	Males.	Females.	Persons.	Absolute Figures.	Rates.
1871-75 ..	715	150	865	150.94	37.56	99.07	20.98	24.88
1876-80 ..	878	145	1,023	159.69	31.06	100.62	16.51	19.45
1881-85 ..	999	183	1,182	152.58	32.90	97.61	18.32	21.56
1886-90 ..	1,394	292	(a) 1,686	179.20	43.97	(c) 116.92	20.95	24.54
1891-95 ..	1,574	337	(b) 1,911	181.34	44.09	(d) 117.07	21.41	24.31
1896-1900	1,838	410	2,248	191.11	47.88	123.65	22.31	25.05
1901-05 ..	2,054	380	2,434	201.78	40.88	124.98	18.50	20.26
1906-10 ..	2,031	437	2,468	186.11	43.22	117.39	21.51	23.22
1911-15 ..	2,546	577	3,123	206.15	50.36	131.17	22.66	24.43
1916-20 ..	2,238	521	2,759	175.46	40.93	108.27	23.28	23.33
1921 ..	510	111	621	183.89	41.33	113.76	21.76	22.47
1922 ..	441	92	533	155.78	33.61	95.72	20.86	21.58
1923 ..	492	107	599	169.81	38.33	105.29	21.75	22.57
1924 ..	534	119	653	180.36	41.81	112.46	22.28	23.18
1925 ..	569	131	700	187.89	45.13	118.02	23.02	24.02
1926 ..	583	128	711	189.72	43.27	117.58	21.96	22.93
1927 ..	598	142	740	189.54	47.10	119.94	23.75	24.85
1928 ..	636	142	777	197.42	46.26	123.61	22.36	23.43

(a) 1,705 inclusive of Western Australian figures.

(b) 1,984 inclusive of Western Australian figures.

(c) 116.49 inclusive of Western Australian figures.

(d) 119.11 inclusive of Western Australian figures.

(xxxvii) *Other Diseases.* The number of causes included under this heading is very large, amounting to no less than 90 of the items shown in the detailed classification, and deaths were recorded under each of these with the exception of the following six causes:—Glanders, anthrax, rabies, soft chancre, other diseases of digestive system, and chyluria. The total number of deaths under "other diseases" in 1924 was 8,400, viz., 4,821 males and 3,579 females; in 1925, 7,924, viz., 4,640 males and 3,284 females; in 1926, 8,133, viz., 4,643 males and 3,490 females; in 1927, 8,389, viz., 4,657 males and 3,732 females; and in 1928, 8,386, viz., 4,740 males and 3,646 females. Some of the diseases included here account for very considerable numbers of deaths. Particulars for 1928 are shown in the following table:—

DEATHS FROM "OTHER DISEASES."—AUSTRALIA, 1928.

Causes.	M.	F.	Total.	Causes.	M.	F.	Total.
Anthrax	1		1	Other Diseases of the Nervous System	37	43	80
Tetanus	58	25	83	Diseases of the Eye	2	1	3
Mycoses	14	6	20	Diseases of the Ear	67	48	115
Syphilis	122	49	171	Aneurism	149	23	172
Gonococcus Infection	3	1	4	Arterio-sclerosis	573	329	902
Purulent Infection and Septicæmia	57	45	102	Other Diseases of the Arteries	37	18	55
Other Infectious Diseases	2		2	Embolism and Thrombosis (not cerebral)	96	68	164
Other Tumours (Tumours of the female genital organs excepted)	50	46	96	Diseases of the Veins	15	24	39
Acute Rheumatic Fever	119	129	248	Diseases of the Lymphatic System	8	5	13
Chronic Rheumatism and Gout	18	14	32	Hæmorrhage (without specified cause)	7	8	15
Rheumatoid and Osteoarthritis	34	75	109	Other Diseases of the Circulatory System	17	18	35
Gout	5	1	6	Diseases of the Mouth and its Associated Organs	19	13	32
Pellagra	1	2	3	Diseases of the Pharynx	46	45	91
Beri-beri	6		6	Diseases of the Oesophagus	6	5	11
Rickets	8	17	25	Ankylostomiasis	1	3	4
Diabetes	291	462	753	Intestinal Parasites	7	7	14
Pernicious Anæmia	102	116	218	Other Diseases of the Intestines	48	24	72
Other Anæmias and Chlorosis	23	20	43	Acute Yellow Atrophy of the Liver	4	8	12
Diseases of the Pituitary Gland	9	6	15	Hydatid Tumours of the Liver	35	18	53
Exophthalmic Goitre	9	87	96	Biliary Calculi	46	124	170
Other Diseases of the Thyroid Glands	5	42	47	Other Diseases of the Liver	100	116	216
Diseases of the Parathyroid Glands	1	2	3	Diseases of the Pancreas	27	40	67
Diseases of the Thymus Gland	21	12	33	Peritonitis (without specified cause)	71	70	141
Addison's Disease	10	13	23	Other Diseases of the Kidneys and their Adnexa	136	144	280
Diseases of the Spleen	11	3	14	Calculi of Urinary Passages	36	16	52
Leucæmia	59	54	113	Diseases of the Bladder	96	20	116
Hodgkin's Disease	28	26	54	Other Diseases of the Urethra, Urinary Abscesses, etc.	34	2	36
Acute and Chronic Alcoholism	95	26	121	Diseases of the Prostate	319		319
Chronic Lead Poisoning	17	3	20	Non-venereal Diseases of the Male Genital Organs	12		12
Other Chronic Mineral Poisoning	1		1	Non-puerperal Diseases of the Breast		3	3
Chronic Organic Poisonings	8		8	Gangrene	40	48	88
Other General Diseases	54	60	114	Furuncle	27	9	36
Cerebral Abscess	23	23	46	Phlegmon, Acute Abscess	62	49	111
Other Abscesses	51	38	89	Other Diseases of the Skin and Adnexa	25	35	60
Locomotor Ataxia	58	11	69	Non-tuberculous Diseases of the Bones	86	35	121
Other Diseases of the Spinal Cord	108	82	190	Other Diseases of the Joints (Tuberculosis and Rheumatism excepted)	11	8	19
Paralysis without specified cause	179	173	352	Amputation	1		1
General Paralysis of the Insane	102	10	112	Other Diseases of the Organs of Locomotion	2	1	3
Other Forms of Mental Alienation	37	55	92	Diseases of the Umbilicus	15	7	22
Epilepsy	108	76	184	Atletcæsis	120	89	209
Convulsions (non-puerperal)	2	2	4	Other Diseases peculiar to Infancy	83	59	142
Convulsions of Children under 5 years of age	84	65	149	Lack of Care (Infants)	3	3	6
Chorea	1	6	7				
Neuralgia and Neuritis	11	15	26				
Idiocy, Imbecility	11	10	21				
Cerebral Tumour	102	88	190				
Disseminated Sclerosis	42	25	67				
Paralysis Agitans	53	39	92				
				Total Deaths	4,740	3,646	8,386

(xxxviii) *Unspecified or Ill-defined Diseases.* The number of deaths included under this heading was 735 in 1924, 648 in 1925, 690 in 1926, 570 in 1927, and 603 in 1928, of which 412 were males and 191 females. The detailed classification shows these ill-defined diseases under two headings—sudden death, including syncope; and unspecified or ill-defined causes, of which the following are specimens:—Heart failure, asthenia, anasarca, atrophy, exhaustion, dropsy, ascites, and general œdema, etc. In 1928, the number of deaths which came under the first of these categories was 67, and under the second, 536. It is inevitable that cases will occur regarding which the available information is insufficient to permit of a clear definition of the fatal disease in the certificate of death. In the majority of cases, however, there is little doubt that more satisfactory certificates might have been given.

16. Causes of Deaths in Classes.—The figures in the preceding sub-sections relate to specific causes of death, and are of greater value in medical statistics than a mere grouping under general headings. The classification under fifteen general headings adopted by the compilers of the International Nomenclature is, however, shown in the following table, together with the death rates and proportions on total deaths pertaining to those classes :—

DEATHS, DEATH RATES(a), ETC., IN CLASSES.—AUSTRALIA, 1928.

Class.	Total Deaths.			Death Rates.(a)			Proportion of 10,000 Deaths.		
	M.	F.	Total.	M.	F.	Total.	M.	F.	Total.
1. Epidemic, Endemic, and Infectious Diseases	3,575	2,792	6,367	111	91	101	1,078	1,064	1,072
2. General diseases not included above	4,105	4,106	8,211	128	134	131	1,239	1,565	1,383
3. Diseases of the Nervous System and of the Organs of Sense	2,465	2,354	4,819	77	77	77	744	898	812
4. Diseases of the Circulatory System	6,081	4,742	10,823	188	154	171	1,835	1,807	1,823
5. Diseases of the Respiratory System	3,926	2,802	6,728	122	91	107	1,184	1,068	1,133
6. Diseases of the Digestive Organs	2,096	2,165	4,261	83	71	77	813	825	819
7. Diseases of the Genito-Urinary System and Adnexa	2,422	1,781	4,203	75	58	67	731	679	708
8. Puerperal Condition .. .. .	..	802	802	..	26	13	..	306	135
9. Diseases of the Skin and of the Cellular Tissue	154	141	295	5	5	5	47	54	50
10. Diseases of the Bones and Organs of Locomotion	100	44	144	3	1	2	30	17	24
11. Malformations	373	298	671	12	10	11	113	114	113
12. Early Infancy	1,931	1,463	3,394	60	48	54	582	558	572
13. Old Age	1,569	1,627	3,196	49	53	51	473	620	538
14. External Causes	3,336	925	4,261	104	30	68	1,007	352	717
15. Ill-defined Diseases	412	191	603	13	6	10	124	73	101
Total	33,145	26,233	59,378	1,030	855	945	10,000	10,000	10,000

(a) Number of deaths per 100,000 of mean population.

17. Ages at Death of Married Males and Females, and Issue.—Bulletin No. 46 "Australian Demography" contains a number of tables showing the age at marriage, age at death, duration of life after marriage, birthplaces, and occupations, in combination with the issue of married persons who died in Australia in 1928. A summary of those tables is given hereunder. Deaths of married males in 1928 numbered 18,582, and of married females, 17,336. The tabulations which follow deal, however, with only 18,090 males and 17,074 females, the information in the remaining 754 cases being incomplete. The total number of children in the families of the 18,090 males was 82,712, and of the 17,074 females, 82,662. The average number of children is shown for various age-groups in the following table :—

AGES AT DEATH OF MARRIED MALES AND FEMALES, AND AVERAGE ISSUE.—AUSTRALIA, 1928.

Age at Death.	Average Family of Males.	Average Family of Females.	Age at Death.	Average Family of Males.	Average Family of Females.
Under 20 years ..	1.00	0.62	70 to 74 years ..	5.41	5.82
20 to 24 years ..	0.84	1.08	75 ,, 79 ,, ..	6.00	6.46
25 ,, 29 ,, ..	1.34	1.54	80 ,, 84 ,, ..	6.45	6.60
30 ,, 34 ,, ..	1.95	2.55	85 ,, 89 ,, ..	6.97	6.53
35 ,, 39 ,, ..	2.41	3.00	90 ,, 94 ,, ..	7.15	6.83
40 ,, 44 ,, ..	2.77	3.51	95 ,, 99 ,, ..	7.00	6.09
45 ,, 49 ,, ..	3.30	3.65	100 years and upwards ..	7.88	5.38
50 ,, 54 ,, ..	3.62	3.65	Age not stated ..	4.62	3.00
55 ,, 59 ,, ..	3.91	4.04			
60 ,, 64 ,, ..	4.23	4.66			
65 ,, 69 ,, ..	4.72	5.18	All ages ..	4.57	4.84

The figures in the preceding table include the issue both living and dead, the proportion between them, taking the issue of deceased males and females together, being about 1,000 to 269. The totals are shown in the following table :—

ISSUE OF MARRIED MALES AND FEMALES.—AUSTRALIA, 1928.

Issue of Married Males.		Males.	Females.	Total.	Issue of Married Females.		Males.	Females.	Total.
Living ..		33,500	33,159	66,659	Living ..		31,628	31,993	63,621
Dead ..		9,007	7,046	16,053	Dead ..		10,741	8,300	19,041
Total ..		42,507	40,205	82,712	Total ..		42,369	40,293	82,662

18. Ages at Marriage of Deceased Males and Females, and Issue.—While the table giving the average families of married males and females naturally shows an increase in the averages with advancing ages at death, the following table, which gives the average families of males and females according to the age at marriage of the deceased parents, shows a corresponding decrease in the averages as the age at marriage advances :—

AGES AT MARRIAGE OF DECEASED MALES AND FEMALES, AND AVERAGE ISSUE.—AUSTRALIA, 1928.

Age at Marriage.	Average Family of Males.	Average Family of Females.	Age at Marriage.	Average Family of Males.	Average Family of Females.
Under 15 years ..	..	7.00	50 to 54 years ..	1.31	..
15 to 19 ,, ..	5.79	6.78	55 ,, 59 ,, ..	0.56	..
20 ,, 24 ,, ..	5.58	5.27	60 ,, 64 ,, ..	1.00	..
25 ,, 29 ,, ..	4.85	3.92	65 years and upwards ..	0.45	..
30 ,, 34 ,, ..	4.01	2.55	Age unspecified ..	4.85	5.05
35 ,, 39 ,, ..	3.25	1.64			
40 ,, 44 ,, ..	2.46	0.48			
45 ,, 49 ,, ..	1.77	0.24	All Ages ..	4.57	4.84

19. Duration of Life after Marriage of Males and Females.—The duration of life after marriage has been tabulated for males and females both in combination with the age at marriage, and with the total and average issue. The tables containing the results do not, however, lend themselves to condensation, and are, therefore, omitted here. They will be found in Bulletin No. 46 of "Australian Demography."

20. Birthplaces of Deceased Married Males and Females, and Issue.—The following table shows the birthplaces of married males and females who died in 1928, together with their average issue. No generalizations can, of course, be made in those cases in which the number of deaths was small, but where the figures are comparatively large, as in the case of natives of Australia, differences occur between the averages of the individual States, which appear inexplicable on any other ground than that of different age constitution of the locally born population of the various States due to the different dates of the foundation of settlement. Thus, New South Wales and Tasmania, owing to their early settlement, contain a larger number of locally-born inhabitants of advanced ages than Victoria and Queensland, in which colonization was begun almost fifty years after the foundation of New South Wales. It will be noted that the differences occur both in the male and female averages.

BIRTHPLACES OF DECEASED MARRIED MALES AND FEMALES, AND AVERAGE ISSUE.—AUSTRALIA, 1928.

Birthplace.	Married Males.		Married Females.		Birthplace.	Married Males.		Married Females.	
	Deaths.	Average Family.	Deaths.	Average Family.		Deaths.	Average Family.	Deaths.	Average Family.
New South Wales ..	3,811	4.63	3,880	4.80	Switzerland ..	15	4.73	9	5.33
Victoria ..	3,705	3.92	3,577	4.16	Other European Countries ..	11	3.45	5	5.00
Queensland ..	681	4.00	839	3.94	British India and Ceylon ..	42	3.50	18	5.39
South Australia ..	1,407	4.69	1,265	5.02	China ..	69	2.55	1	4.00
Western Australia ..	162	4.19	190	4.54	Japan ..	6	2.00	..	..
Tasmania ..	678	5.00	790	4.93	Philippine Islands ..	2	2.00	1	1.00
Northern Territory ..	3	2.33	2	3.00	Syria ..	9	6.00	5	3.40
Federal Capital Territory ..	3	5.67	..	..	Other Asiatic Countries ..	9	4.44	..	..
New Zealand ..	196	3.45	128	3.07	Mauritius ..	5	4.40	3	4.00
England and Wales ..	4,033	4.85	3,389	5.18	Union of South Africa ..	14	4.07	18	6.22
Scotland ..	1,010	4.87	902	5.29	Egypt ..	1	5.00	1	..
Ireland ..	1,192	5.29	1,446	5.69	Other African Countries ..	4	2.50	2	4.50
Other British Possessions in Europe ..	22	4.05	18	4.44	Canada ..	39	4.77	13	5.31
Austria ..	10	5.70	5	6.80	Other British Possessions in America ..	5	3.80	4	6.25
Belgium ..	4	2.00	4	1.25	United States ..	63	3.95	39	4.85
Czecho-Slovakia ..	1	1.00	..	..	Other American Countries ..	12	4.08	8	4.50
Denmark ..	80	4.85	36	5.31	Fiji ..	1	..	4	2.00
Finland ..	17	3.12	1	4.00	New Caledonia ..	..	..	3	4.00
France ..	27	3.74	14	4.36	Other Polynesian Islands ..	13	3.31	3	1.00
Germany ..	316	6.38	248	7.01	At Sea ..	52	6.12	7.3	6.51
Greece ..	22	2.55	9	4.00	Unspecified ..	51	4.86	41	3.54
Italy ..	96	3.86	27	4.11					
Jugo-Slavia ..	9	2.89	..	..			
Netherlands ..	14	4.93	5	6.00					
Norway ..	37	4.22	4	6.00					
Poland ..	21	4.14	13	4.62					
Russia ..	29	3.69	19	4.11					
Spain ..	7	5.71	4	4.50					
Sweden ..	74	3.69	8	3.63					
					Total ..	18,090	4.57	17,074	4.84

21. Occupations of Deceased Married Males, and Issue.—The following tabulation shows the average issue in combination with the occupation of deceased males.

OCCUPATIONS OF DECEASED MARRIED MALES AND AVERAGE ISSUE—AUSTRALIA, 1928.

Occupation.	Deaths of Married Males.	Average Family.	Occupation.	Deaths of Married Males.	Average Family.
PROFESSIONAL CLASS—			INDUSTRIAL CLASS—		
Government, Defence, and Law ..	480	4.06	Art and Mechanic Products ..	808	4.15
Others ..	685	3.73	Textiles and Fibrous Materials ..	374	4.47
DOMESTIC CLASS—			Food and Drinks ..	236	4.77
Board and Lodging ..	287	3.46	Animal and Vegetable Substances ..	95	4.18
Others ..	263	3.98	Metals and Minerals ..	449	4.84
COMMERCIAL CLASS—			Fuel, Light, and Energy ..	87	3.40
Property and Finance ..	278	3.32	Building and Construction ..	1,183	4.68
Art, Mechanic and Textile Products ..	201	3.54	Others ..	3,391	4.63
Food and Drinks ..	475	4.12	AGRICULTURAL, PASTORAL, MINING, ETC., CLASS—		
Animal and Vegetable Substances ..	85	3.92	Agricultural ..	2,668	5.82
Fuel, Light and Metals ..	55	4.27	Pastoral ..	755	5.23
Merchants and Dealers ..	592	3.88	Mining and Quarrying ..	795	5.01
Others ..	1,076	3.32	Others ..	135	4.88
TRANSPORT AND COMMUNICATION CLASS—			INDEPENDENT MEANS ..	464	5.46
Railways ..	540	4.54	DEPENDENTS ..	23	3.48
Roads and Trams ..	567	4.06	OCCUPATION NOT STATED ..	517	4.81
Sea and Rivers ..	383	3.52			
Others ..	143	3.89	Total ..	18,090	4.57

§ 4. Australian Life Tables.

Official Year Book, No. 20, pp. 962 and 969 to 973, contained a synopsis of the various Australian Life Tables, also comparisons with other countries of the expectation of life at various ages. Considerations of space, however, do not permit of their repetition herein.

§ 5. Graphical Representation of Vital Statistics.

(See Graphs pp. 963 to 968.)

1. **General.**—The progressive fluctuations of the number of births, marriages, and deaths are important indexes of the economic conditions and social ideals of a community. Graphs have accordingly been prepared which show these fluctuations. It should be remembered, however, that, normally, the increase of births and marriages should be proportional to the growth of population.

2. **Graphs of Annual Births, Marriages, and Deaths.**—The outstanding features of the graph representing births are:—An almost continuous rise in the numbers from 1860 to 1891; a decline till 1898, associated with the commercial crisis of 1891–93; a sharp fall in 1903 which accompanied a severe drought; an uninterrupted increase from 1903 to 1914, the total for 1914 being the highest recorded; a rapid decline until 1920, the result of war conditions. The figures for the last eight years show a tendency to greater stability.

The graph for marriages up to 1914 discloses approximately the same features as that for births—financial crises and droughts having a similar effect. The numbers for 1914 and 1915 showed a considerable increase over previous years. From 1916 to 1918 there was a rapid fall, the numbers being much below those of pre-war years. During 1919 and 1920 the recovery was very rapid, the total for the latter year being the highest ever recorded. The totals for 1923 to 1928 were not so favourable.

The characteristic feature of the graph of deaths is its irregular nature. On the whole, however, there is an increase which is due to the growth of population.

3. **Graphs of Annual Births, Marriages, and Death Rates, and Rate of Natural Increase.**—The graph of the birth rate indicates a well-marked decline throughout the whole period. This reduction of rate has been subject to fluctuations, there being two periods of arrested decline, viz., from 1877 to 1890, and from 1903 to 1912.

The variations in the marriage rates, though less abrupt than those in the birth and death rates, have ranged from a minimum of 6.08 per 1,000 which marked the culmination of a commercial depression in 1894 to a maximum of 9.62 per 1,000 in 1920.

On the whole, the graph for the death rate furnishes clear evidence of a satisfactory decline during the period. The graph brings into prominence six years in which the rates were very high when compared with adjacent years, viz., 1860, 1866, 1875, 1884, 1898, and 1919. Epidemics of measles were largely responsible for the high rates in the first five years, while influenza caused the increase during 1919.

The graph of natural increase shows roughly the same variations as that for the birth rate, but the influence of the death rate is indicated by the very low rates of natural increase for 1875, 1898, and 1919, which resulted from the exceptionally high death rates of those years.