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# **ESTIMATING IRISH PARTY POLICY POSITIONS USING COMPUTER WORDSCORING: THE 2002 ELECTION\***

## **A RESEARCH NOTE**

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### **INTRODUCTION**

Developments in the computerized analysis of political texts now make it much easier than before to investigate large volumes of political text in order to estimate the policy positions of the authors. Previous content analyses of party manifestos, for example, have relied on the hand coding of texts (Budge et al., 1987; Laver and Budge 1992, Klingeman et al, 1994; Budge et. al., 2001) or on dictionary-based computer coding techniques (Laver and Garry, 2000; Kleinnijenhuis and Pennings, 2001; Garry, 2001; de Vries et al. 2001; Bara, 2001). Such analyses, even those based on computer coding dictionaries, require heavy human involvement or intervention, creating both a huge resource cost and the possibility that the many judgment calls inevitably involved will incorporate the biases of the analyst into the results. In an attempt to move beyond these shortcomings, Laver, Benoit and Garry (2002) developed a new probabilistic “word-scoring” method for computerised text analysis and cross-validated this against completely independent sources of data on policy positions. This work included computerised text analysis of Irish party manifestos from the 1997 elections and the technique has recently been extended (Laver and Benoit, 2002) to the analysis of Irish parliamentary speeches. In this paper we use the word-scoring technique to estimate the policy positions of Irish party

manifestos in the 2002 election on four dimensions: economic and social policy, environmental policy, and policy on Northern Ireland. The results reported here are from an analysis that was completed within days of the release of the manifestos, and produced initial results before the election had actually taken place.

The method replicates that described in Laver, Benoit and Garry (2002) and applied to Irish parliamentary speeches in Laver and Benoit (2002). As reference texts from which to calculate the scores of the words in the 2002 manifestos on a range of important policy dimensions, we used the party manifestos issued during the 1997 election campaign by Fianna Fáil, Fine Gael, the Progressive Democrats, the Labour Party, the Green Party and Sinn Féin. As reference scores of the policy positions of these texts, we used the means of expert survey estimates of the 1997 party policy positions on the four dimensions investigated, reported in Laver (1998). The 1997 manifesto texts and estimated policy positions allowed us to score each of the different words used in these reference texts on each key policy dimension. Assuming that the political lexicon has not changed in any dramatic way since 1997, and thus that the set of 1997 manifestos is an appropriate point of reference for estimating the positions of party manifestos in 2002<sup>1</sup>, we then used the word scores we derived to score the 2002 manifestos of the same six political parties.<sup>2</sup> This allowed us to estimate policy positions on each of the policy dimensions under investigation. The results are shown in Tables 1 and 2.

## **POLICY POSITIONS IN 2002**

### **Economic policy**

Table 1 gives our manifesto-based of the economic policy positions of the Irish parties in 2002. These are given substantive meaning by the definition of the 1997 expert survey scale used to

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\* A full replication dataset, including the manifesto texts and computer code needed to reproduce the results in this paper is available from <http://benoit.tcd.ie/wordscores/>.

<sup>1</sup> This is of course the assumption used by any content analysis, however conducted, that makes comparisons between party manifestos at two different elections.

<sup>2</sup> All texts were purged of references to the names of the parties, such as “Fianna Fail,” “Fine Gael,” “Progressive Democrats,” etc. and “Labour” when it was used to mean “Labour Party.” All of the 2002 manifestos were downloaded from the parties’ web sites, converted to plain text, and run through the procedure within the three week campaign period prior to the May 17, 2002 election.

score the references texts – a scale that contrasts higher taxation and government spending, on the left, with lower taxation and spending, on the right. The estimated party positions generated by computer word scoring suggest that the main substantive changes were a sharp shift to the left by the Green Party, and a shift towards the centre by both the Labour Party and Sinn Féin. Those who are surprised at the location of the Green party as the most left-wing of the main Irish parties in 2002 might be interested in the following bulleted summary of the party's economic policy, taken straight from its manifesto:

In Government, the Green Party will

- Transfer the bias in the collection of taxes from taxes on income to eco- taxes. This will mean different - not more - taxation;
- Increase the proportion of tax take by 0.5% of GDP per annum through additional taxes other than personal taxation (e.g. corporation tax, tax on industrial fuel etc.)
- Weight expenditure on transport in favour of public transport, non-private motor car use, pedestrianisation, and cycleways;
- Legislate to confer favoured status on a non-profit directed financial sector, e.g. the Credit Union Movement;
- Introduce a 5% Social Solidarity Levy on the profits of banks and financial institutions;
- Ensure that ethical investment is adhered to in all areas of government activity;
- Increase expenditure on Community Development;
- Establish fiscal measures to assist parents who wish to care for their own children;
- Reverse the damage done by Individualisation with a phased introduction of Refundable Tax Credits for all.

This clearly promises significant increases in public spending, notably on public transport and community development, funded by tax increases for the corporate and especially the banking and financial sector. In contrast the economic policies of Sinn Féin, often presented as a left-wing alternative in the Irish party system, were summarized in their own manifesto as follows:

Sinn Féin Proposes:

- More support for Small Businesses.
- Developing New Local Brands
- Matching Funds for Local Business.
- Long-term stability.
- The inclusion of penalty clauses in all agreements with companies receiving government grants, in the event of the company pulling out.
- Support for enterprises in the Social Economy.
- Trade Union Recognition. Sinn Féin will make grants to business conditional on acceptance of the right of employees to join and to be represented by a trade union of their choice.
- Funding a Return to Education.
- Support for Agricultural Diversification.

While there was much on improved health care and education in the Sinn Fein manifesto, this was a concern shared by all parties, and did not distinguish them from each other. One of the most distinctive features of Sinn Fein economic policy, however, was support for small and local businesses, a policy that did not establish it on the basis of the word-scoring technique as being particularly left-wing.

The net result was that the computerized analysis of actual manifesto content in 2002 was able to establish little significant difference between the economic policy positions of the three main parties, Fianna Fail, Fine Gael and Labour. The PDs were located significantly to the right and Sinn Fein located somewhat to the left, with the Greens providing the left-wing anchor to the economic policy dimension.

### **Social policy**

One of the considerable successes of the word scoring technique has been its ability to capture party policy positions in areas other than economic policy. Laver, Benoit and Garry (2002), for example, found that estimates of social policy positions derived from computer word scoring were significantly closer to independent estimates of these positions than estimates derived from either human-coded content analysis or dictionary-based computer coding. The social policy positions of the Irish parties in 2002 are estimated in terms of the 1997 expert survey scale contrasting liberal or conservative attitudes to matters such as abortion and homosexuality. Table 1 shows that there was less variation than for economic policy in the positions of the parties on this dimension, both in the expert survey results and in the 2002 estimates based on computer word scoring. The most distinctive feature of the 2002 results is a shift to the liberal end of this dimension by the Green Party, a position illustrated by the party's forthright manifesto statement on gay and lesbian rights: "The Green Party/Comhaontas Glas favours the strong use of anti-discrimination legislation to remove remaining discrimination against the gay and lesbian communities." This leaves Labour, the PDs and Fine Gael located at the center-left of this dimension, followed on the center right by Fianna Fáil and Sinn Féin. Apart from the leftward move of the Greens, this represents no dramatic change from the judgments of the Irish experts at the time of the 1997 election.

**Environmental policy**

One of the great benefits of computerized word scoring is that it is very easy to extend the set of estimated policy positions to any policy dimension for which independent estimates are available of the policy positions of the reference texts. Table 2 shows the positions of the Irish parties on an environmental policy dimension, defined by the 1997 expert survey scale contrasting protection of the environment even at the expense of economic growth, at one end, with promotion of economic growth even at the cost of damage to the environment, at the other. The results from 2002 showed that the computer coding of the 2002 manifestos clearly picked up the “Greens versus the rest” structure of party positions on this dimension that was judged by the experts to be the case in 1997 – almost nothing appears to have changed on this dimension in 2002.

**Northern Ireland policy**

Though not a significant partisan issue in the 2002 election, the electoral presence of Sinn Féin in the election and its distinctive position on this dimension mean that it is interesting to estimate party policy positions on Northern Ireland. This scale is given meaning by the 1997 expert survey scale contrasting attitudes to an immediate British withdrawal from Northern Ireland, with the experts in 1997 locating Sinn Féin at one end of this spectrum and the PDs towards the other, with Fianna Fáil closest of the other Irish parties to Sinn Féin. The computer-generated estimates in 2002 continue to place Sinn Féin at one end of the scale and the PDs at the other. Perhaps the most striking shift suggested by the computer coding is the move away from the republican end of this dimension by Fianna Fáil – the Republican Party. This might be interpreted as an implausible result of computer coding. However, consideration of the actual content of the long discussion of Northern Ireland in the FF manifesto shows that it may well also be the result of strong support for the Good Friday Agreement in which it was intimately involved, combined with a managerial attitude, as the outgoing government, to working with Britain to make the Agreement work. Fianna Fáil’s manifesto “agenda for the years ahead” for Northern Ireland does not have a particularly republican ring to it:

We will work with the British Government, the Northern Ireland Executive and the parties and communities in Northern Ireland to find solutions to outstanding problems in the implementation of the Agreement, in order to ensure the smooth functioning of all the institutions established under the Good Friday Agreement. We will also seek to complete with the help of all concerned, the transformation of organisations involved in paramilitarism, so that the highest standards of democracy and human rights can apply.

Fianna Fáil pledges for what it would do in government include those to:

cooperate with the British Government in the British-Irish Intergovernmental Conference and bilaterally, on non-devolved matters.

within the framework of the British-Irish Council, develop cordial bilateral relations with Scotland and Wales and other autonomous regions, as well as with the UK as a whole

be supportive of the new Police Service of Northern Ireland established in conformity with the recommendations of the Patten Report, the Office of the Police Ombudsman, and of a reformed administration of justice.

And the FF manifesto statement on a future united Ireland was couched in very conciliatory terms, pledging the party to:

support in the longer term, a pluralist and multicultural united Ireland, brought about peacefully and by agreement, in accordance with the provisions and the spirit of the Good Friday Agreement, bearing in mind the ongoing desire of many in the Nationalist community in Northern Ireland to participate in an independent Ireland. Fianna Fáil equally recognise the need to address the legitimate fears of the Unionist community for their identity and security in a changing context.

Given these types of statement, it is not really very surprising that a content analysis of the FF manifesto would yield a position that was not at the more strongly republican end of the Northern Ireland policy dimension.

## **ANALYSIS**

Overall, the computerized text analysis of the 2002 party manifestos shows that a statistical analysis of the words in these texts is, in terms of face validity, well able to pick up in a systematic way the positions of the main parties on key policy dimensions. It is important to remember that these policy positions were estimated without reading the texts, and indeed without using any knowledge of the language in which they were written. The overall results of this analysis thus replicate earlier successes of the word

scoring technique reported in Laver, Benoit and Garry (2002) and Laver and Benoit (2002).

This success gives us some encouragement to take the results seriously in substantive terms, and to consider their implication for the evolving Irish party system. In the period after the 1997 election, one significant change in this system was the merger of Democratic Left and the Labour Party – apparently vacating some political space on the left. The other was the emergence of Sinn Féin as legitimate electoral force within the Republic, in the wake of the IRA ceasefire and moves towards decommissioning, combined with Sinn Féin occupation of ministerial positions in the Northern Ireland Executive.

The gap on the left appears to have been filled with alacrity by the Green Party. While its policy position on the environment is entirely what one might expect, its position on economic policy is unequivocally on the left – a position that perhaps reflects less fear of frightening the horses than of the Labour Party. The Green Party manifesto is also unequivocally liberal on social policy, moving the party into what currently appears to be empty space on the liberal left of the party system.

The policy positions of Sinn Féin appear to be somewhat less clear cut. Its position on Northern Ireland was unsurprisingly distinctive, and easily picked up by the word-scoring analysis. Its economic policy appears to the left of the mainstream parties, including Labour, but, given its essentially nationalist concern with building up indigenous Irish businesses, does not come out, contrary to some popular perceptions, as being very left-wing. Its social policy position – in contrast to the Greens' forthright support for gay rights for example – is also very much in the mainstream. Indeed SF concern with the need to deal with urban crime and drug addiction is one typically shared with parties at the more conservative end of the social policy dimension. All in all, these positions mark out Sinn Féin as a party with a distinctive position on Northern Ireland, to be sure, but otherwise interested in moving into the territory of the mainstream Irish parties rather than marking out a distinctive position on the liberal left.



These patterns are summarized in Figure 1, which shows estimated movements in Irish policy positions since between 1997 and 2002 in a policy space defined by economic policy on the horizontal axis and social liberalism on the vertical. The PDs remain on the right of the system, perhaps less liberal in their social policy positions than in 1997. Fianna Fáil and Fine Gael remain almost undistinguishable on the centre-right in terms of the content of their manifestos. Labour, on the basis of its manifesto, appears to have moved somewhat towards the center of the system despite its merger with the more left-wing Democratic Left, and to have become very much a party of the Irish mainstream rather than a distinctive presence on the left. The two dimensional representation is interesting in term of general patterns of party competition, however. The two parties that shared five years in government, Fianna Fail and the PDs, moved towards each other in the policy space. The two parties that formed the core of any credible alternative to the incumbent government, Fine Gael and Labour, also moved together. The net result was that all of the mainstream parties seem to have been moving towards the centre of the policy space. Of the two parties challenging the mainstream – and also doing well in the election – the Greens moved to occupy what has become empty space on the liberal left, while Sinn Féin showed clear signs, in its moves towards Fianna Fail, of designs on the support base of the self-proclaimed Republican Party.

#### **POSTSCRIPT: THE FF-PD “PROGRAMME FOR GOVERNMENT”**

In the days immediately following the election, Fianna Fail began negotiations with the Progressive Democrats on the formation of the next coalition government. On June 4, 2002 the two parties signed their *Programme for Government*, a 14,100-word document containing their statement of policy priorities for the coalition formed from the 81 FF TDs and the 8 PDs elected to the Dail on May 17, 2002.<sup>3</sup> The day after its release, we downloaded the document and scored it as a virgin text on the four policy dimensions indicated. The results for social and economic policy are depicted in Figure 1 (the square

symbol marked “PFG”). The results for both of these dimensions is a policy score squarely along the two-dimensional axis between the positions of FF and the PDs. In addition, given the margin of error, the document is statistically indistinguishable from the policy position of FF on these dimensions, but distinct from that of the PDs, indicating that the bulk of its policy content was determined by FF and not by its junior coalition partner. Similar results placing the policy scores of the *Programme for Government* between the FF and PD scores were obtained for the environment and Northern Ireland policy dimensions.<sup>4</sup>

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<sup>3</sup> This was the word count as recorded by the wordscoring software, omitting punctuation marks and proper names of parties. The results were that 97.3% of the virgin text words were scorable, and some 2,112 unique words scored.

<sup>4</sup> To be precise, the transformed scores were: Environment, 12.2, with a 95% confidence interval of 11.6, 12.9; and Northern Ireland, 12.2, with a 95% confidence interval of 10.9, 13.4.

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**Table 1: Estimated economic and social policy positions of Irish party manifestos 2002.**

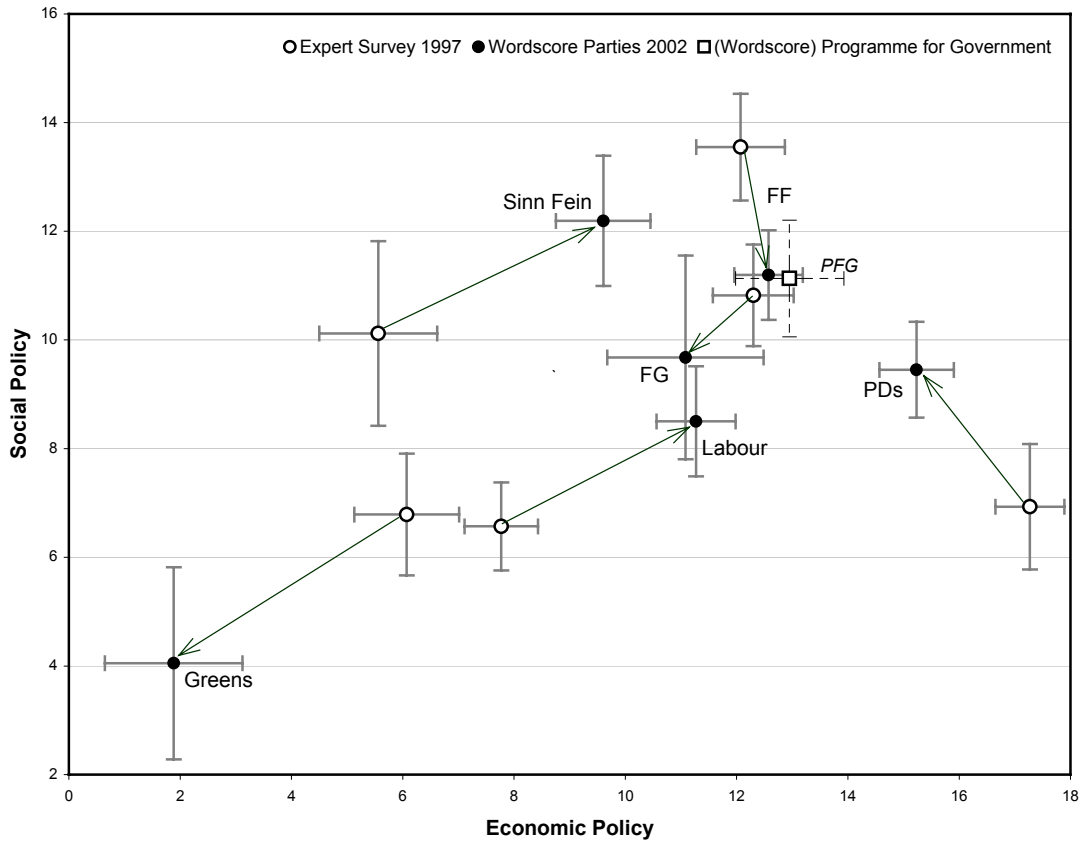
Reference Texts	<i>Sinn</i>		<i>Fianna</i>		<i>Fine</i>	
	<i>Fein</i> 1997	<i>Greens</i> 1997	<i>Labour</i> 1997	<i>Fáil</i> 1997	<i>Gael</i> 1997	<i>PDs</i> 1997
<i>Economic Policy</i>						
<b>Expert survey Economic 1997 mean</b>	<b>5.56</b>	<b>6.07</b>	<b>7.77</b>	<b>12.07</b>	<b>12.30</b>	<b>17.27</b>
S.E. expert survey 1997 ( <i>n</i> =30)	.530	.470	.330	.398	.363	.310
<i>Social Policy</i>						
<b>Expert survey Social 1997 mean</b>	<b>10.12</b>	<b>6.79</b>	<b>6.57</b>	<b>13.55</b>	<b>10.82</b>	<b>6.93</b>
S.E. expert survey 1997 ( <i>n</i> =30)	.850	.560	.405	.491	.467	.577
Text length in words	4,028	9,906	35,200	40,351	25,721	15,270
Total Unique Words	1,260	2,277	3,981	4,932	3,385	2,621
Virgin Texts	<i>Sinn</i>		<i>Fianna</i>		<i>Fine</i>	
	<i>Fein</i> 1997	<i>Greens</i> 2002	<i>Labour</i> 2002	<i>Fáil</i> 2002	<i>Gael</i> 2002	<i>PDs</i> 2002
<i>Economic Policy</i>						
Raw score ( <i>Svd</i> )	10.2594	10.0784	10.2984	10.329	10.294	10.3913
S.E.	0.010	0.014	0.008	0.007	0.016	0.008
<b>Transformed Economic Wordscore</b>	<b>9.60</b>	<b>1.88</b>	<b>11.27</b>	<b>12.58</b>	<b>11.08</b>	<b>15.23</b>
Transformed 95% Confidence Interval	(8.76, 10.45)	(0.65, 3.12)	(10.56, 11.98)	(11.96, 13.19)	(9.68, 12.49)	(14.57, 15.90)
<i>Social Policy</i>						
Raw score ( <i>Svd</i> )	9.2110	9.1240	9.1716	9.2004	9.1842	9.1817
S.E.	0.006	0.009	0.005	0.004	0.010	0.005
<b>Transformed Social Wordscore</b>	<b>12.19</b>	<b>4.05</b>	<b>8.50</b>	<b>11.20</b>	<b>9.68</b>	<b>9.45</b>
Transformed 95% Confidence Interval	(10.99, 13.39)	(2.28, 5.82)	(7.49, 9.52)	(10.37, 12.02)	(7.8, 11.55)	(8.57, 10.34)
Text length in words	20,889	10,111	26,994	34,816	8,226	35,216
Total unique words scored ( <i>Nv</i> )	2,646	1,977	2,989	3,090	1,657	3,012
% virgin words scored	95.9	95.9	96.2	96.8	96.5	96.2
Unique unscorable words	678	331	792	800	227	668
Mean frequency of unscorable words	1.26	1.24	1.28	1.38	1.29	2.00

*Notes:* Reference scores are mean of 1997 expert survey scores; reference texts are 1997 party manifestos.

**Table 2: Estimated Environmental and Northern Ireland policy positions of Irish party manifestos 2002**

<i>Party</i>	<i>Sinn Fein</i>	<i>Greens</i>	<i>Labour</i>	<i>Fianna Fáil</i>	<i>Fine Gael</i>	<i>PDs</i>
<b>Environmental Policy</b>						
<i>Expert Survey 1997</i>						
Mean 1997	<b>9.85</b>	<b>1.70</b>	<b>10.97</b>	<b>13.50</b>	<b>13.03</b>	<b>12.97</b>
S.E. 1997 (n=30)	.78	.17	.43	.62	.37	.51
<i>Wordscore 2002</i>						
Raw score ( <i>Svd</i> )	10.4933	10.158	10.4669	10.5336	10.4808	10.5403
S.E.	0.010	0.017	0.008	0.007	0.016	0.007
Transformed Wordscore	<b>11.93</b>	<b>1.53</b>	<b>11.11</b>	<b>13.18</b>	<b>11.54</b>	<b>13.39</b>
Transformed 95% Confidence Interval	(11.34, 12.52)	(0.45, 2.61)	(10.60, 11.62)	(12.74, 13.61)	(10.54, 12.54)	(12.94, 13.83)
<b>Northern Ireland Policy</b>						
<i>Expert Survey 1997</i>						
Expert survey 1997 mean	<b>1.07</b>	<b>9.08</b>	<b>8.73</b>	<b>5.53</b>	<b>11.03</b>	<b>12.29</b>
S.E. 1997 (n=30)	.05	.45	.46	.36	.58	.62
<i>Wordscore 2002</i>						
Raw score ( <i>Svd</i> )	7.9522	8.0107	8.0891	8.0691	8.0227	8.0898
S.E.	0.009	0.012	0.007	0.007	0.015	0.007
Transformed Wordscore	<b>1.48</b>	<b>5.91</b>	<b>11.83</b>	<b>10.32</b>	<b>6.81</b>	<b>11.88</b>
Transformed 95% Confidence Interval	(0.07, 2.89)	(4.03, 7.78)	(10.72, 12.95)	(9.33, 11.31)	(4.53, 9.09)	(10.83, 12.93)

**Notes:** Reference scores are mean of 1997 expert survey scores; reference texts are 1997 party manifestos.



**Figure 1. Movement from 1997 Positions on Economic and Social Policy, based on Wordscores Estimates. Bars indicate two standard errors on each scale.**