DID ULSTER CATHOLICS ALWAYS HAVE LARGER FAMILIES?*

by

CORMAC Ó GRÁDA

The marital fertility gap between Protestant majority and Catholic minority in Northern Ireland has been widely noted and analysed. The gap has been narrowing, though very slowly; in 1971 Catholic fertility was two-thirds higher than Protestant. Normally, analysis of such a difference might be left to professional journals, but in Northern Ireland it is sometimes seen as an element in the present civil strife. The gap has helped the Catholic share of the population to rise from 33.5 per cent in 1926 to about 38 per cent to-day, despite heavier emigration, provoking majority fears of 'revenge from the cradle'. Such fears have not generated any explicit policy response, though in one instance in 1956 a clumsy attempt was made by the Northern Ireland government to curb Catholic fertility by excluding Northern Ireland from the provisions of a revised British family allowance scheme.¹

The several explanations suggested for this gap may be grouped into the economic, the political, and the cultural. The first explanation links the higher fertility of Catholics with their greater poverty and rurality—these rather than religion per se account for the gap. It must be said that this explanation lacks conviction, since Catholics of all socio-economic backgrounds have, at least in recent years, registered higher fertility levels than their Protestant counterparts.² The political explanation—that Catholics are deliberately opting for large families to enhance their communal power—is difficult to test, though it does not receive much support from evidence south of the Border:³ Catholics in the Irish Republic face no 'oppressive' majority, yet their marital fertility to-day is close to that of northern Catholics, while southern Protestants have recorded considerably lower fertility than Catholics, despite their declining numbers.⁴ Coward has admittedly noted that average Catholic family size was greater in Northern Ireland than in the Republic in 1971, but the similarities between northern and southern correligionists are more striking than

* The research assistance of Mary Doherty and Michael Moore and the financial help of the Irish Committee for Social Science Research are gratefully acknowledged. My thanks too to David Fitzpatrick, Patrick Geary, and Harry McGeehan for their comments.
1 D. P. Barritt and C. F. Carter, The Northern Ireland Problem: A Study in Group Relations (London, 1962), pp. 109-10.
2 P. A. Compton, 'Fertility, Nationality, and Religion', in D. A. Coleman, ed. Demography of Immigrants and Minority Groups in the United Kingdom (London, 1982), pp. 194-212.
3 L. H. Day, 'Natality and Ethnocentrism: Some Relationships suggested by an Analysis of Catholic-Protestant Differentials', Population Studies, XXII (1968), 25-50; Paul Compton, 'The Demographic Background', in David Watt, ed. The Constitution of Northern Ireland: Problems and Prospects (London, 1982), pp. 74-92.
4 R. E. Kennedy, 'Minority Group Status and Fertility: The Irish', American Sociological Review, XXXVIII (1973), 85-96; Brendan M. Walsh, Some Irish Population Problems Reconsidered (Dublin, 1968); John Coward, 'Recent Characteristics of Roman Catholic Fertility in Northern and Southern Ireland', Population Studies, XXXIV (1980), 31-44.
the contrasts. We are left with the 'cultural' explanation—that Catholics have inherited or developed a different set of values as regards fertility and family size. Economists sometimes look upon cultural explanations with the disfavour that some Marxists reserve for references to 'superstructure'; if behavioural patterns cannot be explained in terms of prices and incomes, then the underlying model is being misspecified somewhere. Yet the cultural explanation is the most plausible on modern Irish evidence, and finds striking support from other cross-cultural and cross-religious studies, such as that of Lesthaege on nineteenth- and twentieth-century Belgium.6

Fertility trends in Ireland during the nineteenth century and earlier are almost a blank. Mokyr and Tucker have inferred high fertility on the eve of the Great Famine from the census of 1841,7 but analysis of subsequent trends has been dogged by bad registration data, census under-reporting, and ignorance of infant mortality levels. The parish reconstitution studies which could provide some answers have yet to be carried out. For the twentieth century, the situation is better. Both censal and civil registration data show that marital fertility in Northern Ireland has been dropping since the turn of the century. The most important aim of this study is to see whether the Catholic fertility advantage, though perceived as a 'problem' since the 1920s, goes back further than then. We shall also seek evidence for the economic explanation.

The Data

In order to establish the historic fertility levels of the main denominations in rural Ulster we have turned to the 1901 and 1911 Irish manuscript census returns. The fertility information included in the 1911 returns—each married woman was asked to detail how long she had been married, how many children she had borne, and how many were still alive—make them an irresistible source. However, as has been emphasized by Fitzpatrick in particular, that census contains one major trap for the unwary: the provisions of the Old Age Pensions Act of 1908 encouraged adults to exaggerate their ages, in the belief that telling the truth on their census forms might be used as evidence against them.8 In the absence of civil registration before 1864, applicants were often dependent on parish registers or personal references when applying; in many cases a word from the local priest that the applicant remembered the 'night of the big wind' (in 1819) was considered proof enough.9 As a result there was an increase of over one-half in the numbers reportedly aged 65 years or more between 1901 and 1911. The census commissioners' explanation of this increase is worthy of the best in Candide:

5 Gary S. Becker and George Stigler, ‘De Gustibus non est Disputandum’, American Economic Review, LXVII (1977), 76-91.
6 Ron Lesthaege, The Decline of Belgian Fertility (Princeton, 1977); also John Knodel, The Decline of Fertility in Germany (Princeton, 1974), pp. 88-147.
7 Joel Mokyr, Why Ireland Starved: A Quantitative and Analytical History of the Irish Economy 1800-1845 (London, 1984), ch. 2; G.L.S. Tucker, ‘Irish Fertility Ratios before the Famine’, Economic History Review, 2nd ser. XXXII (1970), 267-84.
8 David Fitzpatrick, ‘The Study of Irish Population 1841-1921’, Paper presented at the Conference of the Economic and Social History Society of Ireland, Cork 23-5 September, 1977.
9 Tomás Laighléis, Seanchas Thomáis Laighléis, Tomás de Bhaldraithe, ed. (Dublin, 1977), p. 61; A. Birrell, Things Past Redress (London, 1957), pp. 210-1.
The figures would tend to show that in previous censuses the old people were not aware of their age, and must have in a large number of cases underestimated it. The Old Age Pensions Act led a considerable number of them to ascertain their correct age. Use of the 1911 census to infer age at marriage or age-specific fertility must clearly lead to upward biases. On the other hand, the census commissioners were apparently right in the sense that in 1911 people of all ages were far less prone to return approximate or rounded ages, ending in 0 or 5, than in 1901. In other words, the 1911 data are less subject to age-heaping: the Whipple index—a common measure of this phenomenon—calculated for the women included in this study dropped from 215 in 1901 to 155 in 1911. Figure I, which is based on the ages given by 1,202 women in the censuses of 1901 and 1911, still reflects the change. The 'spikes' in 1901 are much longer, but the effects of age-exaggeration in 1911 are still evident.

The Test

The problem of age-misreporting in 1911 dictated the following strategy. Twenty-two district electoral divisions in Counties Londonderry and Tyrone were selected. These were clustered around three areas: immediately to the east and south of Derry City, in the Clogher valley, and in the rural hinterland around Magherafelt. In order to control for occupation, the areas chosen were largely rural, and only farming and farm-labourer families in them were considered. The electoral districts selected were all confessionally mixed: six of them were located in the hinterland of Derry city, eight in the Clogher Valley, and six more around Magherafelt. The age and fertility history of over 2,250 women were coded, and husbands' age, religion, whether farmer or labourer, and literacy of husband, were also noted. Next, where possible, the data were linked with the 1901 manuscript returns, and additional information on housing quality and the number of farm buildings coded. Finally, again where possible, census and valuation data were linked. These additional variables are used as proxies for wealth below.

A breakdown of the original 1911 data produced 1,500 farming families and 700 labouring ones. Cross-tabulations (see Table Ia) showed the Catholics to be at the bottom of the economic ladder by all available criteria (valuation, outbuildings, literacy, and housing quality). Interestingly enough (again Table Ia), by the same measures, Church of Ireland families were much closer to Catholic than to Presbyterian in socio-economic status. This confirms in a rural setting Hepburn's findings in urban east Ulster. Controlling family size for duration of marriage (Table Ib), it was found that both Catholic and Church of Ireland households contained more children than Presbyterian. Further cross-tabulations indicated that Presbyterians had in addition married over a year later

10 Census of Ireland, 1911: General Report (London, 1913), p. xxv.
11 H. S. Shryock and J. S. Siegel, Methods and Materials of Demography (Washington, 1973), I, pp. 205-7.
12 Maghera, Springhill, Castledawson, Magherafelt, Eglinton, Clady, Glendermot, Lough Enagh, Moneymore, Desertmartin, Salterstown, Faughanvale, Favor Royal, Tullyvar, Tanaheerin, Fivemiletown, Ballagh, Cecil, Cole, Brackagh, Slieve Gallion, Ballygawley, Clogher.
13 A. C. Hepburn, 'Catholics in Northern Ireland 1850-1921: The Urbanization of a Minority', in A. C. Hepburn, ed. Minorities in History (London, 1978), pp. 84-101; A. C. Hepburn and Brenda Collins, 'Industrial Society: The Structure of Belfast, 1901', in Peter Roebuck, ed. Plantation to Partition: Essays in Ulster History (Belfast 1981), pp. 210-28.
than the others. Note also that the difference in family size was insignificant for couples already married over twenty-five years in 1911. Farmers in the survey areas married three years later than labourers, and had smaller families.

| TABLE Ia | Wealth by Religion in 1911 |
|----------|--------------------------|
| Notation | Catholic | Presbyterian | Church of Ireland |
| SERVANT  | 0.132    | 0.361        | 0.175             |
| VTION    | 10.3     | 21.8         | 14.2              |
| HSEPTS   | 6.35     | 7.83         | 7.05              |
| OUTHSE   | 4.79     | 6.83         | 5.75              |
| LITERACY | 0.329    | 0.096        | 0.232             |

Note: Notations are explained in the appendix below.

| TABLE Ib | Children by Religion |
|----------|----------------------|
| Duration of Marriage | Catholic | Presbyterian | Church of Ireland |
| 0-10      | 2.19 (275) | 1.97 (262) | 2.15 (156) |
| 11-25     | 5.18 (297) | 4.48 (295) | 4.67 (184) |
| 26-40     | 6.35 (204) | 6.07 (220) | 6.58 (132) |
| Over 40   | 7.26 (91)  | 7.20 (83)  | 7.91 (53)  |

It was hoped at first that the 1901 data could be used to 'correct' the errors in 1911. If, for instance, women allegedly aged between 35 and 40 years in 1911 were shown to have 'aged' on average by twelve years between 1901 and 1911, then their correct age might be set at [age in 1911 less 12]. The correction would allow the use of the less age-heaped 1911 returns. But this, it turned out, would have been wrong, since closer analysis showed lying to be quite closely related to socio-economic status. The poor, presumably because the perceived incentive for them was greater, tended to exaggerate their ages more.

| TABLE II | Lying by Age in 1911 |
|----------|----------------------|
| Age      | Women | Men |
| 35 or less | 0.94 (48) | 1.59 (83) |
| 36-40    | 1.94 (127) | 1.97 (118) |
| 41-45    | 2.51 (134) | 1.80 (115) |
| 46-50    | 3.34 (237) | 2.31 (200) |
| 51-55    | 2.37 (147) | 1.91 (164) |
| 56-60    | 3.24 (202) | 2.95 (239) |
| 61-65    | 3.03 (117) | 2.65 (140) |
| 66-70    | 1.51 (96)  | 1.87 (155) |
| 71-75    | 0.00 (48)  | 0.64 (84)  |
| 76 +     | -1.67 (42) | -0.36 (77) |
A brief analysis of lying in 1911 may be relevant at this point. While we suspect that its extent was greater elsewhere, the patterns found in rural Londonderry and Tyrone were probably general. Comparing 1901 and 1911, the first finding is that age-exaggeration was present not just on the verge of seventy years, but over the whole range of adulthood. Summary results are presented in Table II. It will be noted that women tended to add more than men: to some extent this may have been due to an earlier reluctance to reveal their full age. Closer analysis (see Table A1) shows that Catholics lied more than Protestants and labourers more than farmers, and that lying was negatively correlated with housing quality, number of farm outbuildings, literacy, and valuation. As already stated, the Catholics were on average poorer: whether controlling for this, they still lied more, is a nice point. Our wealth variables are admittedly rather crude, yet they do reduce the coefficient on SECTAR (a dummy religion variable: see Appendix for key to variables used) in the regressions reported in Table A2. In regression equation A2.4, which includes all wealth variables, SECTAR's coefficient falls to 0.97 (that is, just under one year) or half its original size in A2.1.

Because both LIARM and SECTAR are correlated with all our wealth variables, correcting AGEM1911 for lying in order to explain fertility is pointless. However, the correction for lying is not a complete waste, since the new data can be used to provide some indication of the trend in fertility over time. This is so only if people in 1911 did not systematically lie about DURMAR as well. A breakdown of the data gives the following result: while marriages of 25-40 years duration had resulted in 6.3 children on average, marriages occurring before 1871 had produced 7.4 children.  

Our next task is to look at fertility and religion. The dependent variable throughout is BORNLIVE: experimentation with log transformations produced results not materially different. The independent variables are FERT and transformations thereof, SECTAR, and the different wealth variables. Table III reports our results.

All regressions indicate, as expected, a very high level of marital fertility. Those including FERTSQ and FERTCU work best, the sign on the fertility coefficients showing an eventual decline in fertility with age. Throughout, the coefficient on the SECTAR dummy is positive, ranging between 0.3 and 0.4, and for the most part it is statistically significant at conventional levels (remember that a one-tailed test is appropriate here). The result implies that early in the present century Catholic households' completed family size was larger on average by about one-third of a child, but no more than that. This finding is perhaps the most important result of the present exercise. The other variables fail to make a great impact on the SECTAR coefficient, though some of them affect it in plausible ways. Labourers had higher fertility than farmers: controlling for this reduces the coefficient somewhat, since the labouring population was disproportionately Catholic. The size and significance of the coefficient on SERVANT suggests that families with few children hired more labourers. Overall, the wealth and other variables, taken together, added to the size and significance of the SECTAR coefficient. While this seems plausible in the context, it is the opposite to what is sometimes claimed to-day about northern Catholics. Popular belief has it that their higher fertility merely reflects a culture of poverty. Yet it must also be noted that none of the wealth variables increased the explanatory power of the regressions by much: the 'economic explanation' of Catholic fertility is only of subordinate importance.

14 Compare E. A. Wrigley and R. S. Schofield, The Population History of England 1537-1871: A Reconstruction (London, 1982), pp. 108-9.

15 See Hepburn, 'Catholics', op. cit.
| Dependent Variable | Constant | FERT | SECTAR | DI | HSEPTS | OUTHSE | VTION | LITERACY | SERVANT | R²   | F     | (d.f.) |
|--------------------|----------|------|--------|----|--------|--------|-------|----------|---------|------|-------|--------|
| 1 BORNLINE         | 0.861    | 0.229| -      | -  | -      | -      | -     | -        | -       | 0.254| 408.9 | (1,1196) |
|                    | (0.011)  |      |        |    |        |        |       |          |         |      |       |        |
| 2 BORNLINE         | 1.799    | 0.288| -      | -1.011| -      | -      | -     | 0.260    | 211.5   | 0.256| 206.5 | (2,1195) |
|                    | (0.011)  |      |        | (0.308)|        |        |       |          |         |      |       |        |
| 3 BORNLINE         | 0.748    | 0.228| 0.351  | -  | -      | -      | -     | 0.256    | 206.5   | 0.255| 137.9 | (3,1194) |
|                    | (0.011)  | (0.180)|        |    |        |        |       |          |         |      |       |        |
| 4 BORNLINE         | 0.762    | 0.229| 0.372  | -  | -      | -      | -     | -0.193   | -       | 0.255| 137.9 | (3,1194) |
|                    | (0.011)  | (0.186)|        |    |        |        |       |          |         |      |       |        |
| 5 BORNLINE         | 0.900    | 0.228| -      | -0.006| -      | -      | -     | -        | -       | 0.254| 204.5 | (2,1192) |
|                    | (0.011)  |      |        | (0.022)|        |        |       |          |         |      |       |        |
| 6 BORNLINE         | 1.864    | 0.228| 0.363  | -1.080| -      | -      | -     | -0.404   | -0.216  | 0.263| 86.5  | (5,1192) |
|                    | (0.011)  | (0.187)| (0.516)|    |        |        |       |          |         |      |       |        |
| 7 BORNLINE         | 1.677    | 0.315| 0.315  | -0.996| -      | -      | -     | -        | -       | 0.262| 142.3 | (3,1194) |
|                    | (0.011)  | (0.179)| (0.308)|    |        |        |       |          |         |      |       |        |
| 8 BORNLINE         | 1.568    | 0.229| 0.372  | -1.355| 0.031  | 0.043  | 0.002 | -0.194   | -0.402  | 0.257| 45.6  | (8,1023) |
|                    | (0.012)  | (0.207)| (0.498)| (0.029)| (0.037)| (0.006)|       |          |         |      |       |        |
| 9 BORNLINE         | 1.560    | 0.229| 0.337  | -1.306| 0.031  | 0.045  | 0.002 | -        | -       | 0.258| 52.1  | (7,1024) |
|                    | (0.012)  | (0.202)| (0.494)| (0.029)| (0.037)| (0.006)|       |          |         |      |       |        |
| Dependent Variable | Constant | FERT | FERTSQ | FERTCU | SECTAR | DI | LITERACY | HSEPTS | OUTHSE | SERVANT | VTION | R²  | F     | (d.f.) |
|-------------------|----------|------|--------|--------|--------|----|----------|--------|--------|---------|-------|-----|-------|--------|
| 10 BORN LIVE      | 1.596    | -0.00192 | 0.01554 | -0.000284 | - | - | - | - | - | - | - | .260 | 141.1 | (5,1194) |
| 11 BORN LIVE      | 1.639    | 0.00517 | 0.01552 | -0.000282 | - | - | - | 0.095 | - | - | - | - | .260 | 105.9 | (4,1190) |
| 12 BORN LIVE      | 1.764    | -0.0106  | 0.01579 | -0.000286 | - | - | - | -0.113 | 0.013 | - | - | - | .260 | 84.7  | (5,1189) |
| 13 BORN LIVE      | 1.655    | 0.0150   | 0.01594 | -0.000287 | 0.349 | - | - | -0.213 | -0.008 | - | - | - | .261 | 71.3  | (6,1188) |
| 14 BORN LIVE      | 2.742    | -0.022   | 0.0167  | -0.000304 | 0.571 | -1.159 | - | -0.406 | - | - | -0.199 | - | .270 | 64.2  | (7,1190) |
| 15 BORN LIVE      | 1.554    | -0.0106  | 0.01565 | -0.000287 | 0.376 | - | - | -0.187 | - | - | - | - | .261 | 85.7  | (5,1192) |
| 16 BORN LIVE      | 1.500    | -0.0057  | 0.01565 | -0.000286 | 0.536 | - | - | - | - | - | - | - | .261 | 107.0 | (4,1193) |
| 17 BORN LIVE      | 2.508    | -0.0161  | 0.0165  | -0.000305 | 0.318 | -1.074 | - | - | - | - | - | - | .268 | 88.8  | (5,1192) |
| 18 BORN LIVE      | 2.811    | -0.0918  | 0.0219  | -0.000405 | 0.356 | -1.450 | -0.186 | 0.023 | 0.040 | -0.366 | 0.002 | .268 | 38.7  | (10,1021) |
Conclusion

The large fertility gap so widely noted to-day was absent in the rural areas surveyed in this study. In these areas at least, all confessional groupings registered high marital fertility, and the confessional gap hardly existed at all for those couples who had married before the mid-1880s. Yet our analysis clearly indicates the beginnings of such a contrast. Finding out just when and why the small gap grew is an interesting historical problem, awaiting inter-disciplinary research.

University College, Dublin

APPENDIX

Variables used in the Regressions

| Variable                | Description                                    |
|-------------------------|------------------------------------------------|
| AGEM1901, AGEM1911      | mother's age in 1901 and 1911                  |
| AGEF1901, AGEF1911      | father's age in 1901 and 1911                  |
| LIARM, LIARF            | age difference                                      |
| DURMAR                  | duration of marriage, 1911                      |
| BORNALIVE               | children born alive                              |
| SERVANT                 | servants living in                              |
| LITERACY                | dummy variable—0 if father literate, 1 if illiterate |
| OUTHSE                  | number of farm outhouses, 1901                   |
| HSEPTS                  | number of housepoints, as defined in 1901 census |
| VTION                   | house and land valuation, 1911 (£)              |
| SECTAR                  | dummy variable—0 for Protestant, 1 for Catholic  |
| REALAGEM, REALAGEF      | 1901 age plus 10 for mothers and fathers        |
| FERT                    | equals DURMAR if REALAGEM less than 49.         |
|                        | Otherwise [49 — (REALAGEM—DURMAR)]             |
| DI                      | dummy variable, 1 for farmer, 0 for labourer     |
| FERTSQ, FERTCU          | FERT², FERT³                                    |

TABLE A1

LIARM, LIARF, Religion and Wealth

| Religion   | LIARM | LIARF | LITERACY | LIARM | LIARF |
|------------|-------|-------|----------|-------|-------|
| Catholics  | 3.55  | 2.94  | LITERACY | 0     | 2.07  |
|            | 1.69  | 1.45  |          | 1     | 3.51  |
| Protestants| 3.46  | 2.30  | SERVANT  | 2.55  | 2.13  |
|            | 2.14  | 1.96  | One      | 1.76  | 1.34  |
|            | 1.07  | 1.41  | More than 1 | 0.37 | 1.19  |

| HSEPTS     | LIARM | LIARF |                   |
|------------|-------|-------|--------------------|
| 1-5        | 3.46  | 2.30  | SERVANT            |
| 6-10       | 2.14  | 1.96  | None               |
| Over 10    | 1.07  | 1.41  | One                |
|            |       |       | More than 1        |

| VTION       | LIARM | LIARF |                   |
|-------------|-------|-------|--------------------|
| £1-£10      | 2.94  | 2.47  |                    |
| £11-£30     | 2.17  | 1.69  |                    |
| £31-£100    | 0.64  | 1.45  |                    |
| Dependent Variable | Constant | SECTAR | LITERACY | VTION | HSEPTS | DI | OUTHSE | F  | (d.f.) |
|--------------------|----------|--------|----------|--------|--------|----|--------|----|--------|
| 1 LIARM            | 1.661    | 1.847  | -        | -      | -      | -  | -      | 33.1| (1,1196)|
|                    |          |        |          |        |        |    |        |     |        |
| 2 LIARM            | 1.860    | 1.531  | 0.842    | -0.022 | -      | -  | -      | 15.2| (3,1194)|
|                    |          |        | (0.332)  | (0.392)| (0.009)|    |        |     |        |
| 3 LIARM            | 2.438    | 1.673  | -        | -      | -0.156 | -  | -      | 29.6| (2,1195)|
|                    |          |        | (0.320)  |        |        |    |        |     |        |
| 4 LIARM            | 2.067    | 0.969  | 0.735    | -0.015 | -0.095 | 1.160| -0.068 | 7.1 | (6,977) |
|                    |          |        | (0.333)  | (0.398)| (0.010)| (0.82)| (0.548)|     |        |
| 5 LIARF            | 1.414    | 1.496  | -        | -      | -      | -  | -      | 31.0| (1,1373)|
|                    |          |        | (0.269)  |        |        |    |        |     |        |
| 6 LIARF            | 1.387    | 1.316  | 0.758    | -0.006 | -      | -  | -      | 12.6| (3,1371)|
|                    |          |        | (0.279)  | (0.329)| (0.008)|    |        |     |        |
| 7 LIARF            | 1.526    | 1.471  | -        | -      | -0.022 | -  | -      | 15.9| (2,1372)|
|                    |          |        | (0.270)  |        |        |    |        |     |        |
| 8 LIARF            | 1.925    | 1.085  | 0.589    | -0.009 | -0.036 | 0.225| 0.016  | 4.4 | (6,977) |
|                    |          |        | (0.305)  | (0.365)| (0.009)| (0.075)| (0.501)|     |        |
FIGURE 1
Ages as reported by female sample in 1901 and 1911.

1901

1911