The 2001 ACT election-determinants of voting behaviour in the post modern era *Draft*

The 2001 ACT election was held on 20 October, at stake were 17 places in the Legislative Assembly for the ACT. These were split among three electorates two (Ginninderra and Brindabella) returned five members each and one (Molonglo) returned seven members. The electoral system used was a variant of proportional representation known as Hare Clarke, candidates names on the ballot paper appeared in party or independent groups but the names within those groups were randomly rotated for each ballot paper by a method known as Robson Rotation; a system devised and used in Tasmania.

The electoral system was adopted at a referendum held in conjunction with the ACT elections of 1992. It easily defeated a proposal based on single member seats. It replaced another proportional representation system, the D'Hondt, which had been used for the 1989 and 1992 elections. Prior to self-government the advisory assemblies had also been elected by a proportional representation system based on the Australian Senate format. Consequently, in local politics the ACT has a long history of proportional representation elections, unlike all of the States except Tasmania.

By October 2001 the ACT had been ruled by a Liberal Government since 1995, the Chief Minister for most of this time was Kate Carnell a vigorous and creative politician who was forced into resignation by a financial scandal surrounding the expansion of Bruce (now Canberra) Stadium. She was replaced by the more dour, but very experienced, Gary Humphries.

Like all ACT Governments before it, this Government was a minority government supported by conservative independents; although in 1995 it was also supported by the Greens and another progressive independent.

Why analyse the ACT election? Who cares about the ACT? The ACT is unique as it:

- is the only place in Australia where local and State government are combined
- operates as a defacto republic, the Queen's representative (the Governor General) has no role, The Legislative Assembly alone has the power to appoint or remove the Chief Minister and legislation is assented to by the Speaker writing to the Parliamentary Counsel (The Governor General only has the power to dissolve the Assembly if it cannot operate)
- has fixed terms with virtually no option for early elections

Thus the ACT could serve as model for regional governments where such governments replace state and local govemments or as a republican form of government for Australia and the States.

The ACT is also bigger in population terms than the Northern Territory[1] and has a larger economy than Tasmania[2]

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[1] In 2001 the ACT population was approximately 314,000 compared to the Northern Territory's 199,000-ABS State Accounts 5220.0

[2] In 2001-02 the ACT Gross State Product was $m14,114 compared to Tasmania's $m12,281-ABS State Accounts 5220.0

However, in terms of post modern political analysis the ACT is a good case study as in terms of industrial structure it has very few persons employed in manufacturing and primary industry making it quite different from all of the States. The ACT is a post industrial[3] society-*par excellence.*

The 2001 ACT election also provides a unique research opportunity in that it occurred at almost the same time as the 2001 Census. The Census was conducted on the 7th of August and the election on the 20th of October, just over two months apart. Therefore, a lot of statistical data on the ACT population can be related to the election outcomes. The Australian Bureau of Statistics publishes extensive data for each Canberra suburb which can be related to voting data from each polling booth, which are located in most suburbs. Thus it is possible to examine how variations in relevant data from suburb to suburb impact on variations in support for each of the parties involved.

Overview of the 2001 election: setting new benchmarks?

The ACT election of October 20, 2001 was a watershed for ACT local politics.

Local elections have been held in the ACT since at least 1930 for a variety of local bodies. The earliest data from the Australian Electoral Commission (AEC) for ACT local elections is for the Advisory Council election of 1967.

Data for elections before then are hard to find, even in the AEC. In any case, it is arguable that "post-modern" Canberra emerged at that time.

Since responsible government in 1989 there have been five elections.

In the context of ACT elections from 1967 the 2001 ACT elections were notable for the:

- highest vote ever received by the ALP (41.7 per cent) in any ACT local election
- highest vote achieved by any one party
- highest proportion of votes (73.3 per cent) ever achieved by the two major parties (ALP and Liberal)

However, the 2001 Election did not result in the largest swing to Labor, that was in 1979 at the height of the Fraser years when the highest swing against the Liberals was also recorded. In fact the Liberals assertion on Election night (2001) that it was not a "bloodbath" is true as their 2001 vote was above average.

In terms of seats the ALP obtained 8 (one short of a majority), the Liberals 7, the Greens 1 and the Democrats 1. The ALP was able to form Government. When Mr Jon Stanhope was elected Chief Minister by the Assembly he received the support of the ALP, the Democrats and the Greens. It continued the tradition of minority government in the ACT, no one party has ever had a majority in any ACT elected Assembly[4].

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[3] For example in 2002 the percentage of persons employed in Manufacturing, Utilities, Construction and Transport were 25.8% for Australia and 10.1% for the ACT

[4] The subsequent election in 2004 did see the ALP achieve majority Government

The liberal numbers were reduced to 6 when they decided to expel one of their members, Ms Helen Cross, early in the term.

The average vote over that period shows that Labor leads the Liberals by 7.26 per cent, although this has never been enough to give Labor a majority in any local government body.

Table 1: Votes of Major parties in ACT Local Elections since 1967

Election	Body to be elected	ALP	Liberal	ALP-Lib	ALP+Lib	ALP swing	Lib Swing
1967	Advisory Council 8 seats	37.50	25.00	12.50	62.50		
1970	As above	30.40	13.50	16.90	43.90	-7.10	-11.50
1974	ACT Legislative Assembly 18 seats	24.20	33.60	-9.40	57.80	-6.20	20.10
1979	ACT House of Assembly 18 seats	41.50	21.20	20.30	62.70	17.30	-12.40
1982	As above	41.00	25.80	15.20	66.80	-0.50	4.60
1989	Legislative Assembly for the ACT 17 seats	22.80	14.90	7.90	37.70	-18.20	-10.90
1992	As above	39.90	29.00	10.90	68.90	17.10	14.10
1995	As Above	31.63	40.48	-8.85	72.11	-8.27	11.48
1998	As above	27.61	37.83	-10.22	65.44	-4.02	-2.65
2001	As above	41.70	31.60	10.10	73.30	14.09	-6.23
Average		37.58	30.32	7.26			

Source: Australian Electoral Commission and the Canberra Times

In 2001 the ALP secured a very strong swing across all three electorates. The voting for 2001 and 1998 is reported in Table 2.

The ALP achieved its best result in Brindabella with 43.97 per cent, just 1.15 per cent better than Ginninderra. But that was enough to obtain the third seat. The ALP vote in Molonglo was 3.51 per cent less than the Ginninderra figure and 4.66 per cent lower than that recorded in Brindabella.

Molonglo was the strongest electorate for the Liberals and the Greens. The Democrats did well in Ginninderra, well enough to win a seat.

Although polling poorly, the Osborne "group" was strongest in Brindabella but hardly registered in Molonglo. A similar result to 1998.

The ragtag of Other had their best vote in Ginninderra, again similar to 1998.

The swing to the ALP of 14.11 per cent was at the apparent expense of The "Osborne" group, the Liberals and Other. The Democrats also gained votes in each Electorate whereas, the Greens lost

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votes in Brindabella and Ginninderra. Some of these may have gone to the ALP in Brindabella, but the Democrats and Others could also have benefited, possibly the Nurses group. In Ginninderra, the slight drop in support for the Greens could have benefited the Democrats.

Table 2: ACT Elections 2001 and 1998

2001	Brindabella	Ginninderra	Molonglo	ACT
ALP	43.97	42.82	39.31	41.72
Paul Osborne grp	6.87	5.61	1.19	6.27
Greens	5.43	7.94	12.57	9.10
Liberals	31.86	27.92	34.13	31.64
Democrats	6.96	9.71	7.63	8.04
Other	4.91	6.00	5.17	3.21
1998				
ALP	28.50	29.61	25.64	27.61
Paul Osborne grp	16.23	9.63	3.66	9.11
Greens	8.08	8.69	10.11	9.10
Liberals	37.07	33.16	41.46	37.83
Democrats	6.15	7.17	5.07	5.98
Moore Ind	0.00	0.00	6.95	2.92
Other	3.97	11.74	7.11	7.45

Source: ACT Elections Web site

Table 3: Swings from 1998 to 2001 (per cent)

	Brindabella	Ginninderra	Molonglo	ACT
ALP	15.47	13.21	13.67	14.11
Paul Osborne	-9.36	-4.02	-2.47	-2.84
Greens	-2.65	-0.75	2.46	0.00
Liberals	-5.21	-5.24	-7.33	-6.19
Democrats	0.81	2.54	2.56	2.06
Other	0.94	-5.74	-1.94	-4.24

Determining voter behaviour from census data

The Australian Bureau of Statistics publishes a large range of data for each Canberra Suburb as part of its **Social Atlas** compilation. The data is derived from the Census which is conducted every five years. Most polling booths are located centrally in each suburb which allows for comparisons to be made between voting outcomes and the demographics/social data for the area concerned.

However, it is important to note that not everyone uses their local polling booth. One can vote at any polling booth in their electorate but there is no way of estimating the numbers involved. Other options include postal voting, pre-poll voting and voting in another electorate. Considerable numbers of electors exercise these options.

Table 4:Numbers of votes cast through postal, pre-poll and in other electorates 2001

Option	Number	Per cent of total votes cast
Postal	6,258	3.3
Pre-poll	24,026	12.6
Declaration	1,204	0.6
Away from electorate	10,801	5.7
Total	42,289	22.2

Source: Election Statistics-Elections ACT

Almost a quarter of votes are not cast at a local polling booth and votes cast at other booths within the electorate would certainly add to this proportion.

1. What factors determine voting behaviour?

Considerable research has been undertaken into the determinants of voting in Australia and other countries[5]. The most important factors are generally:

- class, either subjective or objective
- age
- gender
- religion

Class is the most important determinant in most of the long standing democracies where political parties coalesce around broad class groupings. Class can be subjective in that people will regard themselves as middle class when their real circumstances may suggest otherwise. Alternatively some middle class people may claim to be working class for any number of reasons. In surveys very few people admit to being upper class[6]. As this study is based on Census data it is not possible to analyse subjective class, such questions are not part of the Census. But other data relating to objective class are, such as income, industry and occupation.

Sir Winston Churchill is quoted as saying "To be conservative at 20 is heartless and to be a liberal at 60 is plain idiocy" sums up an oft noted observation that younger people tend to be most likely to vote for radical parties than older persons. However, in post modernity the concepts of conservatism and radicalism have become somewhat confusing. It used to be that radicalism was associated with the left but now that concept is just as likely to be applicable to the proponents of economic rationalism and technological change. Today, who are the conservatives? Census data does collect information on age and a median age is published for each suburb.

[5] For a discussion of some of these see Who now votes Labor? Clive Bean School of Social Science Queensland University of Technology published in The Australian Labor Party towards 2000 John Warhurst and Andrew Parkin (eds)

[6] See Tables 3 and 4 in Social Stratification in two Egalitarian Societies: Australia and the United States Kurt B Mayer in Australian Politics a reader edited by Henry Mayer.

Males and females do have different voting tendencies but as the distribution of both is basically 50/50 for each suburb there is not enough variation to enable this factor to be examined meaningfully.

Religion has historically been of some importance in determining voting. In the past there was quite a divide between Catholic and Protestant communities. Catholics were more likely to be associated with the ALP and Proestants the Liberals. Such divisions, or fault lines, appear to have broken down. In fact at the 2001 ACT Election all Ministers in the incumbent Liberal Government were Catholic, a fact that was not commented on until well after the election. It was not seen as an issue by anyone at the time. However, the data is available and will be analysed.

Is there a fault line between those who subscribe to no religion and those who do? Census data is available so it can be analysed as well.

As the data available from the Census for each suburb is extensive another three sets of data have been included in this analysis. These are the proportion of persons:

- employed in the Australian Standard Classification of Occupations (ASCO) groups of Tradespersons, Intermediate Production and Transport Workers, Elementary Clerical, sales and Service Workers and Labourers and Related Workers. These constitute The Blue collar employees or what may be considered as the "working class".
- employed in the Australia and New Zealand Industrial Classifications (ANZIC) of Government Administration and Defence, Education and Health and Community Services. It has often been claimed that the reason for the high ALP vote in the ACT is due to the large number of public sector employees. The classifications cited are largely public sector.
- born overseas-there is some evidence that their voting behaviour differs[7] from those born in Australia.

2. Parties included in this analysis

Included are the two major parties the ALP and The Liberal Party of Australia and the two minor parties the Australian Democrats and the ACT Greens. These account for 90.5 per cent of votes cast. The remaining 9.5 per cent were for the Paul Osborne Group (6.27 per cent) and various independents (3.21 per cent). Due to the small number of votes these were not included, although at the previous election in 1998 the Paul Osborne Group out polled the Greens and the Democrats. In the 2001 election both Paul Osborne (Brindabella) and Dave Rugendyke (Ginninderra) failed to be re-elected.

Data on each of the socio-economic factors for each relevant suburb, based on the ABS census data were related through Pearson and Spearman Correlations to voting data from each matching polling booth. There were 76 polling booths at the 2001 election. The results are reported below:

3. Impact of variations in Median Income

Over the 76 suburbs upon which the polling booths were based weekly median income ranged from $319 (Oaks Estate) to $1,200 (City).

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[7] See Who now votes Labor? Page 10 Clive Bean School of Social Science Queensland University of Technology published in The Australian Labor Party towards 2000 John Warhurst and Andrew Parkin (eds)

Table 5: Descriptive statistics-Median Incomes

Statistic	$
Lowest	319.00 (Oaks Estate)
Highest	1,200.00 (City)
Mean	562.00
Standard Deviation	118.65

Both the highest and lowest are oddities being well outside one Standard Deviation. In fact they are both outside of two Standard Deviations which suggest that they are far from typical.

City is a polling Booth of unusual characteristics and includes only a small residential area and Oaks Estate is a semi rural area with a small population.

Table 6: Correlation and Spearman rank coefficients between Median Income and Party vote by polling booth

Party	Correlation coefficient	t value	R Square	Spearman rank coefficient	t value
ALP	-0.5590	-5.8000	31.25	-0.5950	-6.3684
Liberal	0.3635	3.3563	13.21	0.6694	7.7521
Democrat	ns	na	na	ns	na
Greens	ns	na	na	ns	na

There is a statistically significant[8] relationship between Median Income and the percentage of votes cast for both of the major parties but not for either of the minor parties. The relationship is what one would expect; an inverse relationship for the ALP and positive for the Liberals. The relationship is much stronger for the ALP for the full correlation as shown by the Correlation coefficient. The Spearman rank coefficient is stronger for the Liberals but this is a much less rigorous test being based on a comparison of ordinal rankings.

In simple terms it can be alleged that 31.25 per cent of the variation of the ALP vote can be explained by variation in Median Income (the R square). But with the Liberals only 13.21 per cent is so explained. Variations in Median Income appear to have no impact in variations in the vote of the Democrats or Greens.

[8] All significant test are at the 5 % level the t value needing to be equal or greater than 1.960

4. Impact of variation in the proportions employed in the Australian Standard Classification of Occupations (ASCO) groups of Tradespersons, Intermediate Production and Transport Workers, Elementary Clerical, Sales and Service Workers and Labourers and Related Workers (the Working Class)

Table 7: Descriptive statistics-Proportion Working Class or manual workers

Statistic	Proportion
Lowest	0.05 (City)
Highest	53.1 (Oaks Estate)
Mean	24.36
Standard Deviation	8.26

Both highest and lowest are outside of two Standard Deviations again suggesting that they are not typical.

Table 8: Correlation and Spearman rank coefficients between statistics-Proportion Working Class or manual workers and Party vote by polling booth

Party	Correlation coefficient	T value	R Square	Spearman rank coefficient	T value
ALP	0.5062	5.0497	25.63	0.6550	7.4571
Liberal	ns	na	na	-0.2267	-2.0020
Democrat	ns	na	na	ns	na
Greens	-0.5774	-6.0835	33.34	-0.6652	-7.6646

There was a statistically strong direct correlation between the variation in the ALP vote and the working class proportion as measured by occupational proportions. With the Liberals the relationship was much less in fact there only a measurable relationship using the less rigorous Spearman rank test, and even that was only just.

Such an outcome is not surprising as the ALP is dedicated to advancing the interests of the people included here and has done so for over a hundred years. While the Liberals are often associated with the more highly skilled occupations they do make some overtures to this group and the phenomenon of the working class tory is still around.

The variation in the Democrat vote was unrelated to variation in occupational proportion but there was a statistically strong inverse relationship between it and variation in the Green vote. Does this mean that these occupational groups are adverse to the Greens? What is the causation? The Greens policy stance may be perceived to be adverse to the interests of this group, especially in terms of jobs connected with forestry and other extractive primary industries. Also there could be a perception that the Greens are against the leisure options favoured by them, for example V8 and drag racing.

In any case it suggests that the Greens may not challenge the standing of the ALP in this section of the community.

5. Impact of variations in Median Age

Table 9: Descriptive-Median Age

Statistic	Years
Lowest	26 (Belconnen)
Highest	43 (Yarralumla)
Mean	33.73
Standard Deviation	3.86

The dispersion of median ages across the 76 polling booths is less than that of the other variables but is still quite large ranging from 26 in Belconnen (the polling booth not the whole Belconnen area) to 43 in Yarralumla. The Belconnen area is characterised by a large number of flats and Yarralumla is one of the oldest inner city suburbs.

Table10: Correlation and Spearman rank coefficients between Median Age and Party vote by polling booth

Party	Correlation coefficient	T value	R Square	Spearman rank coefficient	T value
ALP	-0.4580	-4.4315	20.97	-0.4794	-4.6996
Liberal	0.3428	3.1387	11.75	ns	na
Democrats	ns	na	na	ns	na
Greens	0.4973	4.9313	24.73	0.6710	7.7844

The surprising aspect of these relationships is the strong positive correlation between median age and the Green vote, both the correlation based on variances and the ordinal ranking (Spearman) measure are strongly significant. It suggests that older voters favour the Greens. An outcome that is at odds with the perception that the Greens are a radical party of the young. Could it be that the Greens are the true conservatives, conserving the environment and standing against the ravages of economic rationalism.

The outcome also indicates that the younger voter lent towards the ALP in 2001 and to a lesser extent older voters, if not Green, went for the Liberals.

6. Impact of variations in proportion employed in the public sector

Table 11: Descriptive-Proportion employed in Public Sector

Statistic	Proportion
Lowest	22.70 (Hall)
Highest	51.80 (Hughes)
Mean	40.50
Standard Deviation	5.16

The lowest proportion in Hall is quite untypical as it is almost 4 standard deviations lower than the mean, Hughes at about 2 standard deviations above is also untypical but not to the same extent.

In Table 12 (below) only variations in the vote for the ACT Greens vote was related to variations in the proportions of persons employed in the public sector. The Spearman rank coefficient was also highly significant. It suggests that public sector employees are an important source of support for the Greens at the ACT level. It does not mean that all, or not even a majority, of these employees support them but are more likely to do so than employees in the private sector. Certainly as reported above manual or lower skilled employees appear less inclined support the Greens.

While the variation in the ALP vote does not appear to be related to variations in the proportions of public sector employees it does not mean that the ALP has only limited support from this group; however, it could be that the ALP's support base is not necessarily confined to public sector employees[9].

Table 12: Correlation and Spearman rank coefficients between Proportion Employed in the Public Sector and Party vote by polling booth

Party	Correlation coefficient	T value	R Square	Spearman rank coefficient	T value
ALP	ns	na	na	ns	na
Liberal	ns	na	na	ns	na
Democrats	ns	na	na	ns	na
Greens	0.4846	4.76609	23.49	0.6032	6.5066

[9] In a poll taken before the 1998 ACT Election (Datacol) and published in the Canberra Times it was reported that 35% of ACT Public Service Employees intended to vote ALP compared to only 22% of those Employed by the Australian Public Service and 18% for those employed in the private sector. Overall support for the ALP stood at 22%.

7. Impact of variations in the proportion of overseas born

Table 13: Descriptive-Proportion born overseas

Statistic	Proportion
Lowest	16.70 (Hughes)
Highest	63.50 (City)
Mean	26.94
Standard Deviation	6.32

There is a wide dispersion of proportions of overseas born throughout the ACT. Hughes has the lowest but is less than two standard deviations away from the mean. The highest is well away at almost 6 standard deviations away. Hughes is the oldest suburb in the Woden Valley and was settled in the early 1960s.

This variable has produced some interesting results. It is one of the few that has produced a relationship with the vote for the Australian Democrats. The relationship is very strong in respect of the Green vote. As well it has an inverse relationship with the ALP vote, which is contrary the conventional wisdom surrounding this issue. Why? Are people born overseas more environmentally conscious than those born in Australia? The likelihood of such a position has, to my knowledge, never been posited before. It is true that some overseas persons (Norm Sanders for example) have been in the forefront of environmental campaigns; although it is unlikely to influence all overseas born persons.

However, on reflection the Tampa event did occur in August of that year and the response of the

Table14: Correlation and Spearman rank coefficients between Proportion Born Overseas and Party vote by polling booth

Party	Correlation coefficient	t value	R Square	Spearman rank coefficient	t value
ALP	-0.2658	-2.3715	7.1	-0.3403	-3.1128
Liberal	ns	na	na	ns	na
Democrats	0.3562	3.2788	12.6	ns	na
Greens	0.5402	5.5226	29.2	0.6067	6.5650

Greens and the Democrats to refugee issues may have had a decisive impact on this section of the community. It may also explain the negative relationship between this variable and the ALP vote. The ALP's decision to side with the Federal Liberal Government did alienate some ALP supporters who deserted the party for parties who empathised with the plight of refugees.

8. Impact of the proportion of persons who are Catholic

Table 15: Descriptive-Proportion Catholic

Statistic	Proportion
Lowest	11.67 (City)
Highest	36.75 (Gowrie)
Mean	28.39
Standard Deviation	4.90

The lowest proportion of Catholics are in the City area which is over 3 standard deviations below the mean. The highest proportion is in Gowrie which has 36.75 per cent, but this is less than two standard deviations above.

Table16: Correlation and Spearman rank coefficients between Proportion Catholic

Party	Correlation coefficient	t value	R Square	Spearman rank coefficient	t value
ALP	0.3552	3.2684	12.61	0.3268	3.3199
Liberal	ns	na	na	ns	na
Democrats	-0.2751	-2.4617	7.6	ns	na
Greens	-0.7949	-11.2697	63.2	-0.8265	-12.6296

The surprising aspect of this relationship is the strong correlation between the variation in the Green vote and that of the proportion of Catholics. In fact it is the strongest of all correlations. It suggests that Catholics are much less likely to vote Green than Protestants or those of no religion.

There is a similar but weaker pattern for the Democrats. Is it because these are seen as the most "humanist" of the parties?

The relationship for the ALP is positive possibly reflecting the historical role of the Catholic working class and discrimination against Catholics by the right of centre political parties in the past. Although, as stated above the incumbent Liberal Government had a 100 per cent Catholic Ministry. It seems odd that in the 21st Century old sectarian differences should still have some influence. It may also reflect the New South Wales origins of many in the ACT population where links between the Catholic Church and the ALP are still important.

9. Impact of the proportion of persons who claim to have no religion

Table 17: Descriptive-Proportion No Religion

Statistic	Proportion
Lowest	13.20 (City)
Highest	31.5 (Aranda)
Mean	19.87
Standard Deviation	4.21

Another way of analysing the religion issue is to look at those who respond to the Census by stating no-religion[10]. As with all the other variables there is a considerable difference among the Polling Booth areas of the ACT. Aranda is a standout in this respect being almost 3 standard deviations below the mean.

Table 18: Correlation and Spearman rank coefficients between Proportion No Religion

Party	Correlation coefficient	t value	R Square	Spearman rank coefficient	t value
ALP	ns	na	na	-0.2733	-2.4443
Liberal	ns	na	na	ns	na
Democrats	ns	na	na	ns	na
Greens	0.7421	9.5239	55.07	0.7631	10.1565

Again a very strong relationship between variations in no religion and variations in the Green vote. It appears to have little impact on variations in the vote of the other parties. Is the Christian view that humans are a dominant species[11] as opposed to the environmentalist concern for all forms of life a factor here?

10. Impact of relationships between the independent variables

In Table 19 the correlations between the independent variables is reported. Close relationships between such variables can lead to mis-specification. For example if Y is related to X is it because changes in X cause changes in Y or is it due to X being effected by Z; which is the real driver or reason for variation? For example in Table 19 working class proportion is strongly related to median income. Both of these are correlated with variations in the ALP vote. So what is the main reason for variation in the ALP vote? Median income or working class proportion? The two variables are tangled up. Median income explains more in terms of the R square (31 per cent as opposed to 25 per cent). Probably because everyone has some sort of income and many low income earners are not necessaraily working class, some may be recipients of pensions or working part time in occupations

[10] In the Census persons have a number of options, they can list a religion Christian or other any other, no religion or just not answer the question at all which becomes not stated.

[11] See Genesis 26 The Bible

not classified as working class.

One way of overcoming this is to use a system of cascading regressions, starting with the best relationship then continuing with regressing the residuals against the remaining independent variables.

Table 19: Correlation between independent variables correlation coefficient (R square)

	Median Age	Industry Proportion (Public sector)	Occupational proportion (working Class)	Overseas born proportion	No religion proportion	Catholic proportion
Median Income	0.24 (6)	nsr*	-0.65 (42)	0.42 (18)	nsr	-0.28 (8)
Median Age		0.62 (38)	-0.62 (39)	0.24 (6)	0.49 (24)	-0.51 (26)
Industry Proportion (Public sector)			-0.64 (41)	0.25 (6)	0.57 (33)	-0.43 (18)
Occupational proportion (working Class)				-0.55 (31)	-0.43 (19)	0.61 (37)
Overseas born proportion					nsr	-0.66 (43)
No religion proportion						-0.66 (44)

*No significant statistical relationship at 5% level

Such regressions were done for each of the parties (ALP, Liberal, Democrats and Greens). Statistically significant correlations resulting from this process are summarised in the table 20 below.

As a result of this process it appears that variations in voting percentages for the ALP and Greens are explained by more variables than either the Liberals or Democrats. The variation in the Green vote is explained by almost every variable contained in this study, median income being the only one not to have any influence. Religion, or the lack of it, is quite significant in determining variations in the Green vote.

Table 20: Variables for which significant correlations were detected on the residuals of cascading regressions by party

Australian Labor Party	Liberals	Australian Democrats	Greens
Median income (-)	Median Income (+)	Proportion born overseas (+)	Proportion Catholic (-)
Median age (-)	Median age (+)		Proportion no religion (+)
Proportion Catholic (+)			Industry percent in GAD, Edu and HCS (+)
Proportion born overseas (-)			Percent born overseas (+)
			Median age (+)
			Percent manual workers (-)

11. Summary and conclusions

In post industrial post modern ACT it seems that in 2001 that some of the old certainties of politics still hold true but there are some surprises. The ALP still obtains support from lower income earners and younger people while the Liberals attract older and more affluent voters. Catholics still favour the ALP even though there is little evidence of anti Catholic sentiment in the Liberal Party. In fact the incumbent Liberal Government had a 100 per cent Catholic cabinet.

The Greens support was surprising. Their support base appears to be an older group employed in the public sector and people of no religion. They seem to be eschewed by Catholics and the working class.

Persons born overseas were prone to vote Greens or Democrats, possibly because of the Tampa episode that occurred earlier that year.

The Democrat vote appears to be effected by nothing much apart from overseas born persons.

If one developed a profile of typical party voters it may look something like this:

Australian Labor Party
A younger lower income earner born in Australia and either a practising Catholic or with a Catholic background.

Liberal Party
An older person on a higher income.

Democrats

No real profile, perhaps born overseas

Greens
Non religious and not Catholic, older person employed in the public sector but not working class perhaps born overseas

The Greens and the ALP would appear to have the most definable constituencies, the Liberals less so and the Democrats virtually none. This can be both a strength and a weakness. A highly defined constituency can provide a solid base but can also limit support. The Greens adverse position in respect of Catholics could limit their potential to increase support.

12 Appendix A: Descriptive statistics voting percentages

Table 21: Descriptive statistics voting percentages by polling booth

	ALP	Liberal	Democrats	Greens
Standard deviation	5.15	6.12	1.88	4.96
Mean	41.97	31.18	7.99	9.53
Range	28.60	34.14	9.74	22.36
Lowest	26.22	17.76	4.53	3.40
Highest	54.82	51.90	14.28	25.76

Again it is the Green vote that is interesting. With a large standard deviation and a high range these results are consistent with the observations above; many factors impact on the Green vote. The Democrat vote displayed comparatively limited variation among polling booths.

13 Appendix B: Voting in Canberra's Communities

Table 22 below reports the percentage of votes received for each of the Parties in each of the Town Centres or major ACT Communities. The ALP was strongest in Belconnen and Tuggeranong areas which comprise the bulk of the electorates of Ginninderra and Brindabella respectively. In Gungahlin and South Canberra the Liberals received their strongest support and were very close to the ALP.

The Greens obtained their best results in the older areas of Canberra, North and South Canberra, Woden and Weston Creek.

These results were all consistent with the variables discussed above. For example Gungahlin and South Canberra had higher median incomes which impacted on the ALP and Liberal percentages.

In fact median income in Gungahlin was much higher than that for any other Town Centre, 35 per cent higher than that of Belconnen and even 7 per cent higher than that of South Canberra which includes some of Canberra's older prestige suburbs such as Red Hill, Forrest and Deakin.

Tuggeranong provided the ALP with its best vote, a result of its comparatively low median income, lower median age, higher Catholic proportion and lower proportion of overseas born..

The higher proportion of Catholics in Gungahlin and Tuggeranong impacted adversely on the Green vote in those areas.

Table 22: Percentage of votes for Parties by Town Centres

Party	Belconnen	Gungahlin	North Canberra	South Canberra	Woden	Weston Creek	Tuggeranong
ALP	43.88	37.79	40.18	38.01	40.12	41.06	45.14
Liberal	26.80	36.10	27.34	37.48	35.62	34.56	31.18
Democrat	9.75	8.09	8.66	6.48	7.33	7.31	6.68
Greens	8.11	6.19	18.36	12.89	10.06	11.10	5.00
Median Income	504.60	681.29	576.09	636.00	549.29	576.67	541.11
Median Age	32.85	30.29	35.09	37.43	37.66	37.67	30.89
Percent in Public sector	39.35	35.91	44.92	41.23	44.91	43.98	37.70
Percent Working Class	28.26	24.47	16.11	17.73	21.03	23.17	29.33
Percent born OS	26.01	26.03	34.28	30.21	28.51	25.78	22.34
Percent Catholic	28.91	32.19	21.70	24.33	27.85	28.13	32.29

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September 2004

Annex 1: Percentage vote for each party and variables impacting on voting by polling booth

Polling Booth	ALP	Liberals	Democrats	Greens	Median Income $	Med Age Years	Industry percent in GAD, Edu and HCS	Percent manual workers	Percent born OS	Per cent Catholic	Per cent no religion
Belconnen	43.01	23.31	14.29	10.15	418	26	40.70	24.60	38.10	23.07	22.60
Scullin	42.96	26.11	11.15	8.57	496	31	38.30	30.30	24.80	27.78	20.70
Page	43.58	27.94	10.06	8.09	419	37	43.60	27.10	28.90	26.86	18.29
Florey	48.45	26.77	8.82	6.18	486	30	39.10	30.10	30.80	31.55	15.08
Weetangera	38.29	32.81	9.55	8.99	610	40	47.30	17.50	30.20	24.00	22.24
Charnwood	48.25	27.24	7.80	4.86	387	30	31.20	38.90	26.90	28.69	19.86
Fraser	41.89	28.11	10.45	8.20	574	34	41.40	24.80	18.20	27.33	23.10
Holt	45.58	25.02	8.79	6.84	480	32	36.60	31.50	24.70	27.22	19.00
Aranda	40.34	24.71	11.42	16.13	602	40	51.10	14.80	28.60	19.19	31.50
Kaleen	47.17	24.42	7.67	6.72	497	33	37.60	29.30	26.50	33.21	16.44
Melba	40.82	28.54	11.13	7.46	534	33	40.00	25.80	23.10	29.94	19.55
Higgins	44.06	26.48	8.48	8.14	478	33	36.40	33.80	25.20	29.44	18.86
McGregor	45.36	25.72	9.46	6.98	504	31	34.80	33.10	21.50	31.56	16.40
Evatt	46.37	28.38	7.27	6.47	528	31	37.60	29.80	22.20	33.26	15.76
Kaleen South	41.53	26.55	9.36	8.09	497	33	37.60	29.30	26.50	33.21	16.44
Evatt South	42.68	28.05	10.26	8.52	528	31	38.20	29.40	25.70	33.26	15.76
Giralang	44.25	25.45	10.53	6.13	513	31	37.50	30.10	24.60	28.70	18.44
Macquarie	43.21	23.04	10.15	13.39	497	35	43.20	24.20	28.50	25.84	21.70
Latham	44.81	29.12	9.76	6.16	504	33	37.90	30.80	24.00	31.87	17.09
Flynn	45.07	28.27	8.61	6.10	540	33	36.80	29.90	21.10	32.21	17.10
Ngunnawal South	39.70	33.92	9.80	5.78	602	29	37.5	26.7	25.7	32.04	17.69
Ngunnawal	40.91	34.62	8.34	5.34	602	29	37.5	26.7	25.7	32.04	17.69
Nicholls	43.16	32.74	6.68	4.72	669	30	39.7	21.6	27	36.14	15.30
Nicholls	37.12	38.18	8.23	3.40	669	30	39.7	21.6	27	36.14	15.30
Gunghalin	30.16	37.78	10.79	7.06	822	29	37.3	24.5	22.6	34.78	15.69
Palmerston	42.17	36.70	6.74	4.54	583	29	37	27	32.1	30.34	14.94
Hall	31.32	38.79	6.05	12.46	822	36	22.7	23.2	22.1	23.86	21.59
Ainslie North	44.48	24.10	7.38	20.00	507	36	46.8	17.6	27.9	21.62	30.84
Watson	43.34	27.28	6.24	18.27	491	31	41.8	23.6	27.5	27.10	22.70
Campbell	26.22	44.81	7.90	13.92	667	40	50.7	12.6	27.4	23.12	27.27
Baker Gardens	40.13	28.40	8.67	19.20	543	36	44.8	15	34.9	21.62	30.84
Downer	48.71	24.46	5.91	14.49	453	35	43.2	25.1	31.2	24.17	26.64
Dickson	40.13	26.53	10.66	17.04	497	34	42	17.3	29.3	25.60	28.45
Reid	40.37	31.35	7.84	13.46	543	36	50.5	13.5	40.1	17.99	25.20
Lyneham	41.28	22.81	8.26	23.45	462	34	43.6	21.1	32.2	25.83	23.10
Turner	41.60	17.76	9.75	25.77	467	32	45.8	15.9	34.4	18.32	27.60
Ainslie	42.23	27.11	8.92	16.83	507	36	47.7	15.5	28.7	21.62	30.84
City	33.47	26.12	13.67	19.49	1200	36	37.2	0.05	63.5	11.67	13.20
Deakin	27.23	51.90	4.54	12.15	673	42	45.8	11.4	27.1	22.14	21.00
Griffith	41.88	30.58	6.81	15.12	737	36	45.5	12.4	31.8	26.19	22.21
Narrabundah	54.83	22.30	8.36	9.09	511	36	44.1	20.8	27.5	27.66	21.47
Oaks Estate	34.21	42.11	5.26	13.16	319	32	27.3	53.1	27.7	25.32	19.30
Yarralumla	37.96	36.69	6.06	15.28	742	43	42.9	10.2	30.5	23.71	22.92
Barton	34.39	39.55	8.17	12.95	890	34	39.5	2.8	38.1	18.09	19.60
Red Hill	35.56	39.20	6.17	12.50	580	39	43.5	13.4	28.8	27.21	18.50
Kambah North	45.11	27.38	9.19	6.00	516	33	36.6	25.1	22.3	30.96	19.03

Polling Booth	ALP	Liberals	Democrats	Greens	Median Income $	Med Age Years	Industry percent in GAD, Edu and HCS	Percent manual workers	Percent born OS	Per cent Catholic	Per cent no religion
Wanniassa Hills	43.09	32.50	7.33	5.95	514	33	40	30.3	23	30.44	18.33
Bonython	41.37	31.78	6.65	4.35	583	30	39.6	28	25.2	30.85	16.56
Kambah East	45.55	29.16	7.39	6.72	516	33	36.6	25.1	22.3	30.96	19.03
Theodore	46.46	32.35	5.61	4.34	563	28	37.3	30.1	21.4	32.70	18.31
Conder	46.80	29.00	6.21	4.66	562	28	36.2	32.3	20.5	33.44	14.58
Gilmore	45.32	31.27	5.63	5.30	513	28	32.5	34.4	18.8	34.46	16.10
Gowrie	44.15	32.28	6.71	4.66	556	31	41.7	29.2	21.5	36.75	17.60
Chisholm	47.50	29.77	6.14	4.89	518	29	35	32.7	19.8	32.02	16.23
Calwell	44.10	32.53	6.88	4.33	619	30	40.1	27.8	21	33.27	16.24
Kambah West	43.80	30.10	7.23	6.23	516	33	36.6	25.1	22.3	30.96	19.03
Gordon	44.80	33.97	6.23	3.93	573	29	37.6	29.1	22.6	32.93	15.42
Wanniassa	47.56	27.81	7.20	5.03	514	33	40	30.3	23	30.44	18.33
Isabella Plains	48.16	29.27	6.45	4.23	535	29	37.7	34.4	25.7	32.65	15.67
Monash	45.95	33.67	5.18	4.33	540	32	40.5	28.3	25.6	32.44	14.54
Richardson	48.39	29.31	6.10	4.91	461	29	32	41	22.1	31.31	16.67
Kambah South	50.88	26.26	7.28	4.69	516	33	36.6	25.1	22.3	30.69	19.03
Fadden	33.57	42.76	6.88	5.44	625	35	42	19.7	22.7	33.97	16.60
Pearce	38.65	35.78	8.62	6.85	593	40	40.4	21.8	27.1	35.11	16.50
Hughes	37.89	37.96	6.82	12.04	571	40	51.8	15.5	16.7	22.23	21.32
Curtin	39.89	31.80	7.84	13.07	576	38	48.6	18.6	25.7	27.27	22.20
Mawson	37.53	40.72	6.73	9.45	524	37	40	24.9	34.1	27.04	18.78
Chifley	44.40	28.22	8.36	10.05	544	35	43.2	25	29.7	28.02	18.56
Lyons	46.78	29.41	6.95	11.44	464	37	47.3	24.1	34.8	26.55	20.23
Farrer	35.69	45.43	6.00	7.54	573	38	43.1	17.3	31.5	28.76	20.54
Duffy	41.40	32.01	8.13	11.94	606	37	44.1	22.8	23.2	26.50	24.60
Chapman	37.15	40.10	6.58	10.73	634	41	44.5	15.7	28.3	28.30	20.23
Waramanga	43.26	32.72	6.77	10.51	550	36	43.1	24.9	27.1	31.37	17.59
Rivett	44.18	32.76	7.30	9.75	522	34	41.5	29.8	23.1	26.00	21.76
Holder	39.99	36.12	7.33	11.00	589	37	44.2	24.3	26.5	27.63	22.68
Weston	40.40	33.67	7.73	12.67	559	41	46.5	21.5	26.5	28.95	22.39