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AN AUSTRALIAN TEST OF ECONOMIC AND POLITICAL MODELS
OF WELFARE STATE EXPENDITURES: 1945 - 1979

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ABSTRACT

This paper tests 'political' and 'economic' models of welfare expenditure with post-World War II Australian data. The major antecedents of welfare spending for the overall time period (1945-1979) appeared to be economic growth as mediated by the age of the population and program incrementalism. It was shown, however, that this view misleads rather than clarifies the influence of different factors during specific periods within the overall time series. A periodization of welfare spending was found to be more useful. The periodization analysis showed that the influence of politics on welfare spending is important. Right political strength was found to have a negative impact on spending levels and the equality of aged pensioner incomes. It was also shown that program incrementalism does not reduce inequality.

Introduction

One apparent contribution of causal modelling to research on the welfare state is that it isolates the factors which directly and indirectly explain the growth of welfare expenditures. To date, however, the conclusions drawn from this research have often been contradictory. One body of findings suggests that economic growth and its bureaucratic and demographic outcomes are the major determinants of increased welfare spending (Wilensky, 1975; Dye, 1976). Some of the evidence in support of this view adds that, once a high stage of development is reached, political factors also shape the direction and coverage of social security programs (Cutright, 1965, 1967a). Even in these studies, however, economic development remains the major determinant of welfarism. Other findings discount this growth/expenditure hypothesis. It is suggested that expenditure levels depend on the power of left of centre and reformist groups to re-allocate the products of growth (Castles and McKinlay, 1979).

This paper evaluates the usefulness of these analytical

models for explaining Australian welfare expenditures. The first section reviews a selected number of cross-national studies which compare the influence of developmental and political factors on welfare spending. This is followed with a brief description of the Australian Welfare State. The final section tests these views with post-World War II Australian data covering 34 years.

Studies on The Welfare State

The most influential support for the growth/expenditure thesis comes from Wilensky's (1975) cross national study of welfare effort among some sixty countries. Welfare effort (SWE) is operationalized as the ratio of cash transfers to the 'at risk' population over Gross National Product (GNP). Using time series and cross-sectional data Wilensky (1975:24) demonstrates '... that economic growth is the ultimate cause of welfare-state expenditure.' Ideology (the belief in equality), the nature of the political system (liberal/democratic vs totalitarianism) and military spending are not crucial predictors. What he does show is that although economic growth is the underlying cause, this is mediated by two outcomes of growth. These are demographic changes in the age of the population and program incrementalism which follows once welfare measures are initiated.

These findings guide Wilensky's (1976) later work on the sources of welfare backlash in high GNP nations.

'With economic growth, the percentage of aged goes up, which indirectly makes for an early and swift spread of social security programs, and this, in turn is expressed in big spending' (Wilensky, 1976:13).

In Wilensky's work political factors are found to be insignificant determinants of welfare expenditure. Castles and McKinlay (1979:157) describe this 'politics doesn't matter' approach as the 'prevailing orthodoxy' of 'convergence' which characterises sociological views of the antecedents of public policy. Regardless of diverse cultural and political traditions between nations, convergence implies that economic development and the 'logic of industrialization' lead to both a reduction of inequality and the emergence of similar social service strategies to rescue those unable to keep up with growth.

Two earlier studies by Cutright (1965, 1967a) support this 'developmentalist' view of welfarism. The first looks at the Social Insurance Program Experience (SIPE) of seventy six countries between 1930 and 1960. SIPE is defined as the sum, in years, of five major programs - work/injury,

sickness/maternity, old age/invalid, family allowances and unemployment benefits. Cutright (1965) shows that the level of economic development (measured by energy consumption) is the most powerful predictor of social security coverage ($r=.90$). When the level of economic development is controlled, Cutright also finds that among the highly developed nations a political representativeness index, PRI (the government's response to the needs of the people) correlates positively with welfare effort. He concludes, however, that the bearing of PRI on welfare coverage depends primarily on the 'level of economic development enjoyed by nations' (Cutright, 1965:547). This priority of growth is demonstrated in the finding that among the top developed nations, both democratic and non-democratic countries have similar levels of social security coverage (Cutright, 1965:547).

Cutright's (1967a) second study, which compares changes in welfare expenditure (SWE/GNP) in forty nations between 1957 and 1960, gives more credence to political factors. SIPE, the proportion of labour in industry (an indicator of modernization) and voter participation (a measure of equalitarian pressure within a polity) explain 93% of the variance in SWE/GNP. Economic development as measured by per capita GNP is again crucial as different patterns emerge in high and low developed nations. Among the former a regression analysis returns a beta score of .459 between PRI and SWE/GNP. In the latter, this coefficient reduces to .329 which implies that politics does matter, although to a smaller degree among lesser developed nations.

Are welfare expenditures redistributive? This question is not tested by Cutright or Wilensky although both argue social security outlays have a levelling effect (see Cutright, 1967b:189; Wilensky, 1975:86-119). This assertion is tested, in part, in Jackman's (1974) cross-sectional analysis of the welfare experience of sixty western and third-world countries. Jackman compares the impact of growth and political democratization on three dependent variables; SIPE, the Schutz coefficient of intersectorial inequality[1] and a Social Welfare Index (SWI). SWI and Schutz's coefficient are treated as final outcome measures of inequality and are analyzed in two separate models. In both cases economic development has a significant, direct influence on SIPE, SWI and Schutz. Paths from the political variable are not significantly different from zero and indicate that democratic performance has only a minor influence on welfare expenditures and equality. Jackman (1974:40) qualifies this and suggests that the impact of politics is mediated by SIPE which is a 'political variable' that taps legislative commitment 'in the social welfare domain'.

The work of Castles and McKinlay (1979) is an exception to the findings discussed so far. Using cross-sectional data

from 19 OECD countries they test the relations between development, public welfare commitment, and the extent to which the size of the vote for rightist parties is associated with a decline in public welfare. They find no relationship between levels of economic development and public welfare expenditure in democratic states.[2] Alternatively, they point to the importance of politics by showing that growth in the strength of parties on the right leads to a decrease in social welfare effort. According to Castles and McKinlay (1979:163) 'a necessary condition' for high levels of welfare provision is a party on the right which is small, disjointed and unable to block expansionist policies. This is the case as conservative parties traditionally restrict welfare legislation and thereby limit spending.

Hage and Hanneman's (1977) study of welfare in Britain, France, Germany and Ireland from 1880 to 1965 also reveals the importance of politics for assessing the responsiveness of governments to 'unmet need'. Composite indicators of supply (as a measure of economic development) and demand (an indicator of expenditures on need) are constructed and expressed as ratios of GDP per capita. An 'unmet need' score is used to assess the number of years it will take, at current expenditure levels, to meet present demand. The political variables are defined in terms of left and right strength with the former favouring expansion and the latter the restriction of the welfare sector. Like Wilensky's findings, the results indicate that resources and the level of demand influence spending. Politics is, however, vital as government responsiveness to 'unmet need' grows with increases in the strength of the left (Hage and Hanneman, 1977:27). Hage and Hanneman (1977:33) qualify these findings by cautioning that time series research on patterns of welfare expenditure needs to consider the 'historical specificity' of different countries, as well as short-run changes and reversals of spending within countries. In time series analyses there are certain periods where the pattern of relations do not reflect the trend suggested in the total series. These 'periodization' scores reflect important changes and reversals that are often obscured by the gross correlations of the overall series.

One possible reason for the disparate results in the studies reviewed is that different operational indicators are used as measures of similar theoretical constructs. There are other difficulties which suggest that care is needed when assessing the findings from these studies. For example, in Wilensky's work the political indicators tap systems of government but are poor measures of the dynamics of sectional politics within nation states. Grouping nations by levels of development is also problematic. A case in point is evident in Wilensky's (1975) group of the 22 richest countries. The \$2600 variation in per capita GNP

is more than three times the \$882 GNP per capita score of Ireland, the poorest of the wealthiest countries. This stratification factor conceals important differences in nations grouped into similar strata and hides the fact that Ireland, for example, seems to be closer to the GNP levels of some of the middle and low GNP countries. Most research also assumes linear and annual increments in the long-run expenditures on welfare. Given the causal relations posited in the developmental model one would anticipate short-run reversals or a periodization of welfare expenditures. Within political models, fluctuations also seem inherent as universalist and residualist philosophies expand and wane with changes in legislative authority in a society.

Serious methodological problems are also encountered as detrending, which is customary with times series data, seems to be consistently omitted (Ezekiel and Fox, 1959:325-47). Without detrending, successive time series observations remain dependent on earlier values. The 'least squares' solutions used by these authors are therefore questionable, as the assumption of uncorrelated residuals is violated. Dependent error terms in regression analysis lead to problems of serial correlation, autocorrelation and multicollinearity which all, but Jackman (1974), do not mention. Zald (1977:944) criticises Wilensky's (1975) failure to check for these methodological problems which seriously erode the precision of regression estimates. For Wilensky this is particularly troublesome as his theoretical and empirical argument rests on the strength of the coefficients in his regression model.

Welfare Coverage in Australia

Australian welfare dates back to the 1880's and '90's which remain the 'seedbed' of much of the social legislation developed in Australia (Mendelsohn, 1979:42). In these years self-help organisations were the main providers of welfare. State governments began their interventionist role by assisting these groups during recessions. It is notable that in this period there were also early and innovative advances in labor legislation and health and educational policies (Mendelsohn, 1979:42). Some of the factors which stimulated these governmental initiatives are listed by Jones (1980). He suggests that the highly urbanized population at the turn of the century forced governments into action. Jones (1980:8) also adds that at this time, state governments were already employing around 10% of the workforce, a factor which conditioned a pre-disposition to government intervention. By the early 1900's people began to look 'increasingly to the state rather than private agencies' (Roe, 1976:8). Graycar (1979:21) adds, however, that while Australia was a leading nation in welfare

legislation, in practice services were fashioned after an ameliorative and 'moralistic' approach to inequality.

At federation in 1901, welfare provisions were still the responsibility of State governments. The new Federal government gained greater authority with the introduction of selective age (1909) and invalid (1910) pensions. In 1912 the first universal benefit, maternity, allowances was introduced. The most significant welfare related legislation took place in 1907 with the introduction of the minimum wage. This considered the needs of people independently of market forces and constitutes 'a pre-condition of the welfare state' (Jones, 1980:19).

Welfare innovativeness waned during the inter-war years which Mendelsohn (1979:44) characterizes as an era of 'disappointment and ... loss of vision'. This stagnation was halted by World War II which led to a decade of 'unprecedented state experiment and intervention' (Roe, 1976:108,218). Basically a period of Labor rule, new services were implemented and expenditures increased by over 600 per cent between 1940 and 1950 (Kewley, 1965:135,307). In 1941, the final days before Labor assumed power, child endowment entitlements were introduced by the United Australia Party, the precursor of the current conservative, Liberal/Country Party Coalition. Many of the cash benefits and services presently available were later initiated by Labor in the war years. Some examples include widows pensions, unemployment, sickness, hospital and funeral benefits. The federal government also gained greater constitutional authority in welfare and by 1949, with the return of a non-Labor government, the Commonwealth superseded the states in social service expenditures (Partridge in Roe, 1976:218).

For the next 23 years, from 1949 until 1972, the Coalition consolidated and developed further welfare legislation during years of 'unexampled prosperity' (Mendelsohn, 1979:46). GDP rose steadily and increased six fold by the beginning of 1972 (Mendelsohn, 1979:62). There were also dramatic demographic changes brought on by large scale migration, declining death rates, an ageing population and the post-war baby boom. These demographic shifts pushed the levels of expenditure upwards.

The return of Labor under Whitlam in 1972, witnessed another rapid acceleration of public expenditure. Labor policies were aimed at achieving greater income equality (Scotton and Ferber, 1978:18) and removing residualist thinking which still characterized Australian welfare. Labor experienced numerous problems in implementing its more innovative schemes like the Australian Assistance Plan. The traditional ameliorative approach of government bureaucracies, an economic recession, high inflation, plus the lack of specific constitutional authority to legislate in certain areas of welfare, were among the most pressing of

these constraints.

A 'fight inflation first' policy guided the efforts of the Coalition after it resumed power in 1975. The universal policies of Labor were supplanted by a return to residualism which Graycar (1979:51) characterizes as a 'consistent move from reform to reaction'. While some of the advances of Labor were eroded, in the area of child endowment the Coalition introduced substantial payment increases which appear to be redistributive (Jones, 1980:104; Borrie, 1978).

Economic growth from 1945-1979 is the supply side of welfare state expenditures. On the demand side of this equation are demographic shifts in the character and size of the 'at risk' population. One would expect a relation between supply and demand although the shape and stability of this association needs to be tested. This is suggested in Wilensky's (1976) finding that Australia, once a world leader in welfare, has in the latter half of this century become a world laggard. The influence of sectional politics is one factor which may mediate the generosity and scope of Australian social security coverage. It appears that the Labor party, in alliance with bodies sensitive to the needs of workers, is a 'pacemaker' which is more likely to advance expansionism in welfare (Mendelsohn, 1979:394).

Methods

Data from 1945 to 1979 were used to create two sets of indicators to test the influence of developmental and political factors on Australian patterns of welfare expenditure.[3] The first cluster consisted of factor cost Gross Domestic Product (GDP) values as a measure of growth, the age of the population shown by changes in the proportion of the population of pensionable age (% AGED), and program incrementalism (SIPE). SIPE is the added score of the experience (in years) of six social welfare programs: age and invalid pensions, maternity allowances, sickness and unemployment benefits and child endowment (the Australian equivalent of family allowance which was included in Cutright's SIPE index). These cumulated scores were then multiplied by the annual cost incurred in administering the Commonwealth Social Security system from 1945-1979. This provided a measure which tapped both the program experience and expenditure dimensions of incrementalism.

Sectional politics was measured with two indicators of Right and Left strength. Right strength is the summed, standardized score of the following political dimensions:

1. the proportion of seats held by the Liberal/Country Party Coalition in the lower house,
2. the proportion of votes received by these parties,

3. the proportion of the workforce in farm and defense, and
4. the number of self-employed.

The Left index consisted of the following elements which were expressed as z scores and summed:

1. the proportion of Labor seats held in the lower house,
2. the proportion of votes received by Labor,
3. the proportion of the work force which is unionized, and
4. the number of unemployed.

Items 3 and 4 above are not usual measures of political strength. Following Hage and Hanneman (1977:15,16) they were included as further measures of 'the relative power of groups favoring an increased or decreased government role ...in ... social welfare effort.' A growth in the number of unemployed, for example, would result in greater pressure on governments to intervene with appropriate policy strategies.

Welfare expenditure (SWE) was defined as cash transfers by the Federal government to the 'at risk' population. Like Wilensky's measure it excluded outlays on health, housing and education. The cost of administering social security was also excluded. These annual expenditures were then expressed as a proportion of GDP.

A welfare output variable was also constructed to assess the equalitarian impact of expenditures on aged pensions. This measure (REL PEN) was calculated by expressing the annual rate of age pensions as a ratio of average male earnings.

Raw and detrended values were used in the analysis. Detrending followed the method of 'first differences' which amounted to calculating the difference between a measure from one year to the next and using over time fluctuations, rather than actual values in the analysis (Pindyck and Rubinfeld, 1976:111).

Findings and Discussion

Table 1 presents the raw and detrended correlations for the years 1945-1979. The raw scores between GDP and the correlates of growth (SIPE and % AGED) show strong to moderate positive relations with the welfare variables. Both Left and Right strength are moderately correlated with the welfare variables. Left is more strongly related to the equalitarian output measure (.416). Right strength, on the other hand, has little impact on pension levels but seems to have some influence on expenditure levels (.447) which in turn has a strong equalitarian influence (.864) on pensions.

The detrended scores are generally lower. The influence of GDP on the welfare measures reduces but is still quite strong. Scores for SIPE and % AGED are also lower but

retain a substantial impact on both expenditures and equality. A coefficient of .694 between SWE and pension levels (REL PEN) indicates that welfare expenditures continue to influence the income equality of aged pensioners. Detrending shows that the political variables are among the least important antecedents of welfarism. The correlations are either very low, or tend to disappear entirely.

TABLE 1

RAW AND DETRENDED CORRELATIONS
(in brackets) BETWEEN DEVELOPMENTAL,
POLITICAL AND WELFARE VARIABLES: 1945-1979

	(X1) GDP	(X2) LEFT	(X3) RIGHT(3)	(X4) %AGED	(X5) SIPE	(X6) SWE	(X7) REL PEN
X1	1.00	.096 (.029)	.421 (.173)	.973 (.606)	.969 (.931)	.863 (.727)	.589 (.606)
X2		1.00	-.477 (-.722)	-.048 (.142)	.219 (-.016)	.261 (-.074)	.416 (.260)
X3			1.00	.358 (-.011)	.425 (.152)	.447 (.248)	.249 (-.021)
X4				1.00	.904 (.502)	.708 (.542)	.466 (.483)
X5					1.00	.944 (.728)	.749 (.507)
X6						1.00	.864 (.694)
X7							1.00

Both sets of correlations in Table 1 comply with Wilensky's model that growth, demographic shifts in the age of the population and program incrementalism are the major determinants of greater spending which is equated with increased equalitarianism. Such an interpretation can, however, be misleading. Following Hage and Hanneman's (1977) suggestion the raw and detrended GDP and expenditure variables were plotted to test for periodization. The raw plot revealed three reversals between the general upward or downward movement of SWE and the consistent upward movement of GDP. These turning points, 1951, 1962 and 1971, seem to denote different post war periods of welfare development in Australia.

The first and third periods (1945-50 and 1962-71) are characterized by a general fall in SWE while GDP climbs. Both indicators move upward between the years 1951-62 and 1972-79. In the latter interval, however, there is a steep escalation in both which may partially explain the strong correlation noted for the overall series in Table 1.

The correlations for these periods are presented in Table 2. What these imply is that the demand/supply relationship is less straightforward than that suggested by 'developmentalists' and the data in Table 1. This is clearly illustrated in the raw correlations between GDP and SWE. The score of .863 for the complete series is often markedly different in the four lesser periods: 1945-50, -.477; 1951-1961, .727; 1962-1971, -.919; 1972-1979, .991. Detrended values also reflect some periodization although the pattern is not as evident. What they do highlight are the pitfalls of an uncritical acceptance of the growth/expenditure hypothesis in Australia. Only one period (1972-1979) reveals a positive correlation between welfare expenditure and economic growth (.669). The others are all negative (-.824, -.680 and -.321).

One conclusion that can be drawn from these zero-order scores is that the general time series models used in overseas and cross-national studies are not really appropriate for Australia. A model of periodization seems to be more useful in that it is sensitive to fluctuations and reversals which seem to fit welfare spending patterns in Australia.

Whether the above relations are maintained, when the influence of the other variables in the model are controlled, was checked with regression analyses. The findings for the overall series and the latter three mini-series are presented in Figure 1 and Table 3. It was necessary to use detrended values as collinearity in the raw data produced beta scores greater than 1 in each of the tests. Detrending, however, only partially reduced this problem as multicollinearity was not eliminated for the 1962-1971 and 1972-79 time periods.

The first regression for the overall period showed that

TABLE 2

A. Gross correlations, raw and detrended data, 1945-50, 1951-61 (shown below diagonal). Correlations for detrended data shown in brackets.

Variables	GDP	LEFT	RIGHT	% AGED	SIPE	SWE	REL PEN
GDP		-.559 (-.118)	.214 (.438)	.891 (-.872)	.879 (.190)	-.477 (-.824)	-.887 (-.100)
LEFT	-.569 (.013)		-.879 (-.913)	-.269 (.587)	-.761 (-.957)	-.177 (-.446)	.530 (.023)
RIGHT	-.111 (-.492)	-.229 (-.605)		-.166 (-.816)	.435 (.834)	.158 (.054)	-.119 (.182)
% AGED	.989 (-.529)	-.588 (-.215)	-.009 (.519)		.799 (-.611)	-.329 (.469)	-.815 (.046)
SIPE	.981 (-.131)	-.434 (-.052)	-.226 (-.167)	.951 (.358)		-.084 (.399)	-.735 (-.308)
SWE	.727 (-.670)	-.222 (.272)	-.133 (.066)	.727 (.291)	.746 (.199)		.250 (-.118)
REL PEN	.261 (-.175)	-.153 (.305)	-.316 (-.217)	.269 (.306)	.266 (.124)	.549 (.574)	

B. Gross correlations, raw and detrended data, 1962-71, 1972-79 (shown below diagonal). Correlations for detrended data shown in brackets.

Variables	GDP	LEFT	RIGHT	% AGED	SIPE	SWE	REL PEN
GDP		-.676 (.470)	.201 (-.628)	.878 (.322)	.985 (.820)	-.919 (-.321)	-.931 (.026)
LEFT	-.102 (-.639)		-.777 (-.848)	-.362 (.078)	-.665 (.439)	.773 (-.049)	.726 (.205)
RIGHT	.776 (.336)	-.560 (-.822)		-.178 (-.122)	.161 (-.533)	-.443 (-.011)	-.297 (-.363)
% AGED	.965 (.033)	.101 (.076)	.672 (-.132)		.904 (.524)	-.652 (.544)	-.804 (-.004)
SIPE	.995 (.773)	-.041 (-.485)	.750 (.106)	.965 (-.233)		-.868 (-.125)	-.944 (-.298)
SWE	.991 (.659)	-.192 (-.661)	.823 (.450)	.934 (-.127)	.983 (.514)		.898 (.496)
REL PEN	.971 (.221)	-.125 (.197)	.674 (-.236)	.963 (.159)	.979 (-.067)	.964 (.541)	

Right strength was the only variable not significantly related to at least one of the endogenous variables.[4] It was therefore dropped and the remaining variables regressed.

Figure 1 shows that the Left index does not have the predicted influence on SWE or SIPE. Both paths are small and negative and suggest that program experience and expenditures are independent of the left. Its main impact is on equality (RELPEM) where it has a modest (but significant) influence on the the relative level of aged pensions. The compound paths through SIPE from LEFT to RELPEM also suggest that, although the left has little bearing on incrementalism of Australian welfare, the influence it has is translated into greater equality. Given that Australia has had conservative Coalition governments for the greater part of the time since 1945, this may imply that the power of the left, as suggested by Hage and Hanneman, maintains a modest influence on pensioner income equality even though it lacks legislative authority.

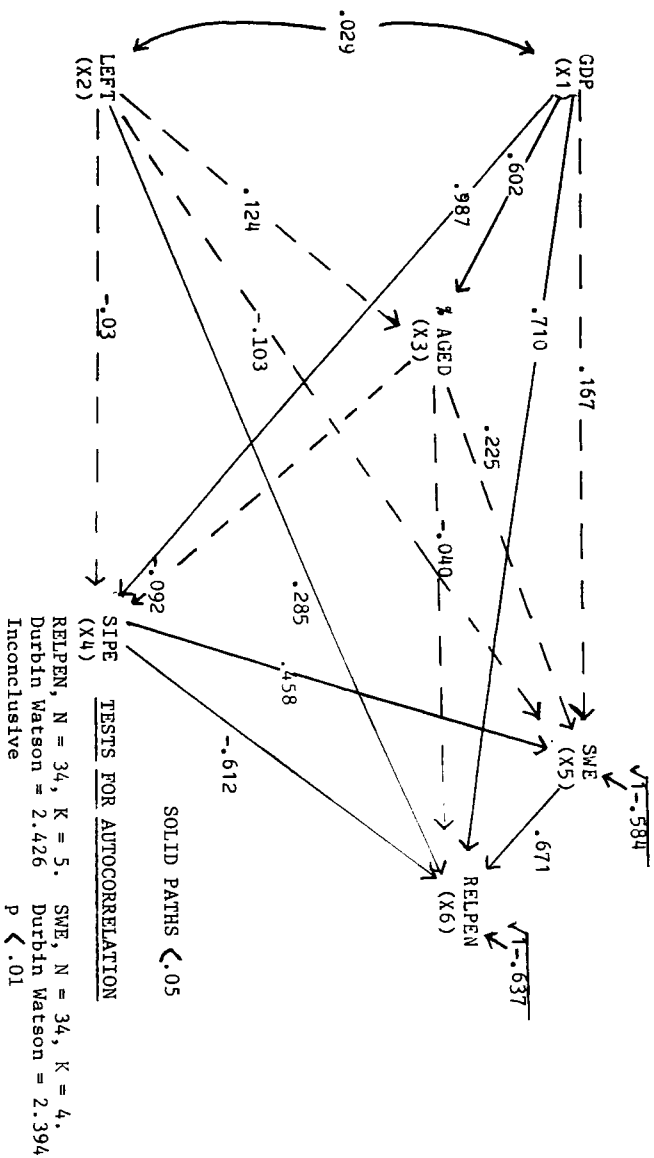
GDP is a powerful antecedent of SWE although its influence is mainly indirect through the proportion of aged (.602 x .225) and SIPE (.987 x .458). These patterns comply with Wilensky's and Cutright's findings that growth leads to demographic and incremental changes which result in 'big spending'. There is also some support for the view that economic growth leads directly and indirectly to greater equality. The path from GDP to RELPEM of .710 is large and statistically significant from zero. GDP also has indirect and compound influences on equality through SWE which has an important influence on pension levels. The strong, inverse relationship between incrementalism and pension levels suggests, however, that the historical impact of welfare coverage does not reduce inequality.

The major antecedents of SWE in the total series appear to be economic growth as mediated by the age of the population and program incrementalism. Most of the variance in SWE can be attributed to these 'developmental' variables. The Durbin-Watson (1951) statistic also shows that methodologically the model for SWE is sound as it is not significantly influenced by autocorrelation. The Durbin-Watson test also indicates, however, that the regression estimates for equality (RELPEM) are inconclusive. Collinearity between the independent variables still exists and thereby makes the validity of the beta coefficients questionable (Zald, 1977). Overall, however, the pattern for the estimates of RELPEM is quite straightforward. It offers more support for the growth/expenditure hypothesis although the influence of the left on the equality of pension levels is also apparent.

Table 3 compares the path coefficient between the latter three mini-series and the total period. The former coefficients need to be treated with exploratory caution because of the small n and the existence of

A MODEL OF WELFARE EXPENDITURE ANTECEDENTS: 1945 - 1979

FIGURE 1



multicollinearity in two periods [5].

These results again reveal that it is necessary to be suspicious of findings which offer unqualified support for the growth hypothesis. For example, in 1951-61 GDP is negatively related to SWE, SIPE and the proportion of aged. During this era, Australia moved into a post-war economic boom. The population, spurred by migration, grew while wage levels were low and pensions and benefits near subsistence. With these facts in mind, the inverse effect of GDP on the age of the population, and SWE are more readily understood. This negative impact on SWE is repeated in the 1962-71 series, a period of declining birth rates, reduced immigration, the rediscovery of poverty and the public recognition of the existing inadequacies in social welfare coverage. The coefficients in the final period, however, all correspond with the direction noted in the overall series.

The unsuitability of the developmentalist's model is also demonstrated in the % AGED coefficients. Unlike the pattern of consistency suggested by Wilensky, the association between the proportion of aged and SWE is equivocal in these mini-series. In two of the periods the relations are not only small, but are also negative.

Does politics matter? The findings for the overall period in Figure 1 point to the small but vital influence of the left on pension levels. The scores in Table 3 point out, however, that left strength is negligible for 1951-61, and negative in the years 1962-71. Left appears to have an impact only after 1972 when Labor came to power and initiated massive changes in benefit levels. Does this now mean that for the left to influence equality it requires the legislative strength to enact its policy commitments? While this remains a rich area of research, the unanticipated coefficients with the remaining welfare variables in the 1972 onward period, do not support this 'pacemaker' role. The fact that Labor was in power for only a few years before the return of the Coalition and its big cuts in Welfare spending, may explain some of this apparent discrepancy.[6]

While there is room for equivocation when the role of the left in welfare growth is examined, it is still clear that politics does matter. In each of the sub-series growth of the right is followed by lower levels of equalitarianism in pension levels and welfare expenditures. Compared to the overall model in Figure 1, this is a crucial difference as right strength returns at least one significant beta score for each of the smaller periods. So politics does matter in Australia, in the sense that a large or growing party on the right restricts welfare expansionism.

TABLE 3

A Comparison of Path Coefficients for the Total Series (1945-79)
and the Periods 1951-61, 1962-71, 1972-79

Variables		Years			
GDP (X ₁)	Paths	1945-79	1951-61	1962-71	1972-79
REL PEN (X7)	p17	.710	.411	1.19	.538
SWE (X6)	p16	.167	-.755	-.728	.514
SIPE (X5)	p15	.987	-.237	.695	.632
% AGED (X4)	p14	.602	-.363	.405	.086
<u>LEFT (X2)</u>					
REL PEN (X7)	p27	.285	.010	-.101	.898
SWE (X6)	p26	-.103	.162	-.307	-.538
SIPE (X5)	p25	-.030	-.434	.134	-.547
% AGED (X4)	p24	.124	-.006	-.001	-.003
<u>RIGHT (X3)</u>					
REL PEN (X7)	p37	-	-.514	-.229	-.124
SWE (X6)	p36	-	-.203	-.745	-.169
SIPE (X5)	p35	-	-.850	.053	-.595
% AGED (X4)	p34	-	.337	.131	-.164
<u>% AGED (X4)</u>					
REL PEN (X7)	p47	-.040	.647	-.335	.061
SWE (X6)	p46	+.225	-.005	.823	-.163
SIPE (X5)	p45	-.092	.580	.296	-.290
<u>SIPE (X5)</u>					
REL PEN (X7)	p57	-.612	-.303	-1.11	-.613
SWE (X6)	p56	.458	-.074	-.226	-.164
<u>SWE (X6)</u>					
REL PEN (X7)	p67	.671	.786	.920	1.15

Some Conclusions

The above findings illustrate the need for caution when general time-series models, developed in other countries, are used uncritically in the Australian context. Aggregation tends to mislead rather than clarify the influence of different factors during specific periods. Some important regularities do, however, emerge and several generalizations can be made about the antecedents of Australian welfare expenditures. These are listed below:

1. Pension levels relative to average male earnings are positively influenced by growth.
2. SWE has an equalitarian impact on the level of pensioner incomes.

Both of these patterns correspond with the 'developmentalist' view that growth leads to equality both directly and indirectly through existing social security spending.

There are other regularities which do not hold to this view of welfare statism. These suggest that equality is not an automatic outcome of social security programing and that, in Australia, the growth of right strength has a negative influence on both welfare expenditures and equality. These regularities are listed below:

3. Social Insurance Program Experience (SIPE) has a consistent, negative impact on the equality of pensioner income levels. This appears to be a persistent characteristic of Australian welfarism.
4. In all of the mini-series growth of the Right has a negative influence on social welfare expenditures (SWE).
5. Growth of the Right is followed by a decrease in the equality of pension incomes. This is another persistent feature of welfare statism in Australia.

Points 4 and 5 are in sharp contrast to the view that political factors have little bearing on the patterns of welfare spending in modern, industrial society. They show that political strength, in terms of the power of the right, needs to be included in models of welfare expenditure in Australia. The findings discussed in this paper also indicate that overall time series models lack utility when applied to periods within a series. It seems clear that efforts to build models of welfare statism in Australia should take into account period fluctuations as well as the strength of the right. The recurring patterns listed in the above generalizations also provide crucial insights into

the antecedents of welfarism in Australia. While these need to be treated as exploratory, they provide useful guidelines for future research on welfare expenditures in this country.

Footnotes

[1] Intersectorial income inequality is also used by Cutright (1967b) in a study not reported on in this paper. This measure compares worker incomes between different sectors in the economy. Cutright like Jackson shows that income inequality reduces in advanced technological societies. Rubinson and Quinlan (1977) re-analyze Jackson's and Cutright's findings but substitute personal income for intersectorial income. They conclude that development and democratization have a negative influence of income equality.

[2] In a footnote Castles and McKinlay (1979:164) provide the results of a re-analysis of Wilensky's data on 66 countries. They obtain a coefficient of -0.16 between development and welfare effort. What they suggest is that even in Wilensky's data 'economic development is wholly irrelevant as an explanation of welfare spending in advanced nations'. By failing to disaggregate high and low countries Wilensky (and also Cutright) has 'fallen foul of the ecological fallacy by affirming that countries with extra resources have more to devote to welfare than less advanced countries' (1977:164).

[3] The data used in this study originates with the Annual Reports of the Department of Social Security, National Accounts, Budget Speeches, The Annual Labour Report, The Commonwealth Yearbook and a statistical series developed by Butlin (1977). Butlin provides the only complete series on average income which is indexed to 1966 dollars. GDP, SWE and SIPE used constant 1979 dollars.

[4] A .05 test of significance was used. Beta values for the Right index with the dependent variables were as follows: RELPEN (-.026), SWE (.183), SIPE (-.098), and % AGED (-.058).

[5] The small 'n' in these periodization regressions makes it impractical to adhere to any particular level of significance. The path values need to be considered as demonstrating possible relationships. Because of the small 'n' it was not possible to calculate Beta values for the 1945-50 series. For the 1945-50 series were not calculable.

[6] The strong relation between the left and the pensioner income variable may be maintained as the lowering of pension levels would be politically disastrous, for the Coalition, compared to more general spending reductions in welfare.

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