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The Demand for Fee-Paying Secondary Schools in the Republic of Ireland

Abstract

Ireland's fee-paying schools consistently rank highly in Ireland's secondary school league tables. Evidence also notes that the alumni of fee-paying schools represent a large proportion of those in leadership positions in business, politics and the legal professions. This paper examines the factors that affect the decision of Irish households to enrol their children in fee-paying secondary schools in Ireland. The paper uses Irish Household Budget Survey data that cover three waves from the period 2004 to 2016.

We examine the head of household's education, occupation, income, marital status, the location of the household and temporal factors on the school choice decision. The main results indicate that fee-paying students are more likely to come from higher income, better educated and Dublin located households. This research highlights the significant driver that affluence may have in determining secondary school enrolment in Ireland. This self-selected affluent group effect may explain the performance disparities between fee-paying and non-fee-paying schools. The results enlighten any discussion around whether or not the Government should consider a transition to a fee-paying market or eliminate fee-paying schools altogether.

Keywords: education, demand, household, fees

1. Introduction

This paper focuses on the demand for fee-paying secondary schools in Ireland. Under law, in Ireland, parents are obliged to ensure their children attend school until the age of 16 or until the student has completed three years of second-level education (Department of Education and Science, 2014). The second-level school system in Ireland consists of non-fee-paying secondary schools, including vocational schools and community or comprehensive schools, as well as fee-paying secondary schools. The majority of Irish children go to non-fee-paying secondary schools, which are often run by religious orders. The term fee-paying is used to

describe all schools that charge fees, whether they are privately owned by a profit maximising firm or run voluntarily by a religious organisation. It is argued that the removal of university fees at undergraduate level in the late 1990s assisted in increasing disposable income for expenditure on fee-paying schooling and fee-paying tuition (Smyth, 2009). The proportion of secondary students in these schools rose from 6% to 8% in the country and from 15% to 19% in Dublin between 1999 and 2009 (Smyth, 2009). Recent years have seen this trend reverse. From 2004 to 2015, the percentage of students in fee-paying schools fell from 7.8% to 6.6% (Department of Education & Skills, 2018). [1]

Fee-paying schools are very valuable to the economy as the State saves money when parents opt to finance their children's education (JMB, 2015). The cost to the State, on a yearly basis, for a pupil educated in a fee-paying secondary school is €3,710 compared to €8,900 in non-fee-paying schools (JMB, 2015). When this is multiplied by the approximate figure of 25,000 students, the state saves roughly €133 million per annum (JMB, 2015). The importance of fee-paying schools to the economy should not be underestimated. Without such schools, students will migrate to the free scheme and increase the State's costs.

However, it is difficult to estimate the added value of fee-paying education to a student. One measure which parents may use is The Sunday Times' publication of an annual 'Schools Guide' which lists the top 400 secondary schools in Ireland based on the average percentage of pupils proceeding to fill places at the main Irish universities, teacher training colleges, Royal College of Surgeons and NCAD (Schooldays.ie, 2018). The country's fee-paying schools consistently dominate the top places in these secondary school rankings (Kennedy and Power, 2010). Schools often also produce their average CAO results in comparison to the national average. The Association of Secondary Teachers is opposed to such rating systems as they feel

[1] Figures are exclusive of students in grind schools, which do not report to the Department of Education & Skills.

the information is selective and ignores that the core objective of education is to help every student develop as an individual (ASTI, 2016). Limitations of such findings lie in their failure to assess student backgrounds and the ability of models to sufficiently control for differences in achievement between various groups of students (Goldstein, 2013). However, the distribution of these league tables has been rationalised for alternative reasons, including their ability to facilitate parental choice of school, to promote school accountability and to enable schools to use performance indicators for benchmarking purposes (Gilleece, 2014).

Borooah et al. (2010) acknowledge the role of league tables and use empirical evidence to find that large Dublin based fee-paying schools have a higher percentage of school leavers proceeding to higher education. This lends support to the argument that fee-paying schools enable certain types of households a position of privilege or advantage relative to others. More interesting is the reaction of fee-paying schools to their circumstance. Borooah at al. (2010) isolate the influence of school circumstances (socio-economic environment at the county level) on school performance. They find that if fee-paying schools are to respond to their socio-economic environment in the way in which public schools do, the performance of fee-paying schools would be reduced. On the other hand, if non-fee-paying schools are allowed to respond to their environment, according to fee-paying schools' coefficient responses, their results would be enhanced (Borooah et al., 2010). These findings add rationale to parents' perception that fee-paying schools often deliver better student performances, as measured by progression to higher level institutions. This provides further justification for parents to pay school fees for a perceived superior product offering. A limitation of the Borooch et al. (2010) study is that neither the ability of students or the non-random self-selection by households into fee-paying schools is considered. Pfefferman and Landsman (2011) find that less able pupils tend to enrol in public schools in Ireland. Their lower scores in reading, mathematics and science are,

therefore, not necessarily an indication of poor quality of non-fee-paying schools. However, no analysis of households' socio-economic traits is provided.

School choice has been evident in Ireland since the foundation of the State, with the constitution protecting parents' rights with regards to the education of their children. Under the Irish Constitution (Article 42) parents are described as the 'primary and natural educators' of their children and they are free to send their child to any school they wish (Lynch and Moran, 2006). School choice is a topical issue with social class differences being furthered through the choice of traditional single-sex religious schools, community schools and vocational schools, or high achieving fee-paying schools (Cahill and Hall, 2014). Lynch and Moran (2006) argue that the State's hesitation to endorse a privatised market for secondary schools has allowed parents to use their wealth in efforts to protect the futures of their children, creating a market in the fee-paying sector. In 2018, Nord Anglia International School opened in Dublin, with fees of €25,200 per annum. By offering the International Baccalaureate, instead of the traditional Leaving Certificate, the opening of this school may signal the start of new product offerings to parents in Ireland.

To date, in Ireland, there is little empirical evidence on what type of household send their children to fee-paying schools. As highlighted by Gilleece (2013), detailed analysis of household and socio-economic traits is important if schools' actual performance is to be recognised as different from their expected performance. This paper will address this gap in the literature by examining household data from three Irish Household Budget Surveys covering the period 2004 to 2016. The paper proceeds with a literature review next. This is then followed by a data and methodology section. A results section and conclusions section finish the paper.

2. Literature Review

2.1 *Human Capital Investment and Consumption*

Becker advocates that education and training are the most important investments in human capital (Becker, 1964). Becker and Chiswick (1969) highlight that each individual is assumed to maximise their economic welfare by investing in education. Becker (1964) assumes that people are rational in calculating how much to invest in their own human capital and note that some individuals may earn more than others simply because they invest more in themselves. Becker and Chiswick (1966) and Mincer (1974) found, from a study of 42 countries, that high income groups engage more in education than middle- and lower-income groups respectively, although the returns to income are diminishing.

The classic theory of human capital does not consider that consumption demand may also influence educational choices (Romano and Tampieri, 2015). Lazear (1977) notes that education is demanded for investment purposes, but education is 'a bad' in terms of utility creation. For this reason, 97% of the studied sample cease education before the wealth-maximising level is achieved (Lazear, 1977). The residual is considered to be the investment component (Lazear, 1977). By subsidising education, a government encourages individuals to attain more education and move to the wealth-maximising level. Lazear (1977) also notes that the utility level of the recipients is lower when the transfer is in education rather than in bonds as it is non-saleable.

On the other hand, considerable evidence supports the hypothesis that consumption incentives can have a positive effect on demand for education. For example, some disciplinary areas lack an ability to increase future incomes, yet students continue to study these fields (Romano and Tampieri, 2015). Therefore, education is seen to generate two outputs: a lifetime stream of net income and non-monetary benefits (Schaafsma, 1976). Although school

participation can be seen as a screening device used by employers (Spence, 1972) or a productive asset, it remains rational for an individual to demand schooling as long as the present value of additional education is equal to its marginal cost. In addition, parents can be assumed to attain utility from the consumption of goods (C) and from the human capital of their children (H) (Alderman et al, 2001). The utility function is U=U[C, H(A)] which notes the child's human capital depends on the attributes of the school he or she attends (A). Therefore, parents must invest in human capital to an extent that maximises their own utility (Alderman et al., 2001).

Household characteristics can influence whether education is believed to be a function of consumption or investment. At third level, the choice of course and a student's household income are strongly linked. Baird (1967) conclude that, for any given ability, students from low-income households select courses from which they believe they will generate a high financial return. Baird (1967) finds that students from higher income homes are instead more concerned with enhancing their intellect. These findings are confirmed by Dealney (1998), who concludes that lower income students' demand for education is more motivated by education as a means of investment.

As second-level schooling is compulsory to Junior Certificate level, or until the pupil has reached the age of 16 years, school choice is based on parents' decision making rather than that of the participant. This suggests that utility maximisation for a student is not a consideration in this context. Secondary education is a 'general' rather than a 'specific' investment and it is widely noted as providing positive externalities such as reduced anti-social behaviour and increased employment. However, the returns continue to be directly collected by the person receiving the education (Becker, 1962). The ability of this form of human capital investment to directly enhance their children's personal earnings provides a great incentive for parents to invest in their children's futures.

2.2 *Household Characteristics*

Coleman (1966) was one of the first scholars to investigate the effect of inputs on educational performance. Todd and Wolpin (2003) further this area by noting the importance of the role of the family unit while studying education. They incorporate this element into the education production function by including family resources, household location and the decision between public and private schools as inputs. Koch et al. (2015) also agree that the family unit is important to the study of children's education, as influenced by the permanent economic and mental resources it provides.

Income and Temporal Factors

It can be argued that education is a normal consumption good, with an increase in wealth producing a positive increase in the amount of education purchased (Lazear, 1977). For high income earners, investment in elite education is highly rational. They are generating positive net earnings on human capital investment, defined as the difference between actual earnings and direct school costs (Becker, 1962). Lynch and Moran (2006) argue that low income families in Ireland are disadvantaged because they cannot afford to prepare their children for entry exams to selective schools, or to live in the neighbourhoods of these schools' catchment areas (Lynch and Moran, 2006). Bowles (1972) finds that 52% of the variation in levels of schooling can be attributed to differing family backgrounds. However, due to differing perceptions on fee-paying versus public education, the decision to invest in education is not a direct function of income (Bowles, 1972).

The economic climate can greatly affect household income and demand for education. During the recent Irish recession, the average household income fell by 16% between 2008 and 2011 for families with 13-year-old children. Unemployment increased from 5.6% to 13.8% among fathers, and from 5.6% to 6.5% among mothers (ESRI and TCD, 2012a). 36% of one-

parent families and 47% of larger families expressed great difficulty in making ends meet. This is in comparison to approximately 20% of two parent households (ESRI and TCD, 2012a). The recession also had differing effects on households based on levels of parental education. The difficulty in affording basic items was mentioned by 41% of those with the lowest level of education, in comparison to 31% of all households. More than double the number of families in the least educated group experienced these particular issues compared to those with a degree (ESRI and TCD, 2012a).

The balance between substitution and income effects influences the short-term impact of a recession on demand for education (Ferreira and Schady, 2008). This has been studied internationally with varied findings. The 1980s economic crisis of Peru saw an increase in school enrolments as the opportunity cost of schooling declined, despite household incomes being nearly halved (World Bank, 2016). In Korea, evidence shows a reduction in educational expenditure during a recessionary period which varied according to the socio-economic status of a family. The wealthiest 20 percent increased their education expenditure, while the rest of the population reduced this form of expenditure (UNESCO, 2001). A recession, therefore, can exacerbate social disparities. The World Bank (2016) highlights that a fall in households' purchasing power entices students, that otherwise would enrol in fee paying schools, to enrol in public schools instead. As this occurs, private schools find it increasingly difficult to raise funds through fees. As a result, fee-paying schools are likely to face difficulties in sustaining or improving the quality of their services, ultimately resulting in their closure.

Employment Status

It is noted that the impressive achievements of elite schools may be due to "good people coming into the system in the first place, the cream of the cream, the crème de la crème" (Kennedy and Power, 2010). This suggests that the greatest advantage is not having attended a

fee-paying school, but instead it is the result of "coming from a middle-class family" (Kennedy and Power, 2010). Byrne and Smyth's (2010) study supports this finding by highlighting that working-class parents have a greater tendency to perceive the selection of a post-primary school as a "natural follow-on," determined by their location and the primary school their child attended. ESRI and TCD (2012b) also find that attitudes to school vary by social background. 13-year-olds with parents from professional or managerial backgrounds, who are highly educated, are more positive about school than others. For these reasons, many professional and middle-class parents enrol their children in secondary schools which they perceive to offer a higher standard of education compared to free schools (Lyons, 2003).

Education Attainment

Jung and Lee's (2010) findings are similar to those of the ESRI and TCD (2012b). They find that the higher the level of parents' education, the greater the likelihood that their children are to participate in private education in Korea. Burgess et al. (2018) find that parents, in the UK, who do not express a preference for a particular school for their children are disproportionately more likely to be from single parent households with low levels of education. This supports Kornrich and Furstenberg's (2012) conclusion that the attained education of a parent has a positive effect on their total financial investment in their children. This expenditure assists in placing children in higher-quality child care and education that are more likely to build human and cultural capital. Returning to Irish evidence, Lyons et al. (2003) find that knowledgeable parents in Ireland demonstrate both a strong tendency to select a school other than their nearest one and an ability to capitalise on the possibilities offered by choice. Knowledgeable parents are able to gain inside information on the schools as they possess the economic and cultural capital required to enhance their decision-making.

Family Structure

At high school level in the US, Buddin et al. (1998) find students with a single parent to be 3.6 to 4.8 percent more likely to be enrolled in fee-paying schools, compared to their counterparts from two-parent households, controlling for household income. Burgess et al. (2018) find the opposite to be the case. In addition to being of predominantly single parent households; parents who express a strong preference for a school type are more likely to do so for their eldest child compared to subsequent children (Burgess et al., 2018). This is based on the thinking that school choice becomes effectively a formality for younger siblings. Woo and Hodges (2015) find that parents become less concerned about younger children's education because they have already spent considerable time, money, and energy on choices in relation to the older children. The rationale behind this finding is that parents will opt to make smaller investments in education per child, as family size increases. This, therefore, is likely to result in larger families being less inclined to choose fee-paying schools (Buddin et. al, 1998).

Location

Hannan et al. (1996) study the actions of Irish parents they describe as being of middle class. Due to their financial capabilities, middle class students are mobile and, for this reason, only one half of secondary level students enrol in their nearest secondary school (Hannan et al., 1996). These households are able to exercise greater choice and they are more likely to travel further distances to attend schools with classmates who are of a similarly affluent background. Smyth (2009) studies the consumption of private tuition outside the schooling system in Ireland which presents similarities to fee-pay schooling as it bears a financial cost and is demanded to advance the participant. However, unlike schools, this form of paid tuition is not location specific as one-to-one grinds are widely available. Smyth (2009) finds that, despite private tuition being most popular among fee-paying school attendees, households in

urban areas are no more likely to engage in private tuition than those in rural areas. Therefore, no region is disadvantaged when the source of human capital investment is widely available.

Religion

Current Irish equality legislation provides schools with the ability to admit incoming students based on their religion (Mawhinney, 2012). This is provided that such actions are vital in maintaining the school's ethos. This adds to the discussion on school choice in Ireland and the advantages religion can provide to some. On the other hand, research on schools in middle-class areas in the south of Dublin city finds that the majority of pupils enrolled in Protestant secondary fee-paying schools are not affiliated to this denomination. However, this is not applicable to all schools because, given the size and spread of the Catholic population, Catholic denominational schools tend to not need to admit students from other religions (Lynch and Moran, 2003; Woulfe, 2002).

These findings lend to the argument that religious-run schools can discriminate in their admission policies, but this is not always the case. Mawhinney (2012) find that, at primary school level, the role of religion in school admission can also be location dependent. Religious affiliation is more important to families in urban areas, where competition for school places is high. These parents are particularly conscious that they could be legally discriminated against, with regards to school admission, if they do not belong to the appropriate religion (Mawhinney, 2012). Again, it is difficult to determine to what extent this occurs, in addition to the fact parents may eliminate such issues by baptising their children into the denomination of their desired school choice. The Education (Admission to Schools) Act 2018 is likely to reduce religious bias but may further increase the role income has on generating social advantages, with excess demand likely to increase the market price.

It is clear from this review that there are many household characteristics that affect a household's decision to demand a fee-paying education. In the next section, we outline the data and methodology used in this paper to examine this question in the Irish case.

3. Data and Methodology

The data used for the analysis in this paper are from the Republic of Ireland's Household Budget Survey (HBS) for 2004/2005, 2009/10 and 2015/16.[2] The main purpose of the survey 'is to determine in detail the pattern of household expenditure in order to update the weighting basis of the Consumer Price Index' (CSO, 2012, p. 7)[3]. In addition to household expenditures, the HBS also gives detailed information on a wide range of household and physical housing characteristics. One disadvantage of this survey is that it is filled out by a household representative. The accuracy of the findings is therefore dependent on participants fully understanding the questions asked and their ability to accurately report their household's responses.

In the 2015-2016 survey, 6,839 households participated in the HBS. This represents a response rate of 40% (CSO.ie, 2018b). A limitation of this response rate is that the sample includes only 700 households which contain an individual under the age of 21 years enrolled in second level education, 36 of which have one or more persons enrolled in fee-paying secondary schools in 2015/2016. The sample of fee-paying school pupils includes those at boarding schools as they also require a fee payment. Although these figures are representative of the population,[4] two previous HBS datasets (2004/2005 and 2009/2010) are also used in this study to increase the sample size to 2,809 households with school age children. The larger

[2] Accessed via the Irish Social Science Data Archive
[3] Households are requested to maintain a detailed diary of household expenditure over a two-week period.
[4] Private households are selected randomly to represent the population.

sample size improves the consistency of our findings and the use of pooled data creates a greater picture of the demand for fee-paying schools over time by enabling the inclusion of time indicators (2004/05). This period covers the pre-crisis and the recession of the late noughties and subsequently Ireland's more recent period of economic recovery.[5]

[5] 2009/2010 and 2015/2016 monetary figures are adjusted to for inflation in these periods, using 2004/5 as the base year. The adjustments are made using the Consumer Price Index (Cso.ie, 2018a) at the mid-point of each period.

Table 1. Variable Descriptions.

Variable	
Dependent Variable	
Second level education	= 1 if a household consists of a person under 21 years enrolled in fee paying second level education, 0 if the household consists of a person under 21 years enrolled in non-fee paying second level education
Independent Variables	
Employment	
Manual Work	= 1 if the HOH classifies themselves as a manual worker, 0 otherwise
Non-Manual Work	= 1 if the HOH classifies themselves as a non-manual worker, 0 otherwise
Not Economically Active	= 1 if the HOH classifies themselves as not economically active, 0 otherwise
Self-Employed	= 1 if the HOH classifies themselves as self-employed, 0 otherwise
Education	
Primary or No Education	= 1 if the highest education attainment of the HOH is primary level, 0 otherwise
Second Level	= 1 if the highest education attainment of the HOH is second level, 0 otherwise
Still Receiving Education	= 1 if the HOH is still receiving education, 0 otherwise
Third Level	= 1 if the highest education attainment of the HOH is third level, 0 otherwise
Marital Status	
Single	= 1 if the HOH is either single or widowed, 0 otherwise
Separated/Divorced	= 1 if the HOH is either separated or divorced, 0 otherwise
Married	= 1 if the HOH is married, 0 otherwise
Urban/Rural Location	
Urban	= 1 is the HOH has classified themselves as residing in an urban location, 0 otherwise
Region	
Border, Midland, West	= 1 if a HOH is a resident of the Border, Midland or West regions, 0 otherwise
South & East (ex. Dublin)	= 1 if a HOH is a resident of the South West, South East, Mid-West or Mid East, 0 otherwise
Dublin	= 1 if a HOH is a resident of Dublin, 0 otherwise
No. of Children	= The number of children the HOH has, regardless of their residency.
Gross Household Income (log)	Total direct household income plus total state transfers calculated on a weekly basis.
Time Dummy Variables	
Period 1 (2004/05)	= 1 for the years 2004/2005, 0 otherwise
Period 2 (2009/10)	= 1 for the years 2009/2010, 0 otherwise
Period 3 (2015/16)	= 1 for the years 2015/2016, 0 otherwise

Source: ISSDA - HBS 2004-2016

Table 2. Descriptive Statistics of Households

Variable	Proportion	Std. Dev.
Dependent Variable - School Choice		
Fee Paying Schools	0.074	0.262
Independent Variable - HOH's Characteristics		
Employment		
Manual Work	0.250	0.433
Non-Manual Work	0.416	0.493
Self-Employed	0.163	0.369
Not Economically Active	0.171	0.377
Education		
Primary or No Education	0.093	0.290
Second Level	0.492	0.500
Third Level	0.374	0.484
Still Receiving Education	0.041	0.198
Marital Status		
Single	0.106	0.308
Married	0.780	0.414
Separated/Divorced	0.114	0.318
Urban/Rural		
Urban	0.628	0.484
Rural	0.372	0.484
Region		
Border, Midland, West	0.290	0.454
South & East (ex. Dublin)	0.436	0.500
Dublin	0.274	0.446
Continuous Variables	Mean	Std. Dev.
No. of Children	2.659	0.654
Gross Income per week (Euros)	1,263.11	1.230

Source: ISSDA - HBS 2004 - 2016

The list and definitions of the variables used are presented in Table 1. Information on the head of household (HOH) is employed as a proxy for the household's general characteristics, following similar approaches used by others to model demand using the Irish household budget survey (Carroll et al., 2005; Crowley et al., 2012). The choice of variables employed in the analysis are informed by the theoretical discussion in the previous section. The independent variables include income, employment, education, marital status and location indicators. Seven per cent of the households demand a fee-paying education. 37 per cent of HOHs have a third level qualification. 78 per cent of the HOHs are married. 63 per cent of households are located in an urban area and 27 per cent are located in Dublin. Gross income

per week averaged €1,263 over the period sampled and the number of children per household was 2.7.

As outlined in the theoretical section, religion is also a factor identified in influencing school choice. However, religion is not controlled for in this study due to data limitations. The Household Budget Survey (HBS) does not collect information on household members' religious denomination and there is no accurate measure of households who choose their children's denomination for school choice reasons.

A Probit model is used to examine what type of households send their children to fee-paying schools, where the dependent variable in this model is binary and equal to one if the household has a child attending a fee charging secondary school. The dependent variable is equal to zero if the household has a school age child who does not attend a fee-paying school. The probability of a positive outcome is determined by the standard normal cumulative distribution function (StataCorp, 2015). Our probit model is represented by:

$$F_i^* = \beta X_i + u_i \qquad (1)$$

The Probit model is a latent model where, $F = 1 \ if \ F_i^* > 0$ and 0 otherwise. X_i represents the independent variables (as outlined in Table 1) and u_i represents the error term of our model. The results of our model are presented in the next section.

4. Empirical Results

The results of equation (1) are presented in Table 3. Since the data consists of pooled cross-sections from the HBS, the results cannot be interpreted as causal effects, but rather associated effects. Unsurprisingly, income is significantly associated with the demand for fee-paying

education. This finding supports Lynch and Moran (2006) who argue that parents in Ireland may use their wealth to provide their children with an advantage through enrolment in fee-paying schools.

Table 3. Probit model, reporting marginal effects

Variable	*Effect*
Head of Household's Characteristics	
Employment	
Manual Work	-0.052**
	(0.008)
Non-Manual Work	-0.045**
	(0.010)
Not Economically Active	-0.005
	(0.012)
Self-Employed (reference category)	
Education	
Primary or No Education	-0.047**
	(0.006)
Second Level	-0.054**
	(0.009)
Still Receiving Education	-0.025
	(0.011)
Third Level (reference category)	
Marital Status	
Single	-0.011
	(0.013)
Separated/Divorced	-0.012
	(0.012)
Married (reference category)	
Urban/Rural	
Urban	0.095
	(0.088)
Rural (reference category)	
Region	
Border, Midland, West	-0.033**
	(0.009)
South & East (ex. Dublin)	-0.038**
	(0.009)
Dublin (reference category)	
No. of Children	-0.004
	(0.003)
Gross Household Income (log)	0.078**
	(0.019)
Time Dummy Variables	
Period 1 (2004/05)	0.977**
	(0.043)
Period 2 (2009/10)	0.710**
	(0.345)
Period 3 (2015/16) (reference category)	

Table 3. Probit model, reporting marginal effects (continued)

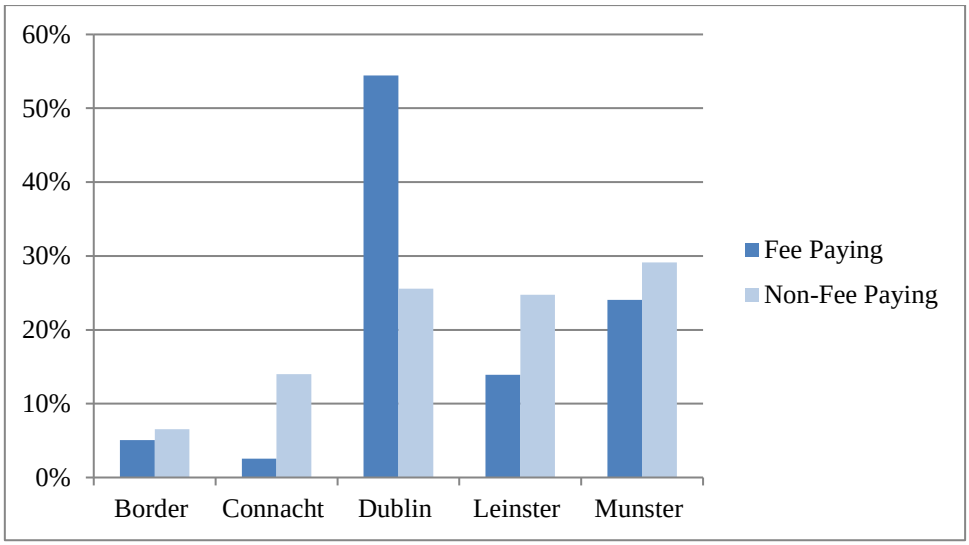
Variable	*Effect*
Interaction Variables	
Urban*Gross Household Income (log)	-0.012
	(0.015)
Rural*Gross Household Income (log) (reference category)	
Period 1 (2004/05)*Gross Household Income (log)	-0.082**
	(0.016)
Period 2 (2009/10)*Gross Household Income (log)	-0.040**
	(0.018)
Period 3 (2015/16)*Gross Household Income (log) (reference category)	

1. SEs are in parentheses.
2. ** Denotes significance at 5% level
3. * Denotes significance at 10% level
4. Robust standard errors have been controlled for.

Manual work and non-manual work occupation status, relative to self-employed HOHs, have a negative association with a household's demand for fee-paying education. A HOH who has a primary or secondary education is less likely to demand fee-paying education relative to a HOH with a third level education. This may reflect parents' want to offer their children the opportunities education has provided them with, or simply to maintain the family's social status (Kornrich and Furstenberg, 2012). It also supports the findings of Lyons et al. (2003) and Burgess (2018) in that educated parents make more active school choices.

Location is also associated with the demand for fee-paying education. Households outside County Dublin experience a negative marginal relationship, in the demand for fee-paying schools. In order to examine the reasoning behind this, the percentage of non-fee-paying schools in each region is shown in Figure 1. It is clear that County Dublin has a disproportionate percent of all fee-paying schools in the country.

Figure 1: The Breakdown of Each School Type in 2015/2016 into Region



Dept. of Education & Skills (2018)

County Dublin contains 26% of all non-fee-paying schools in Ireland but a staggering 54% of all fee-paying schools are in this area. This is supported by the descriptive statistics which show that 50% of households which demand fee-paying schools are residents of Dublin, despite boarding options being available across the country. This is of concern for social segregation as Courtioux and Maury (2018) find that, in France, the contribution of differences between the private and public education sectors grows with the size of an urban area. This is largely due to the small presence of fee-paying schools in rural areas where the opportunity for segregation is less apparent than in urban areas which contain a more diverse range of schools (Courtioux and Maury, 2018). As previously discussed, the demand for private tuition is not location specific because grinds are available countrywide (Smyth, 2009). This furthers the argument that the availability of fee-paying schools is a limitation to human capital investment in some areas.

The divide of female only and male only fee-paying schools is close to equal in Ireland, with there being 16 and 17 schools respectively. The remaining 27 schools are co-educational.

Therefore, it is unlikely that there are substantial gender disadvantages prevalent in the Irish case. We attempted to identify if there may be an income influence explaining the location finding, where households in rural areas may just not be sending children to private schools because they have relatively lower incomes. We used interaction terms to explore this aspect, but they were found to be insignificant which lends even greater support to the hypothesis that the availability of a local fee-paying school in areas outside of Dublin is a limitation to school choice.

The time variable also presents interesting results. The demand for fee-paying education was higher in the pre-recession and the post-recession period than it was in the later recovery period of 2015. Furthermore, when time is interacted with income, it shows that the relationship between income and fee-paying education is becoming more important through time. This suggests that the perception for fee-paying secondary education may be improving amongst high income households and these households are using their wealth to obtain the perceived benefits of fee-paying education, creating a growing risk of social divide. However, these time interpretations obviously need to be viewed with a warning as this is pooled data and not a panel. This finding may simply be a result of sampling differences, where by chance the 2015/16 sample collected less data from fee-paying respondents. In the next section, we discuss the implications of the results.

5. Conclusion

Academic and policy debates on the relationship between school choice and school performance are both controversial and unresolved (Burgess et al., 2018; Hoxby, 2003). Borooah et al. (2010) show fee-paying schools to have greater success in the likelihood of their students transitioning to higher level institutions. However, the performance of fee-paying

schools and their superior transition rates may also be a result of a non-random self-selection of the most affluent students in the country, into this school type. Our current understanding on the type of households that demand fee paying schools in the Irish case is based on more anecdotal evidence than empirical evidence. This research addresses this gap in the literature by examining the types of Irish households that are more likely to demand fee-paying education.

The findings indicate that HOHs who are self-employed and have attained a higher educational level possess a greater affinity to send their children to fee-paying education. This perhaps is not surprising as many alumni of fee-paying schools hold powerful political, business and legal positions in society, which highlights the social power and influence that the graduates of such schools enjoy (Kennedy and Power, 2010). Self-employed and better educated individuals may perceive the connections that will be made by their children during their time in fee-paying education as essential for obtaining opportunities and success in their later careers.

The results indicate that there is a geographical bias in the distribution of fee-paying education. Families outside of Dublin, appear to be geographically disadvantaged, largely because they are far from where most of the fee-paying education provision is located. This creates an opportunity for fee-paying schools to possibly enter unexploited markets. Comparative research could explore whether capital regions are generating greater inequality in terms of access to fee-paying education across different national settings.

The demand by households for fee-paying education has also fallen over time. This decline during the recessionary period supports the findings of Smyth (2009), where enrolments in fee paying schools decline in a period of decreasing incomes. However, the decreasing demand post-recession contradicts this thinking and suggests that demand is, in fact, falling irrespective of the economic climate. A further, more nuanced finding is identified with

the interaction variable between income and time. The demand for fee-paying schools is becoming increasingly favoured by the top earning households. This could perhaps result in greater social divisions than those that already exist. It would be interesting to explore if this phenomenon persists further through time and holds in the international case. As indicated previously in the results section, this finding would benefit from an analysis using panel data. Currently a dataset to explore this aspect does not exist in the Irish case and hence this could also be an area for future research. Panel data would also provide a clearer picture around the causal determinants of choosing fee-paying schools.

Lastly, in the Irish case, it cannot be ignored that fee-paying schools do better in national league tables, relative to non-fee-paying schools. Borooah et al. (2010) suggest this may be due to these types of schools providing a superior opportunity to enter third level education. This leans to an argument that there is a greater performance return from commercially motivated schools vis-a-vis non-commercially motivated schools. Interestingly, our results indicate that the type of students enrolled in private schools derive from more affluent, better educated and, arguably, better located households. Shiel et al. (2016) find that across OECD countries, 15-year-old students' economic and social status explains a significant amount of the variation in their school performance, with those from well-off economic backgrounds performing better. Our findings highlight that economic and social status is also highly influential in a household's choice to demand fee-paying over non-fee-paying schools. Therefore, self-selection bias may go a long way in explaining the performance differential between fee paying and non-fee-paying schools rather than it being a question of a school's offering and their county's socio-economic environment. We believe future research needs to disentangle which determinant may be more important in explaining the performance of schools; self-selection based on affluence or school offering. This would enlighten any discussion around whether or not the Government should consider a transition to a fee-paying

market or eliminate fee-paying schools altogether in an effort to reduce the social divide that private schools may exacerbate.

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