

## *Party Loyalty and Irish Voters: The EEC Referendum as a case study—a comment*

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IN their paper [1] Tom Garvin and Anthony Parker set out to describe the geographical variation of the voting pattern in the EEC Referendum, and to analyse the relationship between party loyalties and the Referendum vote. The variates used are the percentages in the 1972 Referendum, and the percentages of first preferences cast for the major parties in the same constituencies in the 1969 General Election. However, a certain amount of confusion has been created through using percentages of the total poll, rather than of the total *valid* poll. There are good reasons for preferring the latter measure. Although the proportion of spoiled votes is of the order of 1 per cent, it cannot be related to any known political commitment, and as only valid votes are used in determining a result, the use of the total poll introduces a source of error into the effective variables. Because of this latter effect, the correlation coefficients given in Table 1 of their text do not show up the really simple pattern which exists.

Instead of their Table 1, I would substitute the following, based on percentages derived from the total valid poll.

Total correlation coefficients:

between EEC "Yes" and 1969 FF	·460
between EEC "Yes" and 1969 FG	·787
between EEC "Yes" and 1969 "Labour and Others"	—·831

Multiple correlation coefficient:

between EEC "Yes" and 1969 FF, FG	·851
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All the above correlation coefficients are significant. The differences between the FF coefficient (·460), and those for FG and "Labour and Others" are also significant, but the difference between the FG coefficient and that for "Labour and Others" is not

significant. For the 1969 election the votes of "Labour and Others" have been combined for two reasons. The first is that the frequency distribution of the vote for "Others" is extremely non-Gaussian, as the vote was zero in 24 out of the 42 constituencies. This fact makes it inadvisable to extend correlation theory to a case where the results would be of doubtful significance. An examination of the 1969 voting transfer pattern for "Others" showed a marked preference to transfer to Labour, which indicates a further reason to use as the third variate "Labour and Others".

The correlations with the "No" EEC vote are of opposite sign, but equal in magnitude to the above. It is also apparent that an error occurs in the Garvin and Parker correlations for "Labour and Others"; and the deduction that the combined "Labour and Others" vote accounts for less than half of the variance accounted for by the FF and FG grouping is contrary to the theoretical result that they must account for an identical proportion.

The correlations measure the consistency of behaviour in 1972 *vis-à-vis* the 1969 voting pattern. A low correlation indicates a high proportion of *random* variations from one constituency to another. Correlation does not take account of a general trend or swing. The distinction is important.

The result of applying the Student-Fisher *t*-test to the difference in means for "Labour and Others" in 1969 and the 1972 "No" vote, i.e., 19.69 to 16.70 per cent, shows that the swing of about 3 per cent is significant at the 5 per cent level. We may, therefore, interpret the high correlation and the *t*-test as telling us that the swing from "Labour and Others" was more consistent throughout the country than the deviations by FF and FG voters from the patterns they established in 1969.

Another feature of the EEC vote was the low standard deviation compared with the standard deviations of the first preferences for each of the three groups in the 1969 election. The *F*-test obtained by comparing the lowest party variance in 1969 with the variance of the EEC vote is significant at the 1 per cent level.

In their conclusions Garvin and Parker state that "The larger the party, the more its cohesion has weakened on the EEC issue." However, the apparent relationship between party size and the EEC correlations does not reach the 5 per cent level of significance, and their hypothesis is not sustainable.

Reference has been made to the social background of FF, FG and Labour supporters. We do not have social or economic data for the constituencies, but it may be of interest to give the result of an attempt to obtain some indication on these lines.

It is known that the sex-ratio is highly correlated with income. Using the county population data given in Vol. I of the 1971 Census Report, and the figures for personal income by counties in 1969 (M. Ross [2]), the correlation between the proportion of males to females (M/F ratio) and personal income is  $-.868$ . The M/F ratio for the 42 constituencies has, therefore, been taken as a surrogate for constituency income. The total correlations between (1) the M/F ratio on the one hand, and (2) the Referendum "Yes", (3) FF 1969, (4) FG 1969, (5) "Labour and Others" 1969 on the other, are respectively,  $.563$ ,  $.474$ ,  $.458$ ,  $-.591$ . All these values are significant, but their absolute values do not differ significantly. The correlations indicate that in 1969 moderate proportions of both the FF and FG votes were associated with the lower income rural areas, and high "Labour and Others" votes with the higher income urban areas. Although the variances accounted for by the above correlations are sufficiently large to reach a high level of significance, they are not, however, large enough to be really useful for predictive purposes.

Introducing the M/F ratio into the regression of the EEC "Yes" on FF and FG raises

the multiple correlation coefficient to  $\cdot860$ , compared with  $\cdot851$  obtained earlier. The improvement is both non-significant and trivial. An examination of the partial correlation coefficients,  $r_{21\cdot34}$ ,  $r_{23\cdot14}$  and  $r_{24\cdot13}$  shows that there is little change from the total correlation coefficients for the last two which involve FF and FG as the active regressors. However, the partial correlation  $r_{21\cdot34}$  is  $\cdot169$ , compared with  $\cdot563$  for the corresponding total correlation coefficient with the M/F ratio. The value  $\cdot169$  fails to reach the 5 per cent level of significance.

The analysis may, therefore, be interpreted as indicating that no significant variation in the EEC vote can be attributed to differences in the regional distribution of income alone, but that about 72 per cent of its variance can be related to the voting patterns of the three groups in the 1969 General Election.

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#### REFERENCES

- [1] Garvin, Tom and Parker, Anthony, "Party Loyalty and Irish Voters: The EEC Referendum as a Case Study", *The Economic and Social Review*, Vol. 4, No. 1, Oct., 1972.
- [2] Ross, M., *Further Data on County Income in the Sixties*, ESRI Paper, No. 64, May, 1972.
- [3] *Census of Population of Ireland 1971*, Vol. I, July 1972, Prl. 2564, The Stationery Office, Dublin.