

*Modelling the Socioeconomic and Demographic Characteristics of One  
Nation's Vote*

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## ***Introduction***

Far right parties have long maintained a presence in the shadows of Australia's body politic. This longevity, however, has rarely transmogrified into any meaningful form of political relevance. Headlines have been made, public figures and politicians occasionally duped and even the odd parliamentary seat has been won, but the mainstream political agenda has proven largely impervious to influence from the extreme right. One Nation's success in winning 11 seats and almost a quarter of the vote in the 1998 Queensland state election fundamentally altered this natural order of things, albeit temporarily, by catapulting a moderate form of right-wing extremism firmly into the political mainstream. Indeed, the party's Queensland success, coupled with its performance in attracting almost one million votes at the 1998 federal election, represents a clear high water mark in terms of the far right's electoral impact on politics in Australia, and a level of success barely imaginable for its predecessors on the fringes of Australian politics.

Against this background, this paper uses aggregate level data to explore the socioeconomic, demographic and spatial characteristics of One Nation's support base. The findings indicate that the party's vote per postal area in both the 1998 and 2001 federal elections was closely related to local socioeconomic conditions, with support peaking in areas suffering relatively high levels of disadvantage and plummeting in more affluent locations. The level of ethnic diversity/homogeneity was also found to be an important determinant of the party's electoral success, with geographic location also identified as influential.

## ***General Methodology and Data***

In general terms, the methodology employed by this study is similar to the GIS-based approach adopted by Davis and Stimson (1998) in their study of One Nation's vote at 1998 Queensland state election. In this study, polling booth-level election results were linked with collector district (CD) level census data by assigning each of the 6448 Queensland CDs the election results of the booth closest to its centroid. This method enabled the authors to build a highly detailed picture of spatial distribution of One Nation's voting support as well as allowing an examination of the ecological correlates of

One Nation's vote at the 1998 Queensland state election at a relatively disaggregated level.

Where Davis and Stimson chose collector district-level census data linked with polling-booth level electoral results as their unit of analysis, this study uses election results and socioeconomic data taken from the postal area level. The postal-area-level unit of analysis was chosen, first, because it allowed for a relatively simple and accurate process of linking election results with census data; and second because the smaller scale, in spatial terms and in terms of population, allows for a far more precise and detailed picture of the relationship between voting patterns and underlying socioeconomic and demographic characteristics than analyses based at the electorate or regional level.

To begin with, election results for each static polling booth used in the 1996, 1998 and 2001 federal elections were collected from the Australian Electoral Commission, with each booth assigned a postcode according to its geographic location.<sup>1</sup> These results were then aggregated according to postcode, converted to percentages, and manually matched with postal area level data taken from the 2001 Australian Census. A small number of cases (113 from 1998 and 103 from 2001) where no matches were possible due to missing data were then excluded, leaving a final matched data-set of 2196 and 2060 cases for the 1998 and 2001 federal elections respectively.

Table 1 identifies and briefly describes the two dependent variables – One Nation's primary vote per postal area as recorded at the 1998 and 2001 federal elections – and the independent variables chosen for analysis. These 38 independent variables were chosen to cover a broad range of socioeconomic and demographic characteristics including age, income, employment status, occupation, education, ethnicity, religion and AEC seat classification, each of which earlier research suggested may impact upon electoral support for One Nation. The first 33 variables were drawn from the ABS Basic Community Profile data-set collected as part of the 2001 Census of Population and Housing. In addition to these variables, four Socio-Economic Indexes for Areas (SEIFAs) developed by the ABS were also chosen for analysis. These variables, created by combining a large number of component variables drawn from the census and subjecting them to Principal Components Analysis (PCA), each measure different aspects of the

underlying socioeconomic disadvantage/advantage of given spatial units, in this case, postal areas.<sup>2</sup>

The final independent variable used is a geographic measure based on the AEC's seat classification system which defines electorates as inner metropolitan, outer metropolitan, provincial, or rural. Inner metropolitan seats are described as comprising well-established built-up suburbs; outer metropolitan seats as areas of more recent suburban expansion; provincial divisions are divisions containing a majority of enrolled voters in major provincial cities, or in non-metropolitan urban conglomerates; and rural divisions are those without a majority enrolled in major provincial cities.<sup>3</sup> For the correlation analysis an ordinal scale was developed to measure the impact of geography on the ONP vote, with all postal areas in inner metropolitan seats coded as 1; outer metropolitan as 2; provincial as 3; and rural as 4 according to the AEC classification of the seat in which they were located.<sup>4</sup> This enables the impact of living in a rural as opposed to a provincial or urban location upon support for One Nation to be measured.

### ***Bivariate Analysis of the Socioeconomic and Demographic Characteristics of One Nation's Support Base***

To begin with, a simple bivariate correlation approach using was used to examine any underlying associations between One Nation's electoral support and the variables outlined in Table 1.<sup>5</sup> Correlation coefficients (Spearman's *rho*) measuring the relationship between One Nation's vote per postal area for the 1998 and 2001 federal elections and each independent variable are provided in Table 2. The table also includes the *r-squared*

**Table 1. Variables for analysis.**

VARIABLE	DESCRIPTION
<b>Dependent Variable:</b>	
ONP 1998	One Nation party primary vote (%) per postal area at the 1998 federal election
ONP 2001	One Nation party primary vote (%) per postal area at the 2001 federal election
<b>Independent Variables:</b>	
<b>AGE:</b>	
AGE 0–19	Percentage of population aged 0–19
AGE 20–39	Percentage of population aged 20–39
AGE 40–64	Percentage of population aged 40–64
AGE 65+	Percentage of population aged 65+
<b>RELIGION:</b>	
Protestant	Percentage of population identifying with Anglican, Presbyterian, Uniting churches
Catholic	Percentage of population identifying as Catholic
Christian fundamentalist	Percentage of population from Christian communities other than Catholic, Anglican,

	Uniting, Presbyterian and Orthodox churches
No religion	Percentage of population holding no religious beliefs
<b>INCOME/EMPLOYMENT</b>	
Low income	Percentage earning weekly family income of \$0–699.
Medium income	Percentage earning weekly family income \$700–1499
High income	Percentage earning weekly family income greater than \$1500
Unemployment rate	Unemployment rate (%)
<b>EDUCATION:</b>	
Low education	Percentage of population that left school after year 10 or never attended
Vocational education	Percentage of population with advanced diploma or diploma or certificate
High education	Percentage of population with postgraduate degree, graduate diploma or graduate certificate, bachelor degree
<b>OCCUPATIONAL SKILL:</b>	
High skill	Percentage of labour force employed as professionals, associate professionals, managers/administrators or advanced clerical workers
Medium skill	Percentage of labour force employed as tradespersons, intermediate clerical or intermediate production workers
Low skill	Percentage of labour force employed as elementary clerical workers or labourers and related workers
<b>INDUSTRY:</b>	
Agriculture	Percentage of labour force employed in agriculture
Mining, manufacturing, construction and energy	Percentage of labour force employed in Mining, manufacturing, construction and energy
Retail and wholesale	Percentage of labour force employed in retail and wholesale
Transport and communications	Percentage of labour force employed in transport and communications
Finance and property	Percentage of labour force employed in finance and property
Government, health and education	Percentage of labour force employed in government, health and education
<b>ETHNICITY:</b>	
Aboriginal/Torres Strait Islander	Percentage of population of Aboriginal or Torres Strait Islander descent.
Born in Australia	Percentage of population born in Australia
Born overseas	Percentage of population born in overseas
LOTE	Percentage of population who speaks a language other than English at home
Australian citizen	Percentage of population who are Australian citizens
Born in Europe	Percentage of population born in Europe
Born in Africa or Middle–East	Percentage of population born in Africa or the Middle–East
Born in Asia	Percentage of population born in Asia
Born in Americas	Percentage of population born in the Americas
<b>ABS SEIFA INDEXES</b>	
SEIFA Advantage/Disadvantage	SEIFA Index of Advantage/Disadvantage
SEIFA Disadvantage	SEIFA Index of Disadvantage
SEIFA Economic Resources	SEIFA Index of Economic Resources
SEIFA Education and Occupation	SEIFA Index of Education and Occupation
<b>GEOGRAPHY</b>	
AEC seat classification scale	AEC Seat Classification scale: (1=inner metro; 2= outer metro; 3= provincial; 4= rural)

statistic for each bivariate relationship, which denotes the percentage of variation in the dependent variable attributable to the independent variable. Overall, 37 of the 38 independent variables tested registered statistically significant correlations with the dependent variable 1998 ONP vote at the 0.01 level, the exception being Aged 65 years +. For the 2001 ONP vote all but 'Weekly Family Income \$700–1499' met the 0.01 standard of statistical significance. Of the 37 variables returning statistically significant correlations for the 1998 model, seven registered coefficients rated substantial or very

strong, 15 as moderate to substantial, 11 as low to moderate, and four as trivial. For the 2001 model, five variables registered relationships in the substantial to very strong category, 17 in the moderate to substantial range, 11 as low to moderate, and four as trivial.<sup>6</sup>

## Age

In terms of age, the results suggest that One Nation performed most strongly in areas with relatively higher population concentrations within the 0–19 and 40–64 year old age brackets at both the 1998 and 2001 elections. Conversely, as Table 2 indicates, the party seems to have performed relatively poorly in postal areas with larger numbers of people in the 20–39 age group, particularly in the 1998 poll, with the Spearman's *rho* coefficient of  $-0.26$  signifying a moderate negative relationship. Two other factors stand out. First, there is no evidence to suggest that support for One Nation is greater among older Australians. The relationships between the 'Aged 65+' variable and the 1998 ONP vote is not statistically significant, while the 2001 coefficient is negligible, despite being significant in statistical terms. This would appear to support findings reported by Bean (2000), and to a lesser extent, by Goot (1998). Second, it is quite clear that age became less of a determining factor in shaping the party's electoral support at the 2001 federal poll. Indeed, the coefficients for all age groups, both positive and negative, declined significantly between 1998 and 2001, to a point where age appears to have played little or no role in influencing either support for or opposition to One Nation in 2001.

**Table 2. 1998–2001 ONP vote (%) per postal area: Correlations (spearman's *rho*)**

Independent Variables	1998				2001			
	<i>rho</i>	<i>r squared</i>	sig	n	<i>rho</i>	<i>r squared</i>	sig	n
Age 0–19	0.17	0.03	0.00	2129	0.12	0.01	0.00	2021
Age 20–39	$-0.26$	0.07	0.00	2132	$-0.12$	0.02	0.00	2029
Age 40–64	0.20	0.04	0.00	2130	0.13	0.02	0.00	2015
Age 65+	0.01	0.00	0.75	2136	$-0.06$	0.00	0.01	2019
Aboriginal or Torres Strait Islander	0.46	0.21	0.00	2110	0.45	0.20	0.00	1993
Born in Australia	0.41	0.17	0.00	2127	0.32	0.10	0.00	2018
Born overseas	$-0.43$	0.19	0.00	2134	$-0.35$	0.12	0.00	2022
Speaks LOTE at home	$-0.44$	0.19	0.00	2099	$-0.37$	0.14	0.00	1995

Australian citizen	0.31	0.10	0.00	2123	0.22	0.05	0.00	2014
Born in Europe	-0.40	0.16	0.00	2142	-0.35	0.12	0.00	2027
Born in Africa or Middle East	-0.44	0.19	0.00	2127	-0.33	0.11	0.00	2011
Born in Asia	-0.39	0.15	0.00	2102	-0.31	0.10	0.00	1999
Born in Americas	-0.41	0.17	0.00	2124	-0.38	0.14	0.00	2014
Low income	0.46	0.21	0.00	2151	0.40	0.16	0.00	2035
Medium income	0.06	0.00	0.00	2136	-0.01	0.00	0.51	2020
High income	-0.49	0.24	0.00	2130	-0.44	0.19	0.00	2023
Seifa Advantage/Disadvantage index	-0.54	0.29	0.00	2145	-0.52	0.27	0.00	2032
Seifa Disadvantage Index	-0.46	0.21	0.00	2130	-0.49	0.24	0.00	2017
Seifa Economic Resources Index	-0.50	0.25	0.00	2139	-0.46	0.21	0.00	2029
Seifa Education Index	-0.54	0.29	0.00	2149	-0.56	0.31	0.00	2036
Unemployment rate	0.16	0.03	0.00	2129	0.10	0.01	0.00	2008
High skill	-0.21	0.04	0.00	2148	-0.22	0.05	0.00	2033
Medium skill	0.06	0.00	0.01	2140	0.08	0.01	0.00	2027
Low skill	0.37	0.14	0.00	2131	0.33	0.11	0.00	2014
Agriculture	0.53	0.28	0.00	2137	0.48	0.23	0.00	2023
Mining, manufacturing, construction and energy	-0.09	0.01	0.00	2121	-0.07	0.01	0.00	2005
Retail and wholesale	-0.14	0.02	0.00	2137	-0.17	0.03	0.00	2023
Transport and communications	-0.08	0.01	0.00	2139	-0.05	0.00	0.01	2022
Finance and property	-0.54	0.29	0.00	2126	-0.53	0.28	0.00	2022
Government, health and education	-0.22	0.05	0.00	2137	-0.32	0.10	0.00	2020
Low education	0.60	0.36	0.00	2152	0.59	0.35	0.00	2035
High education	-0.55	0.30	0.00	2103	-0.53	0.28	0.00	2009
Vocational education	-0.12	0.02	0.00	2151	-0.22	0.05	0.00	2034
Non-mainstream Christian	0.21	0.04	0.00	2110	0.14	0.02	0.00	1993
Protestant	0.43	0.19	0.00	2155	0.32	0.10	0.00	2038
Catholic	-0.16	0.02	0.00	2145	-0.14	0.02	0.00	2028
Holds no religious beliefs	-0.23	0.05	0.00	2153	-0.18	0.03	0.00	2036
AEC seat classification	0.47	0.22	0.00	2267	0.46	0.21	0.00	2135

Dependent variables are 1998 ONP vote (%) per postal area and 2001 ONP vote (%) per postal area.

## Religion

Religious denomination appears to play a significant role in shaping the electoral support enjoyed by One Nation, with a clear split between Catholic and Protestant areas evident. As Table 2 indicates, the percentage of Protestants per postal area was positively correlated with the One Nation vote, returning coefficients of 0.43 and 0.32 in 1998 and 2001 respectively. In contrast, Catholics appear much less likely to support One Nation,

the results indicating a moderate negative relationship,  $-0.16$  in 1998 and  $-0.14$  in 2001, between identification with the Catholic Church and the ONP vote.

The results also suggest a negative relationship between electoral support for One Nation and the percentage of the population holding no religious beliefs, with support for the party lower in areas with a higher level of non-sectarianism. This finding is at odds with results reported by Kelley (2001, 80), who found that '... regular church-goers are less keen on One Nation than are those leading secular lives ...' Given reported links between religiosity, as defined by frequency of church attendance, and right-wing authoritarianism the former finding is not surprising.<sup>7</sup> A moderate positive relationship between membership of Christian fundamentalist churches and the One Nation vote is also evident and confirms the results of research by Davis and Stimson (1998) who suggest this relationship may be the result of a traditional conservative mindset shared by non-mainstream Christian churches and One Nation.

### **Unemployment**

Table 2 shows the correlation coefficients indicating the relationship between electoral support for One Nation and the unemployment rate in each postal area. Surprisingly, given the economic thesis of extreme right voting, only a relatively weak correlation between the ONP vote and unemployment levels is evident:  $0.16$  for 1998 and  $0.10$  for 2001.<sup>8</sup> Though somewhat counter-intuitive, this finding is in accord with much of the ecologically-based research examining the underlying socioeconomic basis of electoral support for One Nation and for the far right more generally overseas, which has likewise identified only a marginal 'unemployment' impact. In terms of Australian research, Jeannette Money (1999, 19), for example, in her examination of factors counterbalancing One Nation's electoral attraction noted that unemployment added little explanatory power to her OLS regression model. Davis and Stimson's (1998, 81) more rigorous analysis estimated that support for One Nation increased just under  $0.2$  per cent for each 1 per cent increase in the unemployment level. Paul Reynolds (2000, 162) argued that One Nation's electoral support in Queensland during the 1998 federal election was concentrated in regional areas characterised, among other things, by comparatively high levels of unemployment. His argument, somewhat precariously based on the fact that eight of the 13 Queensland seats returning above-average levels of support for the

party, also showed above average-levels of unemployment. Finally, Grant and Sorensen's (2000, 204) cluster analysis of electorate level results in Queensland and New South Wales from the 1998 federal election suggested a link between the ONP vote and economic disadvantage, of which unemployment was only one component.

### **Income**

While the influence of unemployment levels on support for One Nation remains clouded, the impact of income is much clearer. High-income earners – those from a family earning in excess of \$1500 per week – appear decidedly less likely to support One Nation than those earning less than \$699, with middle-income earners seemingly ambivalent. With Spearman *rho* coefficients of  $-0.49$  and  $-0.44$  the negative relationship between the percentage of high-income earners per postal area and the ONP vote is substantial at both elections – the eighth and eleventh largest coefficients returned for the 1998 and 2001 models respectively. The positive relationship between the percentage of low-income earners and the ONP vote is only marginally weaker at  $0.46$  for 1998 and  $0.40$  for 2001 respectively, while the coefficients for middle-income earners are marginal for 1998 and not statistically significant for 2001.

### **Education**

As Table 2 indicates, the impact of education on an area's likelihood of supporting the party is even more marked than the effect of income, with One Nation's vote declining sharply as the population's education levels increase. The relationship between the percentage of the population in each postal area who left school in year 10 or earlier or who never attended school and the ONP vote registers as very strong at both the 1998 ( $0.60$ ) and 2001 ( $0.59$ ) federal elections. Those with vocational education appeared less likely to support the party, with the percentage of the population with advanced diplomas, diplomas, or certificates negatively correlated with support for One Nation, although at  $-0.12$  (1998) and  $-0.22$  the coefficients were low to moderate. The negative relationship between the ONP vote and the percentage of the population with higher educational qualifications ( $-0.55$  for 1998 and  $-0.53$  for 2001) was much stronger and reflected a reverse image of the results for the low-education variable. These findings mirror the

results of earlier Australian studies with low education levels appearing to be the most significant socioeconomic characteristic defining the party's support base.

### **Occupational skill**

As would be expected, the results for the occupational variables largely replicate, albeit at a significantly reduced magnitude, those reported for income and education. The ONP vote increases as the percentage of the labour force engaged in low-skilled occupations (those employed as labourers and elementary clerical workers) increases, the coefficients of 0.36 (1998) and 0.33 (2001) suggesting a moderate to substantial relationship. Conversely, support for the party declines as the percentage employed in high-skilled occupations (professionals, associate professionals, managers/administrators and advanced clerical workers) increases. Similar to the income variables, those in the middle-skill band show little inclination to either support or reject One Nation.

### **Industry**

Not surprisingly given the predominantly rural and regional spatial distribution of the party's electoral support, the results suggest a strong relationship between the ONP vote and employment in agriculture. As Table 2 shows, all of the other industry variables show a negative correlation with the party's vote, although the coefficients are marginal for mining, manufacturing, construction and energy, and transport and communications, and low for retail and wholesale. The high negative coefficients for the percentage of the labour force employed in finance and property, most likely reflect the city–country divide in the party's support base, given the relative concentration of these industries within urban rather than regional or rural areas.<sup>9</sup>

### **Ethnicity**

Not surprisingly, given One Nation's openly hostile position in relation to immigration and multiculturalism, bivariate analysis of the nine variables measuring different elements of ethnicity suggests that matters of race play a key role in determining both support for and opposition to the party. The results suggest that One Nation performed most poorly in areas with higher numbers of people born overseas, and where residents

regularly speak languages other than English at home. Conversely, the party's vote increased in areas with a greater percentage of people born in Australia, and with higher levels of Australian citizenship. Opposition to One Nation appears relatively uniform across migrant groups from all regions with the correlation coefficients for 1998 ranging just 0.05 from lowest ( $-0.39$  for those born in Asia) to highest ( $-0.44$  for those born in Africa or the Middle East and those born in the Americas). A similar pattern is evident for the 2001 model, with the coefficients across the four region of origin variables tested ranging just 0.07, from a low of  $-0.31$  for the percentage of Asian-born immigrants to a high of  $-0.38$  for the percentage born in the Americas.

Also of interest is the strong positive correlation recorded between the ONP vote and the percentage of the population from an Aboriginal or Torres Strait Islander background per postal area. Rather than indicating wide levels of indigenous support for the party – an unlikely scenario given One Nation's anti-Aboriginal outlook – this anomaly most likely reflects the concentration of the indigenous population in rural and remote communities where the party, as already noted, polled well. It is also feasible that the figure reflects a non-Aboriginal backlash against perceived preferential treatment for indigenous Australians in communities with larger Aboriginal populations, a major focus of One Nation's public discourse and political program.

### **Socio-Economic Indexes For Areas (SEIFA Indexes)**

Being composite scales composed primarily of different combinations of income, occupation, and education measures, the correlations for each of the SEIFA indexes closely mirror those previously reported for income, occupation and education. The Index of Advantage/Disadvantage coefficients of  $-0.54$  for 1998 and  $-0.52$  for 2001 reported in Table 2 suggest a strong negative relationship with support for One Nation, with the latter's vote highest in areas of relative disadvantage and lowest in areas of relative advantage. This is confirmed by the Index of Disadvantage, with high scores on the scale (depicting low levels of disadvantage) negatively correlated with the ONP vote. Interestingly, the more narrowly focused Index of Economic Resources provides strong support for the economic-interest thesis of right-wing extremism, with the party's vote rising in areas characterised by poor economic circumstances and falling in more affluent

areas. With correlation coefficients of  $-0.50$  and  $-0.46$  for 1998 and 2001 respectively, this represents a strong relationship between economic circumstance and the level of success enjoyed by One Nation. The relationship between electoral support for One Nation and scores on the Education and Occupation Index is also particularly strong with the coefficients of  $-0.54$  (1998) and  $-0.56$  (2001) indicating a marked decline in the ONP vote as the percentage of the population in each postal area with high education and high skill levels increases. As Davis and Stimson (1998, 79) observe, those with low skills and low education have borne the brunt of negative changes in the employment market in this era of economic restructuring. On the basis of these results it appears that One Nation's calls for protectionism and an end to bipartisan policies of economic rationalism have struck a chord with those most affected by these changes.

#### **Australian Electoral Commission seat classification scale**

Finally, the results provide further clear evidence of the rural basis of One Nation's electoral support, the correlation coefficients of  $0.47$  (1998) and  $0.46$  (2001) suggesting that the ONP vote per postal area increases significantly as one moves along the scale from urban areas to rural locations.

Overall then, the picture that emerges from the bivariate analysis is broadly consistent internally and with earlier research on the underlying socioeconomic characteristics of One Nation's electoral support. These results suggest that One Nation draws its greatest levels of support in rural Australia and particularly in socially and economically marginalised areas. The party's vote also appears positively related to the presence of high numbers of Protestant identifiers and members of non-mainstream Christian churches, while Catholics appear less likely to support the party. Conversely, One Nation's vote fell substantially in areas enjoying relative material and social advantage, in urban locations, and in areas with high concentrations of migrants who, not surprisingly, given Hanson's concerted and vocal opposition to immigration and multiculturalism, display a distinct reluctance to embrace the party.

## ***Multiple Regression Analysis of the Socioeconomic and Demographic Characteristics of One Nation's Support Base***

Based on the correlation analysis we can surmise that three primary underlying socioeconomic factors are most closely associated with the level of electoral support for One Nation – ethnicity; geographic location; and socioeconomic status. To examine more rigorously the nature of the relationships between these general factors and the ONP vote, an Ordinary Least Squares (OLS) multiple regression approach was adopted.

### **Variable Selection**

As de Vaus (2002, 113) suggests, given the ease of use of statistical packages such as SPSS, it is very tempting to adopt the 'fruit salad' approach to data analysis by throwing a large number of variables into the equation in the hope that something interesting will emerge. This approach may maximise the explanatory power of the model in terms of the R-Squared value returned, but the results will more often than not be misleading. The sensitivity of multiple regression techniques to multicollinearity – a problem that occurs where independent variables included in the model are themselves highly correlated – further compounds this problem. Including such variables in the same regression equation magnifies the standard error values for the predictors, greatly increases instability in the model and tends to render the regression coefficients unreliable as a gauge of the relative importance of each variable (Malhotra, Hall, Shaw and Oppenheim: 2002, 569.)

For these reasons, and for the often forgotten sake of parsimony, both the number of variables chosen for modelling and the specific combination selected were heavily restricted. As noted at the beginning of this section, the results for the correlation analysis suggested three primary underlying predictive axes of electoral support for One Nation: race, socioeconomic status and geography. The starting point in selecting the variables therefore, was the overriding need to include a measure of each of these three dimensions.

### **Socioeconomic status**

The SEIFA Advantage/Disadvantage scale was chosen for inclusion in preference to the other SEIFA indexes and the educational, occupational and income-related variables for

two main reasons. First, of all the variables relating to socioeconomic status it represents the broadest measure available incorporating data on income, wealth, education, occupational skill and unemployment levels. As the preceding correlation analysis indicated, each of these aspects of relative social and economic advantage and disadvantage had a significant impact on the level of electoral support for One Nation per postal area. Their close correlation, moreover, suggests that they are part of a broader underlying factor that is encapsulated by the concept of socioeconomic advantage/disadvantage.<sup>10</sup> Second, it is clear that not only does relative disadvantage in each of these areas have a positive impact on the party's vote, but also that relative advantage has a negative impact. For this reason, the broader advantage/disadvantage measure was preferred over the more narrowly constructed Index of Disadvantage.

### **Geography**

It is quite clear that geography played an important part in shaping One Nation's vote in the 1998 and 2001 federal elections. The evidence indicates that there is a distinct difference in the tendency of urban and of rural dwellers to vote for the party, with differences in the distribution of the ONP vote also evident from state to state. For this reason, two groups of dummy variables measuring the impact of geography on One Nation's vote have been included in the final regression model. The first group, again based on the AEC's seat classification system, measures the relative impact of inner metropolitan, outer metropolitan, provincial and rural location on support for the party, with the rural category acting as the reference group. The second group of dummy variables measures what can be described as the 'state effect' on the dependent variable, with One Nation's Queensland heartland serving as the reference group in this case.

### **Race/ethnicity**

Race or ethnic background also plays an important role in determining both electoral support for and opposition to One Nation. During the correlation analysis, nine variables relating to ethnic background were tested to examine their relationship with the One Nation vote per postal area, with almost all returning correlation coefficients in the moderate to substantial range. As well as being relatively strongly associated with

electoral support for the party, eight of these variables were closely correlated with each other.<sup>11</sup> Given the strong likelihood of multicollinearity if more than one of these variables were included, Principal Components Analysis (PCA), was used to combine these eight measures into a single usable measure.<sup>12</sup> This process creates ‘factor scores’ representing each postal area's 'Ethnicity' suitable for input in the model, with high positive scores representing a high level of ethnic diversity and high negative scores representing high levels of ethnic homogeneity.

### Methodology

Multiple regression techniques such as Ordinary Least Squares (OLS) assume that the data are normally distributed, that relationship between the dependent and independent variables are linear, and that variance is constant. Initial diagnostic testing revealed that the data failed to meet these assumptions. However, these problems were resolved by transforming both of the independent variables using a logarithmic transformation. The data was then screened for outliers using a methodology outlined by de Vaus.<sup>13</sup> During this screening process 19 of the 23 cases in the Northern Territory and 21 out of 23 in the Australian Capital Territory were identified as outliers which made their inclusion in the model problematic. Consideration was given to waving the outlier criteria for these two territories to enable their inclusion in the analysis. However, given the small number of cases involved and the subsequent difficulty of obtaining accurate coefficients, the decision was taken to drop both territories from the models.

With the outliers excluded from analysis, the 10 predictor variables were simultaneously entered into an OLS regression model with 'ONP 1998 vote per postal area' acting as the dependent variable. This process was then replicated with 'ONP 2001 vote per postal area' as the dependent variable. Summary statistics and standardised

**Table 3. Results for 1998/2001 OLS regression: standardised regression coefficients**

	Dependent variable = 1998 ONP vote per postal area (log transformation) n = 2096 Adjusted R-Squared = 0.75 Standard error of the estimate = 0.30	Dependent variable = 2001 ONP vote per postal area (log transformation) n = 1872 Adjusted R-Squared = 0.67 Standard error of the estimate = 0.33
Ethnicity scale	-0.23	-0.14
SEIFA Advantage/Disadvantage	-0.44	-0.43
Inner metro	-0.12	-0.15

Outer metro	-0.07	-0.15
Provincial	-0.02	-0.10
NSW	-0.20	-0.22
SA	-0.19	-0.24
Tasmania	-0.34	-0.31
Victoria	-0.62	-0.59
WA	-0.16	0.05

All coefficients statistically significant at .000 level

regression coefficients for each model are listed in Table 3. The Adjusted R-Square value of 0.75 for the 1998 model indicates that taken together the 10 predictors account for 75 per cent of the total variance in the One Nation vote per postal area recorded at the 1998 federal election. For the 2001 model the same variables together account for 67 per cent of the variation in One Nation's electoral support.

## Results

Of the 10 predictors tested in each model, all show an effect on the One Nation vote statistically significant at the .000 level. Interestingly, despite the party's national vote declining from 8.4 per cent to 4.3 per cent between elections, the underlying characteristics of One Nation's support base appears to have remained largely unchanged. There is some evidence to suggest that the party's vote in 2001 was marginally more deeply rural in nature than in 1998, that ethnicity was less of a determining factor and that the 'home state' effect on the party's vote, particularly the difference between Queensland and Western Australia, declined between elections. On the whole though, the results that emerge from both models are quite consistent.

## Socioeconomic advantage/disadvantage

Importantly, given the debate concerning the causes behind the emergence of One Nation, the models provide clear evidence of a link between socioeconomic advantage/disadvantage and the One Nation vote at both the 1998 and 2001 federal elections. In both polls, socioeconomically marginalised postal areas marked by characteristics such as low levels of income and wealth, low education and skill levels and high unemployment were significantly more likely to vote for Hanson than areas enjoying greater levels of socioeconomic advantage. The standardised regression coefficient in both models indicates that holding the other variables constant, for each

unit shift in the Index of Advantage/Disadvantage, One Nation's electoral support moves by just over 0.4 per cent, with high scores on the advantage/disadvantage index (representing high levels of advantage) corresponding to a low One Nation vote, and conversely, low scores (high levels of disadvantage) translating into high levels of electoral support for the party. This is a relatively large effect with the standardised coefficient ranked second in terms of magnitude in both the 1998 and 2001 models.

While it is not possible to extrapolate individual motives from aggregate data, the results would nevertheless appear to support socioeconomic theories of right-wing extremism and the view that Hanson's brand of politics has been particularly attractive to those marginalised and put at risk by the massive process of economic restructuring undertaken in Australia over the past two decades largely in response to global economic pressures.

### **Ethnicity**

In line with the earlier correlation analysis, the regression results suggest that ethnicity plays a significant role in shaping electoral support for One Nation. Not unexpectedly, at both elections One Nation performed relatively poorly in postal areas that scored high positive values on the Ethnicity scale – those areas characterised by high migrant populations, particularly from non-English-speaking backgrounds. In contrast, the results indicate that the party's vote rose markedly in areas that scored high negative values on the scale – areas with relatively higher percentages of Australian-born residents and holders of Australian citizenship. The standardised regression coefficient of  $-0.23$  for the 1998 model suggests that the ONP vote will shift up or down approximately 0.23 units with each one-unit shift on the Ethnicity scale, with the 2001 model showing a considerably smaller effect. Although it still had a substantial impact on One Nation's electoral support per postal area, on the basis of these results the relative influence of ethnicity appears to be much less significant than socioeconomic advantage or disadvantage.

### **Political geography**

#### **i) The 'state effect'**

The regression results confirm a clear regional component to the spatial distribution of One Nation's electoral support, with postal areas in all other states significantly less likely to support the party at both the 1998 and 2001 federal elections than those in Queensland, One Nation's state of origin. The analysis controls for state-to-state variations in ethnic composition and socioeconomic profile, and for differences in the distribution of the population across inner metro, outer metro, provincial and rural areas as measured by the other predictor variables, which means that the interstate differences observed here are caused by factors extraneous to the model. Using Queensland as the baseline, Western Australia, South Australia and New South Wales emerge as the next most successful states for One Nation, with postal areas in Tasmania and particularly Victoria least likely to support the party. In practical terms, the model indicates that holding all other variables constant, the 1998 ONP vote in Western Australia could be expected to reach 84 per cent of the party's vote recorded in Queensland, 81 per cent of the Queensland figure in South Australia and 80 per cent in New South Wales. In contrast, after controlling for the effects of the other variables, the party's vote could be expected to reach just 38 per cent and 66 per cent of the Queensland total in Victoria and Tasmania respectively.

The picture emerging from the 2001 model is generally similar, although the slight fall in the standardised coefficients for Victoria, Western Australia and Tasmania may reflect a lessening of the 'home state' effect at the 2001 election. The coefficient for Western Australia, at 0.05, suggests very little underlying difference between the latter and Queensland, all other factors being equal, in terms of the base level of support for One Nation. This in itself is not surprising. Indeed, a state-by-state analysis of the party's vote at the 2001 election indicates that One Nation's performance in the west was the stand-out result for the party in 2001. While the ONP vote across Australia in 2001 was effectively halved, in Western Australia the fall was restricted to a relatively respectable 32 per cent. This compares to a 51 per cent decline in Queensland, 52 per cent in South Australia and 47 per cent in New South Wales (Australian Electoral Commission: 2002).

## **ii) Rural–urban divide**

The other spatially orientated variables included in the models, those measuring the relative impact of rural, provincial, outer urban and metropolitan location upon support for One Nation, also proved to be statistically significant, though in most cases less influential than the state effects identified. As the results indicate, using the rural category as the baseline, postal areas in metropolitan, outer urban and provincial locations were each progressively less likely to vote for One Nation at the 1998 election, with the standardised regression coefficients for each variable registering at  $-0.12$ ,  $-0.07$  and  $-0.02$  respectively. In practical terms these figures suggest that holding all other variables constant, the ONP vote in inner city areas could be expected to reach 88 per cent of the level in rural areas, with comparative figures of 93 per cent and 98 per cent in outer urban and provincial areas.

Likewise, the coefficients for 2001 indicate that those in postal areas in inner and outer metropolitan and provincial areas were all less likely to support One Nation than their rural counterparts. Interestingly, the negative standardised regression coefficients for outer metropolitan and provincial areas each increased significantly from 1998 to 2001, with the metro coefficient also rising marginally. This would suggest that One Nation's electoral support at the latter poll was more distinctly rural than three years earlier. The change in the outer metro regression coefficient from  $-0.07$  to  $-0.15$  is also interesting given Davis and Stimson's contention that voters in these areas constitute an important component of One Nation's support base. The results would suggest that if this was indeed the case in 1998, it was markedly less so in the 2001 election.

## **Conclusion**

This paper has used both bivariate correlation analysis and OLS multiple regression modelling of aggregate census data and electoral data at the postal-area level to shed light on the socioeconomic, demographic and spatial characteristics of One Nation's vote at the 1998 and 2001 federal elections. The results of the correlation analysis are broadly consistent with earlier research and suggest that One Nation drew its greatest levels of support in rural Australia and in socially and economically marginalised areas. In locations with high numbers of unskilled workers with low levels of education, high concentrations of low-income earners and a low level of ethnic diversity, the party's vote

was particularly strong. By contrast, support for One Nation declined markedly in areas of material and social advantage, in urban locations and in areas with high migrant populations. One Nation's vote also appears positively related to the presence of high numbers of people identifying as Protestant and as members of non-mainstream Christian churches, which perhaps signifies, as Davis and Stimson (1998, 79) speculate, a sense of longing for 'traditional values' or a more conservative mindset.

The picture that emerges from the multiple regression analysis, though more limited in scope because of the practical requirements of the methodology, is clearly congruent with the bivariate results. The regression results confirmed the importance of socioeconomic status, ethnicity and geographic location as key predictors of the One Nation vote at both the 1998 and 2001 federal elections. Relative levels of socioeconomic advantage/disadvantage proved particularly influential, with high levels of advantage negatively related to the ONP vote and high levels of disadvantage positively related to it. It was also quite clear from these results that ethnicity acts as an important determinant of the One Nation vote, with the party performing well in 'traditional Anglo-Australia' and poorly in migrant areas. In addition to the influence of these factors, One Nation's vote also increased markedly from a low base in metropolitan and outer metropolitan areas, through a middle band in provincial Australia to a peak in rural postal areas. A 'state effect' was also identified, with the party's vote peaking in Queensland, and to a slightly lesser degree in Western Australia. Both these spatially oriented variables clearly demonstrate that geography plays an important part in determining electoral support for the party, over and above the effects of ethnicity and socioeconomic status.

What then do these results reveal about the factors behind the party's emergence? While it is impossible to gauge the motivations of individual voters from aggregate-level studies such as this, the results nevertheless enable a few general observations to be made in response to this key question. First, both the bivariate and the multivariate modelling provide general support for the argument that the rise of One Nation is closely related to high levels of socioeconomic disadvantage. It was areas with high concentrations of the poor, the unskilled and the uneducated – those areas most disadvantaged by the impact of domestic economic restructuring and the globalisation of economic activity – that most readily embraced One Nation as an electoral alternative to the major parties. This

observation fits comfortably with socioeconomic and global theories of right-wing extremism developed in response to the rise of the far right in Europe in particular.

Importantly, the effects of socioeconomic status appear far more influential than race. This is not to say that racism, as suggested by many commentators, is not a key part of One Nation's attraction. Once again, the use of aggregate-level data necessarily limits the conclusions that can be drawn from the results. The latter suggests, however, that there is a well-developed understanding within areas with larger migrant populations that One Nation is hostile to their interests, a sense curiously not shared by more traditional 'Anglo-ethnic' areas. The fact that migrant populations are typically low in areas where One Nation has been most successful, however, would seem to suggest that if racism as opposed to race plays a role, it is fear of difference or displacement – xenophobia rather than immediate experience or direct competition – that is the primary motivating factor.

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<sup>1</sup> Three booths from 1996 and four from 1998 were excluded from analysis because they were located outside recognised postal areas.

<sup>2</sup> For a detailed technical explanation of the development of the SEIFAs see Australian Bureau of Statistics, *Census of Population and Housing: Socio-Economic Indexes for Areas (SEIFA) Australia 2001*, Technical Paper No. 2039.0.55.001, Commonwealth of Australia, 2004.

<sup>3</sup> See Australian Electoral Commission, *National Electoral Division Profiles*, December 1998, p. v.

<sup>4</sup> A small number of postal areas were located in two or more electorates with different AEC classifications. Where this was the case the classification of the electorate with the highest number of formal votes recorded in that postal area was allocated.

<sup>5</sup> Full details of the statistical methodology used are available from the author on request.

<sup>6</sup> As a guide, coefficients within the order of 0 to 0.1 are generally regarded as trivial; 0.1 to 0.3 as low to moderate in strength; 0.3 to 0.5 as moderate to substantial; 0.5 to 0.7 as substantial to very strong; through to near perfect for coefficients in the range 0.9 to 1.0. See David de Vaus, *Analyzing Social Science Data: 50 Key Problems in Data Analysis*, London: Sage Publications, 2002, p. 272.

<sup>7</sup> See for example Bob Altemeyer, *Enemies of Freedom: Understanding Right-Wing Authoritarianism*, San Francisco: Jossey-Bass, 1988; and Bob Altemeyer and Bruce Hunsberger, 'Authoritarianism, religious fundamentalism, quest and prejudice', *The International Journal of Psychology and Religion*, vol. 20, 1992, pp. 113–33. Both cited in Gary Leak and Brandy Randall, 'Clarification of the link between right-wing

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authoritarianism and religiousness: The role of religious maturity', *Journal For The Scientific Study of Religion*, vol. 34, no. 2, 1995, pp. 245–6.

<sup>8</sup> For an alternative survey-based analysis which refutes the primacy of the economic thesis see Goot, Murray and Ian Watson, (2001) 'One Nation's electoral support: Where does it come from, what makes it different and how does it fit?', *Australian Journal of Politics and History*, vol. 47, no. 2, pp. 159–91.

<sup>9</sup> The correlation coefficient of  $-0.74$  for the AEC seat classification scale and the finance and property variable indicates a very strong negative relationship.

<sup>10</sup> For the same reason income, occupation and education variables could not be included in the model separately, given the negative effects of multicollinearity already mentioned.

<sup>11</sup> The exception was the Aboriginal and Torres Strait Islander variable.

<sup>12</sup> The Aboriginal and Torres Strait Islander variable was excluded from the ethnicity scale because of its low correlation with the other variables. Full details of the PCA process, including diagnostics, are available from the author on request.

<sup>13</sup> For full details see de Vaus, *Analyzing Social Science Data*, pp. 93–8.