

The South Australian Economy in World War II

Brian Dickey

This essay began as a lecture to a seminar convened by the Historical Society of South Australia on 'The Homefront: South Australia in World War II', on 25 October 1987. It was subsequently published in JHSSA vol.16, 1988, pp.22-29, and is reproduced here in slightly altered format.

The aim of this brief survey is to set the scene with some data about scale and rate of socio-economic activity in South Australia from the mid 1930s to the late 1940s.

How many people were there? Table 1 reveals that at 31 December 1938 the population of South Australia was estimated to be 595 842, made up of 297 604 males and 298 238 females - a sex ratio of 1.002 females to males.

Table 1: Population

	Men	Women	Total
31 December 1938	297 604	298 238	595 842
31 December 1945	312 588	318 294	630 882

CYB

By 31 December 1945, after the war was over, the population had grown 5.9% to a total of 630 882, made up of 312 588 males and 318 294 females – a sex ratio of 1.018, an increase in the proportion of females of 159%. Speculating, one might infer wartime casualties plus the movement of men to work interstate, plus historic changes in the demographic pyramid, to explain that substantial increase in the sex ratio.

Next, let us ask, how urban was this population, or where did they live? Table 2 shows that, at the 1933 census, when we have firm data, 54% of the population lived in metropolitan Adelaide, 8.9% in other urban localities, and 37.1% in rural areas.

Table 2: Urbanity

year	metro	other urban	rural	total
1933	312 619	51 456	214 762	578 837
1947	382 454	65 911	196 007	644 372

Vamplew, 1987

In 1947, the proportions of a larger population were : metropolitan, 59.3%, other urban, 10.2%, rural 30.5%, a shift of 6.3% away from the land, with most of that shift being taken up by Adelaide. Notice too, that this shift included an absolute decline in the rural population of over 18 000 people.

Table 3 shows that, in 1933, of the population of 578 837, 187 323 men and 49 078 women were counted in the workforce (40.8%). In 1947, there were 211 124 men and 56 176 women working, a rise to 41.5% of the enlarged total population.

Table 3: `Workforce

	Male	Female	Total
1933	187 323	49 078	236 401

1947	211 124	56 176	267 300
------	---------	--------	---------

Vamplew, 1987

Women represented 8.5% in 1933, and 8.7% in 1947, an almost negligible increase. But as we shall see in a moment, there was a temporary wartime increase in women working.

When we turn to ask where did they work?, we find that we do not have fully disaggregated tallies, but we can find the numbers employed in factories, or manufacturing. Table 4 lists the figures. We can observe, first, that the pre-war proportion of the workforce employed in factories was about 18%. `By the end of the war, this proportion had risen to about 24% - or a 46% increase in the numbers employed in this sector of the economy.

Table 4: `Manufacturing workforce

	Male	% Male	Female
1940	45 050	80.6	7724
1941	50 844	78.8	10 772
1942	65 252	76.5	15 334
1943	72 751	72.3	19 958
1944	69 569	72.3	18 909
1945	65 472	74.9	16 416
1946	63 188	78.4	13 665

Vamplew, S.A.

Secondly, the males represented 81.6% and females 18.4% of the total in 1939; `during the war the proportion of males fell to 72.6% in 1943 and began a climb back to 78.4% in 1946.

Thirdly, the numbers employed in manufacturing peaked during 1943, both in total and of women, before falling again. Clearly these changes can be marked down to the demands of the war. Let us consider that briefly.

The process of wartime manufacturing expansion can be followed in the relevant two civil history volumes of the series on Australia in the War of 1939-1945, namely S.J. Butlin, *War Economy 1939-1942* (1955), and S.J. Butlin and C.B. Schedvin, *War Economy 1942-1945* (1977).

Within the national policy-making framework, South Australia was looked upon as a preferred site for new manufacturing enterprises because it was strategically safer, further away from possible threats. This view was strengthened by the pressure of the state government, pressing for a share of the new federal productive activity. The same view was put by the Western Australian and Tasmanian governments.

As a result by mid-1941, four of the 25 munitions factories had been established in South Australia; `these had become nine of 47 in early 1943. They included the Salisbury factory area (now Penfield), specifically created from scratch. Larger however were the Finsbury works, employing (at peak) 5341 people making cartridge cases, and the Hendon site, 2712 people producing 303 ammo at a maximum rate of 110 million rounds p.a.!

Nonetheless, there were difficulties. At first the war managers had to cope with ensuring adequate standards of precision in work. This meant relying on the existing skill base in the engineering industry in Sydney and Melbourne. Still, as I have just mentioned, factory production did go ahead in Adelaide.

But the next and most critical problem for South Australia was that it ran out of workers. The plans of 1942 to expand South Australian wartime production further were scrapped. There were just not enough people. The plans to forbid employment of women aged 19-26 in retail trade in Adelaide (July 1942) so that they might be compelled to work in munitions factories, were not enforceable because of questions of distance and accommodation.

Thirdly, the build-up of 1942-3 had to run down as supply exceeded demand. The peak employment of 12 033 people in South Australia at April 1943, which was 13% of the manufacturing workforce, fell away to 4352 by June 1945 (a fall of 63%): no doubt they were all gone by the end of that year.

The question remains, what happened to the purpose-built factories? Salisbury was something of a white elephant until WRE, a Commonwealth government agency, took it over, though never utilising its original specialist facilities efficiently. The Hendon site did have a manufacturing future with Phillips, though with increasing economic inefficiency which drove that company to leave South Australia in the 1980s.

Consider now, what did they produce? We can report the following volumes of production in Table 5. The sheep and cattle were numbers on the hoof, the others annual output. In these figures the dominance of the weather over increased efficiency or any other factor such as greater wartime output, is absolutely plain. Wheat farmers experienced an appalling 1940 season, and again in 1944 and 1945: indeed the figures for that year are hard to credit. Certainly the Adelaide rainfall tallies help us to understand what was happening. The city received about 70% of its average annual rainfall in 1940, and 74% and 77% in 1944 and 1945. I presume it was worse as to amount and timing in the wheat-growing sectors. For example, the South East only experienced a moderately dry season in 1944 and the farmers shifted back into sheep. Clearly other regions suffered worse conditions.

Table 5: Volume of rural production

	Sheep	Cattle	Wheat	Wine	Wool
	'000	'000	Tonnes	'000 litres	'000 kg
1935	7 946	335	860 454	59 206	37 063
1939	9 941	351	1 117 807	47 340	47 748
1940	10 263	377	485 972	48 004	48 374
1941	10 246	399	830 390	49 492	47 683
1942	n-a	n-a	n-a	n-a	n-a
1943	10 371	424	994 077	65 830	49 277
1944	10 360	415	563 112	62 260	52 374
1945	8 474	391	251 590	45 742	48 402
1946	6 787	374	572 457	87 845	33 456
1947	7 959	423	759 490	110 370	42 193

Vamplew, SA, p.303.

Are there any other trends? It does not seem so: rural production seems to have remained relatively stable, weather permitting, in this decade. Therefore it became more efficient, since fewer people worked on and lived off the farms.

We also have some values for this production, all expressed, I think, in current price terms. First, here is a run of data on the value of rural production (agricultural, pastoral and dairying) in Table 6.

Table 6: `Value of rural production (current prices, £m.)

1939	40
1943	57
1945	59
1947	88

Vamplew, 1987

Even after making some rough deflations for price shifts, i.e. inflation, and consumer indexes aren't much use, we find that rural production rose by roughly 50% in value in the decade, while during the war the relatively stable output also rose in total real value. Thus, rural productivity per head was more efficient than manufacturing, although it is possible the numbers of internees and the Land Army are missed in this data.

For shares of production in value terms we have less comprehensive data. Certainly I can report table 7. (The different total values for rural production as compared with those in table 6 I cannot explain.) The proportional shares of various sectors are shown. `Pastoral, agricultural, and dairying totalled 24% in 1935 and 23% in 1939.

Table 7: `Value of production by sector at current prices

	1935		1939
	%	£m	%
Pastoral	7.31	6343	9.23
Agricultural	12.34	6 311	9.18
Dairying	4.37	3 239	4.71
Mining	5.22	3 709	5.39
Construction	4.89	3332	4.85
Manufacturing	13.62	11 490	16.71
Private water transport	0.79	497	0.72
Government business	5.41	3517	5.12
Government services	5.18	3512	5.12
Property and finance	1.73	1032	1.5
Distribution	18.12	11981	17.43
Personal and professional	14.05	9 871	14.36
House rents	7.54	4 252	6.18
total		68 761	

Vamplew, SA

If we take manufacturing we find it represented 13.6% in 1935 and 16.7% in 1939. If the figures in the CYB for 1945 and 1946 are comparable, we could say that manufacturing value is 0.57 the size of rural value in 1935, 0.73 in 1939, 1.01 in 1945 and 0.82 in 1946.

That trend line, and it can be no more, for my sums are capable of all sorts of refinement, is the central fact of the economy in South Australia from the mid 1930s to the late 1940s and beyond.

Manufacturing was expanding its value of output from a bit over half to equal or nearly equal rural production.

But remember the employment figures: in per head terms manufacturing was not nearly so productive as rural production: jobs yes, productivity no.

On the question of earnings, we have two series. Table 8 reports minimum weekly wage rates for South Australia and for Australia, for men and for women. This data derived from the activities of labour economists in the arbitration system.

Table 8: Minimum wage rates per week (in shillings and pence)

	South Australia		Australia	
	Male	Female	Male	Female
1939	68s11d	49s7d	95s3d	52s8d
1945	114s5d	67s2d	120s4d	73s5d

CYB

From this we are reminded of the familiar fact that rates for women were officially set at between 56% and 58% of male rates throughout this period, with the exception of the small number of employment categories specifically declared to be open to women at the same rates, or near to the same rates, as men, for war purposes. What women actually got in South Australia is another matter, as Kay Rollison shows in her essay, 'Working women in South Australia during World war II', in *JHSSA* no.16, 1988, pp.54-62.

Secondly, we are reminded that South Australia wage rates were usually set below the national level: men in 1939, 93%; women, 94%; in 1945, men 95%, women 91%.

Thirdly, all wages had risen in current value terms, men in South Australia by 28.8%, women, 35.5%, while the national increases were 26.3% for men and a significant 39.4% for women.

We shall return to these figures after considering some cost deflators.

The second series (table 9) yields some average annual earning figures for those employed in manufacturing, where statisticians are interested in the factor costs of labor, materials, etc.

Table 9: Average annual earnings in manufacturing (£)

	South Australia		Australia	
	male	female	male	female
1935	380	161	405	178
1939	442	173	404	208
1944	630	341	685	345
1945	611	330	666	339
1947	663	339	690	377

Vamplew, 1987

Here there are several points to make. One is that work in factories was better paid than the arbitrated minimum wages. (For comparison, the male 1939 weekly minimum would yield a theoretical £231, and in 1945, £297, for a full 52 weeks.)

Second, the higher pressure for skilled labor in Sydney and Melbourne, and/or a higher level of achievement, meant higher average wages outside South Australia.

Third, the strikingly low averages for women in manufacturing as proportions of the male wage, 42% or 43% in 1935, emphasised their routine, production-line rather than skilled, input into manufacturing. The proportions rose to exceed 50% at the end of the war or later, presumably reflecting a slightly stronger bargaining power combined with more women working the whole year.

Fourth, obviously pay rose in current terms.

What did it cost these people to live in South Australia? We can deflate those wage rises by some indicators of consumer prices. Clearly, costs were rising, as both tables 10 and 11 reveal. The 38% increase in South Australian male earnings in manufacturing 1939-45 should be deflated by about 21% (both tables yield this figure as the increase in costs 1939-45). At the minimum wage rate levels, the cost of living clearly consumed most of the cash increase.

Table 10: Combined price index (1927-27 = 100)

1935	83.2
1939	92
1945	112
1947	118

Vamplew, 1987

Table 11: retail price numbers

			Adelaide	Six Capitals
	Food/Groc	Housing	Total	Total
1935	1394	1203	1360	1380
1939	1604	1452	1503	1526
1945	1792	1458	1828	1868

CYB

We should also recall that Commonwealth taxation reached down to the £204 p.a. level from 1942, meaning that the lowest paid workers gained little or nothing in real terms during World War II. Any wonder there was such enormous pressure nationally for increases in the basic wage and for shorter hours!

What part did government play in the South Australian economy during the war? Table 12 reveals a total state government expenditure rate which contracted in real terms during the war, but which began to expand in the late 1940s. The Commonwealth, of course, was expanding its expenditure rapidly in order to fight the war, which underlies table 13.

Table 12: S.A. Government: Public Debt, Income and Expenditure ('000£)

	1935	1939	1944	1945	1947
Public debt	118 448	121 943	122 751	120 964	136 568
<i>Income</i>					
Tax	3224	4116	1716	1911	2166
Business	3620	4214	7271	6875	6065

Land	186	201	268	242	257
Other	1878	2149	2438	2338	2565
Total	11 002	12304	15545	15560	17 192
<i>Expenditure</i>					
Debt service	5005	5130	5345	5341	5466
Business	3030	3808	6631	6335	8075
Other public works	345	1436	861	1111	1347
Social services	1812	2170	1835	2610	3093
Law & defence	364	433	504	521	615
Land	629	31	-132	450	364
Other	740	917	962	727	1413
Total	11 924	13 927	16 005	17 095	20 881

Vamplew, 1987

Table 13: `All Australian governments (,000 #)

	Income	Expenditure	%SA
1935	205 036	227 641	5
1939	241 713	268 433	5
1944	481 745	859 208	2
1945	541 736	811 923	2
1947	595 110	675 593	3

Vamplew, 1987

The role of Commonwealth funds as a proportion of total state government income was rising significantly, even after applying a rough 20% deflation. But when the fall in state tax receipts is taken into account, we find the state was being kept on a short rein through the war.

I have no intention of defending the statistician's categories here. Clearly 'business' income and expenditure will be affected by the emergence of the Housing Trust and ETSA, if they are included in these accounts, and I trust they were.

The puzzles of government finance are usually beyond me: thus in 1947 the government seems to have taken out £3 689 000 in 'profit', which no doubt was tucked away in a hollow log for future use. What is clear is that the volume of government activity doubled in the decade, though this is possibly less rapid than the growth at current prices of output in the private sector.

Perhaps we can say that Playford was well content. He had accepted the Wainwright concept, put in place by his predecessor Sir Richard Butler, of going with the pro-urban, pro-industrial trend in train since the mid-1930s. Manufacturing grew, employment, especially in Adelaide, grew, and the state's gross output grew. While the effort of government expanded sufficiently to facilitate this growth, that growth was held below the overall growth rate of the South Australian economy. The prudent orchard farmer turned state treasurer was not about to declare a dividend for the poor, for school children or harassed suburban dwellers. His notion of the state's role remained co-ordinative and facilitative. Private enterprise was the engine of prosperity. Alternative goals of equity or community development were firmly subordinated to sustaining the private sector of the economy at lowest cost.

Sources of statistical data:

CYB: Commonwealth Year Books

Vamplew, SA: W. Vamplew et al (eds), *South Australian Historical Statistics*, Historical Statistics Monograph 3, Sydney, History Project Incorporated, no date.

Vamplew, 1987: W. Vamplew (ed.), *Australians: Historical Statistics. Australians. A Historical Library*, Sydney, 1987.