## COMMON: EALTH BUREAU OF CENSUS AND STATISTICS

22ND SEPTEMBER.

#### ROJECTIONS OF FUTURE POPULATION OF AUSTRALIA

(In Millions)

(These projections are prepared for the (Queensland) Royal Commission on the Sugar Industry on the basis of data available in September, 1950. They are approximate and rounded off to the nearest hundred thousand). (See letter to the Commission dated 22nd September, 1950).

* ***		3		è		PROJECT	ION		F 8 ,	ž.		
		A .			В			C				
30th June	Of population at 30th June, 1950 (subsequent migration excluded)	Resulting from Net Immigration after 30th June, 1950 of 100,000 persons per annum (a)	Total	Of population at 30th June, 1950 (subsequent migration excluded)	Resulting from Net Immigration after 30th Jun 1950 of 100,00 persons per annum (a)	n 6. Total 0	f population at 0th June, 1950 (subsequent migration excluded)	Resulting from Net Immigration after 30th June, 1950 of 100,000 persons per annum (a)	Total	Of population at 30th June, 1950 (subsequent migration excluded)	Resulting from Net Immigration after 30th June, 1950 of 100,000 persons per annum (a)	Total
* *	(1)	(2)	(3)	(1)	(2)	(3)	(1)	(2)	(3)	(1)	(2)	(3)
1950	8-25	,	8.2	8.2	<b>-</b> :	8.2	8.2	over recommendation of the	8.2	8.2	<b>₩</b> .	8.2
1952	8.4	0.2	8.6	8.4	0.2	8.6	8.4	0.2	8.6	8.4	0.2	8.6
1955	8.4	O <sub>+</sub> 5.	9.2	8.7	0.5	9.2	8.7	0•5	9.2	8.7	0•5	9.2
1957	8.8	0.7	9.5	8.8	0.7	9.5	8.8	0.7	9.5	8.8	0.7	9.5
1960	9:1	1.1	10.2	9.0	71.1	10.1	8.9	1.0	9.9	8.9	1.0	9.9
1962	9•3	1.3	10.6	9•2	1.3	10.5	9.0	1.3	10.3	8.9	1.3	10.2
1965	9•5	1.7	11.2	9-3	1.7	11.0	9.1	1.6	10.7	9.0	1.6	10.6
1967	9.7	1.9	11.6	9•4	1.9	11.3	9.1	1.9	11.0	9.1	1.9	11.0
1970	9.9	2.3	12.2	9.6	2.3	11.9	9-3	2.2	11-5	9.1	2.2	11.3
1972	10.2	2.6	12.8	9-7	2.5	12.2	9.3	2.5	11.8	9.2	2.5	11.7
1975	10.5	3.0	13.5	9.8	2.9	12.7	9•5	2.9	12-4	9.2	2.8	12.0

(a) Estimated future populations resulting from net immigration at other levels may, on the same assumptions as to the sex and age distribution of migrants, be derived by varying the figures in Column (2) proportionately. For example, if net immigration is assumed to be 50,000 persons per annum after 30th June, 1950, the future populations from such migrants and their natural increase would be one-half of those shown above. Total populations in Column (3) will be the sum of the figures in Column (1) and in Column (2) as varied.

The ASSUMPTIONS made in calculating the above projections are -

Fertility - A - 1949 specific fertility rates assumed throughout.

B - 1949 specific fertility rates assumed to 1955, thence diminishing uniformly from 1949 rates in 1955 to 1939 specific fertility

rates in period 1970-75. C - 1949 specific fertility rates assumed constant from 1950 to 1955, and 1939 specific fertility rates assumed constant from

D - 1949 specific fertility rates assumed from 1950 to 1955; 1939 specific fertility rates in 1956 diminishing thereafter uniformly 1956 to 1975. by about 1 per cent per annum.

Mortality - 1946-1948 experience assumed throughout.

See note (a) above following the table. Calculation is based on 100,000 net immigration per annum as a CONVENIENT UNIT to facilitate pro rata calculation for any other unit or combination of units. Use of this convenient unit does not imply any view as to absorptive capacity or probable rate of net immigration. Sex and age distributions of recorded net migration for year 1949 assumed to apply to new migrants on arrival or departure. In order to facilitate the calculations as to natural increase from future migrants, the migration new migrants on arrival or departure. In order to facilitate the calculations as to natural increase from future migrants, the migration in each five-yearly period 1950-55, 1955-60 etc. has been assumed to take place in batches of 500,000 persons at the end of the respective new order in the capacity period 1950-55, 1955-60 etc. has been assumed to take place in batches of 500,000 persons at the end of the respective new order. periods, i.e. at 30th June of years 1955, 1960, etc. This understates such natural increase but the amount of such understatement is insignificant in relation to total projected population.

Note. The estimated population at 30th June, 1950, is based on the results of the 1947 Census and subsequent recorded net migration and natural increase to 30th June, 1950 (preliminary figures). The projected populations at later dates have been calculated at five-yearly intervals (30th June of years 1955, 1960, 1965 etc.). \* itamiolated

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# PROJECTIONS OF THE POPULATION OF AUSTRALIA 1955 TO 1975 (FIVE YEARLY INTERVALS)

The attached projections of the population of Australia were prepared in 1956 for the Inter-departmental Committee on the Retiring Age set up to review and report on problems associated with the employment of persons aged 60 years and over. Subsequent demand for information concerning prospective population growth has been substantial and the projections have been reproduced in mimeographed form to meet requests for data of this nature.

Users should note carefully the assumptions and the limitations of these projections as set out below.

Projections have been made separately for the two components -

- (i) The estimated population at 30th June, 1955, projected without regard to subsequent migration;
- (ii) The increment of population from a hypothetical level of 2000 net immigration of 100,000 persons per amount after 30th June, 1955.

No projections of the total population obtained by combining
(i) and (ii) have been included. It is to be stressed that such totals would have no significance in view of the fact that the level of migration assumed since 30th June, 1955, is purely hypothetical. This hypothetical figure of 100,000 persons per annum is only a convenient unit to facilitate pro-rata calculations for any other unit. Its use is not meant to imply any view as to absorptive capacity or probable rate of net immigration.

The forecasting of population movements is highly speculative, and has not been attempted in the present projections, which are purely hypothetical calculations of the components of population that would be attained if various assumptions were realised. It is not possible to forecast the forces determining population change, particularly over any length of time. Trends in natural increase and migration in Australia are influenced by many factors, such as economic conditions, Government policy, occurrence or fear of war, assurance of peace and the personal reactions of millions of individuals to changing circumstances.

The projections are not to be taken in any way as official estimates or forecasts by the Commonwealth Statistician. If quoted, they are to be referred to as hypothetical calculations in the preceding terms.

Two sets of projections ("A" and "B") have been made depending on the assumption as to fertility. Fertility and mortality experiences have been assumed at approximately current levels until June, 1960, and subsequently as described in the footnotes to the tables.

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## ESTIMATED AND PROJECTED POPULATION OF AUSTRALIA

1955 TO 1975

MALES

					·			,
. Age last	Estimate,			Projec	tions as at 30t	h June -	. 1	
Birthday	30th June	1960	196	5	19	70	197	5
(Years)	1955	A & B		B	A	В	A	Į.

#### (i) Exclusive of Migration Subsequent to 30th June, 1955

	•			and the second s		<b>3</b>		
0 - 4	502,532	497,931	506,639	454,838	557,588	439,286	631,138	427,741
5 - 9	481,642	499,112	494	4,665	503,315	451,775	553,930	436,404
10 - 14	377,656	479,814	49	7,244	492	,815	501,433	450,085
15 - 19	314,866	375,694	47	7,507	494	846	490	, 435
20 - 24	309,014	312,370	37	2,874	473	473,905		,109
25 <b>–</b> 29	370,135	306,429	309	9,747	369	369,741		,926
30 - 34	374,710	366,827		3,776	307,072		366,553	
35 - 39	328,178	370,681	36	3,047	300	644	303	,918
40 - 44	332,475	323,239		5,536	357	982	296	, 442
45 - 49	293,598	324,496	316	6,192		568	350	,128
50 - 54	247,591	282,005	31:	2,889	304	,847	344	,738
55 <b>–</b> 59	203,631	231,107		4,849	293	,854		, 241
60 - 64	176,082	182,233	200	3,649		,119	265	, 306
65 - 69	148,436	148,119		5,719		164	204	,184
70 - 74	96,700	114,465	110	5,406		,619	140	,152
<b>75 - 79</b>	57,651	64,738	79	9,329		,416 kg	. 84	,990
80 - 84	27,541	31,402	36,984		45, 356			,772
85 and over	14,613	13,902	11	6,704	19	,787	24	,094
Total	4,657,051	4,924,564	5,198,756	5,146,955	5,499,638	5,329,796	5,850,489	5,478,218

#### (ii) Net Immigration Subsequent to 30th June, 1955 at Assumed Rate of 100,000 Persons Per Annum

0 - 4	· · · · · · · · · · · · · · · · · · ·	29,830	63,860	58,738	96,518	79,841	131,867	95,708
5 - 9	-	33,840	63	,476	97,283	92,195	129,727	113,159
10 - 14		25,867		,587	89	,112	122,793	1 117,723
15 - 19	-	24,182	49	,929	83	486	112	,866
20 - 24	-	41,011		,008	90	90,563		,865
25 - 29	. ***	49,537	90	, 209	114,004		139,345	
30 - 34	=	34,096		,212	123,532		147,121	
35 - 39	***	21,371	55	,133		743	143	,647
40 - 44		17,180	**** **** * <b>38</b>	,276	A Section of the sect	576	Annie par de la company de la	7512
45 - 49	•	11,400	28	,230		,872		,460
50 - 54	- <del>1884</del> :	4,784	15	,800	32	,029	51	,943
55 - 59		2,851	7	, 365	17	,728	32	,973
60 - 64	<b>*</b> € <sub>5,5</sub> *	1,516		,101	8,185		17,560	
65 <b>–</b> 69	•••	802		,107	4, 318		7,817	
70 - 74	-	413	1,050		2,087		3,825	
75 - 79	•	177	465		908		1,631	
80 - 84	***	54	157		321		577 188	
85 and over	-	25	55		106		188	
Total	**	298,936	628,020	622,898	984, 371	962,606	1,368,717	1,310,920

(i) Represents the estimated population at 30th June, 1955, projected on the basis of the following assumptions: -

Fertility - Basis A: Average of 1952-54 age-specific fertility rates throughout;

Basis B: Average of 1952-54 age-specific fertility rates until 30th June, 1960, thereafter diminishing uniformly to 1939 rates in the period 1970-75.

Mortality - Rates of mortality contained in the 1946-48 Tables, suitably adjusted in the light of the latest information available, have been applied uniformly to each year to June, 1960; on the basis of mortality records over many years, lighter rates at all ages have been applied uniformly throughout the subsequent period.

(ii) Represents the increments from Oversea Migration on the convenient unit of 100,000 persons per annum (assuming the sex and age distributions recorded for net migration during the period 1952-54), together with natural increase calculated on the same assumptions as above for fertility and mortality.

Note: The assumptions above are to be carefully noted, and the projections to be interpreted and used in the light of the explanatory notes in the accompanying statement.

#### ESTIMATED AND PROJECTED POPULATION OF AUSTRALIA

#### 1955 TO 1975

#### FEMALES

Age Last	Estimate,								
Birthday	30th June,	1960	196	,	19	70	1975		
(Years)	1955	-A & B		В		B	A	3	
t anny and a maintain an	anassa,	7			· Aller Andrews				
		(T)	Exclusive of Mi	gration Subseque	nt to joth June.	<u>. 1955</u>			
0 - 4	481,737	477,023	485,108	435,432	533,891	420,617	604,315	409,563	
5 - 9	459,238	479,144	474	,557	482,600	433, 181	531,131	418,442	
10 - 14	362,496	458,116	478	,061	473,485		481,509	432,202	
15 - 19	299,017	361,672	457	281	477.	104	472,	619	
20 - 24	284,839	298,030	360	724	456	077	475,	843	
25 - 29	333,871	283,466	296	,887	359	348	454,	328	
30 - 34	351,689	331,823	282	,076	295	438	357,	599	
35 - 39	319,026	348,931	329	,763	280	324	293,	610	
40 - 44	315,711	315,687		,052	327	,037	278,	007	
45 - 49	268,514	311,000	311	,891	341	891	323,	.087	
50 - 54	230,330	261,598	304	009	304	,817	334,	134	
55 <b>-</b> 59	212,901	220,931	251	,673	292	480	293,		
60 - 64	198, 343	200, 282	208	,817	237	,917	276,502		
65 - 69	167,237	180, 263		,635	191,416		218,159		
70 - 74	117,655	142,889		280	159	,288	165,961		
75 <b>– 7</b> 9	77,694	90,306	112	,603	122	,908	125,513		
80 - 84	40,028	49,872		,512	75	,487	82,	,106	
85 and over	23, 314	25,959	33,858		44	,127	52,	772	
Total	4,543,640	4,836,992	5,133,787	5,084,111	5,455,635	5,292,942	5,820,404	5,463,656	
	(ii) 1	Net Immi <b>grat</b> ion	Subsequent to 3	Oth June. 1955 a	t Assumed Rate	of 100.000 Pers	ons per Annum	,	
						A			
0 - 4	**	28,898	61,469	56,565	92,740	76,771	126,586	91,963	
5 - 9	-	31,166		,922	92,324	87,446	123,434	107,547	
10 - 14	<del>***</del> *	22,029		,130	81,821		114,149	109,282	
15 - 19	-	16,440		,434	69,479		98,117		
20 - 24	-	18,278		,685	56,622		83	,586 107	
25 <b>- 29</b> 30 <b>- 34</b>		26,686 26,056		,909 533	61,253			107	
		26,956 20,285		,532	71,667 73,498		01	,930 ·	
35 - 39 40 - 44		15 428		,093 ,582	69	,169	NA NA A A AR	,522 ,353	
45 - 49		15,438 9,838	3, 98	,108	1 15	112	71	281	
50 <b>-</b> 54		5,350	1,4	082	45,012 29,911		19	375	
55 <b>-</b> 59		3,977	14,982 9,135		18	407	1 30	772	
50 - 54 55 - 59 60 - 64		2,934	9,135 6,705		18,407 11,584		20	356	
65 - 69	-	2,025			11,584 8,191		20,356 12,668		
70 - 74		1.237	4,731 3,009		5,359		8,362		
75 - 79		1,237 580	1,567		2,962		4,817		
80 - 84		113	•	510	1,173		2,108		
85 and over	-	34		105		336	754		
Total	*	232,264	494,608	489,704	784,508	763,661	1,103,277	1,047,900	

- (i) Represents the estimated population at 30th June, 1955, projected on the basis of the following assumptions: -
  - Fertility Basis A: Average of 1952-54 age-specific fertility rates throughout;
    - Basis B: Average of 1952-54 age-specific fertility rates until 30th June, 1960, thereafter diminishing uniformly to 1939 rates in the period 1970-75.
  - Mortality Rates of mortality contained in the 1946-48 Tables, suitably adjusted in the light of the latest information available, have been applied uniformly to each year to June, 1960; on the basis of mortality records over many years, lighter rates at all ages have been applied uniformly throughout the subsequent period.
- (ii) Represents the increments from Oversea Migration on the convenient unit of 100,000 persons per annum (assuming the sex and age distributions recorded for net migration during the period 1952-54), together with natural increase calculated on the same assumptions as above for fertility and mortality.
  - Note: The assumptions above are to be carefully noted, and the projections to be interpreted and used in the light of the explanatory notes in the accompanying statement.

### ESTIMATED AND PROJECTED POPULATION OF AUSTRALIA

#### 1955 TO 1975

PERSONS

Birthday									
	Estimate, 30th June,	1960	" silversomment	(4 <b>6</b>	4	O stations.	1975		
(Years)	1955	A & B	A	3		В	A	В	
*		(	i) Exclusive of l	figration Subseq	uent to 30th June	e, 1955			
0 = 4	984, 269	974,954	991,747	890,270	1,091,479	859,903	1,235,453	837,304	
5 - 9	940,880	978,256	969	,222	985,915	884,956	1,085,061	854,846	
10 - 14	740,152	937,930		5,305	966.	966,300		882,287	
15 - 19	613,883	737,366	93/	,788	971,950		982,942 963,0		
20 ,- 24	593,853	610,400		3,598	929.	929,982			
25 - 29	704,006	589,895	606	634	729,089		966,952 924,254		
30 - 34	726, 399	698,650	589	,852	602,510		724,152		
35 - 39	647,204	719,612	692	2,810	580,968		597,528		
40 - 44	648, 186	638,926		,588	685,		574,4		
45 - 49	562,112	635,496	628	3,083	699,		673,2	Ĭ <b>5</b>	
50 - 54	477,921	543,603	616	5,898	609,	664	678,8	72	
55 - 59	416,532	452,038		5,522	586,		579,450		
60 - 64	374,425	382,515		7,466	477,	036	541,808		
65 - 69	315,673	328, 382		354	369,	580	422,343		
70 - 74	214,355	257, 354	27	2,686	281,	907	306,113		
75 - 79	135,345	155,044		,932	203,		210,503		
80 - 84	67,569	81,274	91	7,496	120,1		127,8	78	
85 and over	37,927	39,861		50,562		63,914		56	
Total	9,200,691	9,761,556	10,332,543	10,231,066	10,955,273	10,622,738	11,670,893	10,941,874	
\$	(n)	Net Immigrati	on Subsequent to	30th June, 1955	at Assumed Rate	of 100,000 Perso	ons per Annum		
	*	2-22-23		\$					
0 - 4		58,728	125, 329	115,303	189,258	156,612	258,453	187,671	
5 - 9	****	65,006	12.	3, 398	189,607	179,641	253,161	220,706	
10 - 14 15 - 19	<b>-</b>	47,896 40,622		2,717 3,363	170, 152,	933	236,942 210,9	227,005	

0 - 4 1		70,120	127,329	117,303	109,270	170,012	270,473	iot*oti
5 - 9	****	65,006	123,39	}	189,607	179,641	253,161	220,706
10 - 14	**	47,896	112,711	7	170,9	933	236,942	227,005
15 - 19		40,622	88, 36	3	152,9	65	210,9	33
20 - 24	***	59, 289	99,69	3	147,1	85	211,4	51
25 - 29	-	76,223	135,110	3	175,2		222,4	
	and the state of t	61,052	136,74	La service and the second	195,1	199	235,0	
35 - 39	-	41,656	102,220		177,2	241	235,1	
40 - 44	-	32,618	73,85	}	133,7	145	207,8	85
45 - 49	-	21,238	53,33	}	93,8	384	152,7	
50 - 54	-	10,134	30,78	2	61,9	)40	101,3	18
55 - 59	-	6,828	16,50		36,1		65,7	
60 - 64	-	4,450	10,80	<b>S</b>	19,7	169	37,9	16
65 - 69	•	2,827	6,83	3	12,5	509	20,4	85
70 - 74	-	1,650	4,05		7.4	446	12,1	87
75 - 79	***	757	2,03	2	3,8	370	6,4	48
80 - 84	-	167	66			<b>194</b>	2,6	85
85 and over	-	59	. 16	)		142		42
Total	**************************************	531,200	1,122,628	1,112,602	1,768,879	1,726,267	2,471,994	2,358,820
	* +				*			*

- (2) Represents the estimated population at 30th June, 1955, projected on the basis of the following assumptions: -
  - Fertility Basis A : Average of 1952-54 age-specific fertility rates throughout;
    - Basis B: Average of 1952-54 age-specific fertility rates until 30th June, 1960, thereafter diminishing uniformly to 1939 rates in the period 1970-75.
  - Mortality Rates of mortality contained in the 1946-48 Tables, suitably adjusted in the light of the latest information available, have been applied uniformly to each year to June, 1960; on the basis of mortality records over many years, lighter rates at all ages have been applied uniformly throughout the subsequent period.
- (ii) Represents the increments from Oversea Migration on the convenient unit of 100,000 persons per annum (assuming the sex and age distributions recorded for net migration during the period 1952-54), together with natural increase calculated on the same assumptions as above for fertility and mortality.
  - Note: The assumptions above are to be carefully noted, and the projections to be interpreted and used in the light of the explanatory notes in the accompanying statement.