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An Assessment of Religious Segregation in Northern Ireland's Schools

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Abstract

Reflecting the deep ethno-national differences that exist between the Protestant-British and Catholic-Irish communities in Northern Ireland, a considerable wealth of knowledge exists on the nature and intensity of residential segregation. However, in contrast there have been relatively few empirical studies undertaken to quantify the scale and intensity of religious segregation between Protestant and Catholic pupils in Northern Ireland's schools. This paper aims to contribute to the literature by using school census data from the Department of Education (DoE) for the school year 2018/19 to investigate religious segregation from several perspectives including (1) educational stage, (2) school type and (3) by pupils' religion. The analysis will adopt well established indices to capture two dimensions of segregation; firstly, population unevenness to measure the intensity of segregation between Protestant and Catholic pupils using the index of dissimilarity (D) and the degree of unevenness by each religious and non-religious group using the segregation index (IS). The second dimension – social exposure will be used measured using the interaction index (P^*x) to explore the intra group inter-group contact. The main findings from this study are that primary schools are more segregated than post-primary attributed to smaller, more localised catchment area and the influence of familial ties. The Protestant "Controlled" sector is less segregated than the Catholic "Maintained" sector due to a more religiously diverse intake. There is an absence of segregation in integrated schools reflecting an ethos of religious diversity and inclusion. When the results of segregation indices are compared with the residential segregation literature, schools are significantly more segregated.

Keywords: religious school segregation, Northern Ireland, ethnic conflict education

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1.0 INTRODUCTION

This paper is borne out of a lack of empirical evidence on the intensity and nature of religious segregation in Northern Ireland's education system. Northern Ireland's citizens are intuitively aware from an early age of the presence of a segregated school system, yet this has not been empirically verified in the published literature. This is surprising given that Northern Ireland has a rich history of residential segregation research beginning with the work of Estyn Evan's in 1944 in which he remarked a striking East/West split in the religious composition of Belfast (Evans, 1944). However, it was not until the onset of the Troubles in 1969 that residential segregation indices (Boal, 1987; Boal & Livingstone, 1984; Doherty & Poole, 1997). Researchers attention were drawn to the impact of 'refugee like' flows of internally migrating people leaving religiously mixed areas was having on the evolving religious landscape (Darby, 1986; Smith & Chambers, 1991). Areas once considered mixed became the boundary zone between majority Protestant and Catholic areas demarcated with the construction of physical barriers which have become known as 'peace walls' to keep the two communities apart (Boal & Livingstone, 1984).

In contemporary times, research has focused on the positive impact peace and relative political stability has had on residential segregation levels and the degree of inter-religious mixing in the housing market (McPeake, 1998; Shuttleworth & Lloyd, 2011). However, over this time period, research on educational segregation has been limited and methodologically descriptive in nature. The divergence in methodological approach is problematic as it makes comparisons between the different forms of segregation (labour market, residential and education) impossible. It is in this knowledge vacuum that this paper draws on school level data to understand the intensity of school segregation based on Protestant/Catholic pupil unevenness using the index of dissimilarity (D) along with an assessment of intra group segregation using the index of segregation (IS). Social exposure between Protestant and Catholic pupils will be investigated using the interaction index (xPy). The analysis will take place at several levels including by level of education between Primary and post-primary and by the type of school (controlled/non-denominational, Catholic Maintained, Irish Medium and Integrated). The results will provide a benchmark for further temporal studies to take place to investigate whether segregation in schools is changing over time and secondly to compare levels of segregation with published research on residential segregation to identify which is more/less segregated.

2.0 BACKGROUND LITERATURE

2.1 Historical Context

Northern Ireland is a highly cited case study in the humanities literature as an example of a divided society where two ethno-national groups possess opposing national identities and competing claims of sovereignty. The historically larger Protestant community predominantly attest to a British identity and as Unionists are keen for NI to remain an integral part of the United Kingdom. This is at odds with the majority of Catholics who affiliate as Irish of whom a sizeable proportion seek the political objective of Irish reunification. These competing claims to nationhood have simmered into open conflict which was witnessed with the onset of the Troubles in 1969 which lasted up until the signing of the Good Friday Agreement in 1998. Notwithstanding the immense shift towards relative peace and political stability sporadic violence remains a constant threat especially during continuous periods.

With the existence of two separate ethno-national communities with diverging identities, Northern Ireland has become characteristic of a 'pillarised' society'. The notion of a pillarised society derives from the experience of the Netherlands from the 1920's until the 1960's (Bryant, 1981). Over this time period, the Netherlands institutionally imposed a form of voluntary 'apartheid' which in Dutch is referred to as 'verzuiling' and in English 'pillarisation' (Kruithof, 1990: 238 cited in Sturm, Groendijk, Kruithof, & Rens, 1998). Pillarisation can be conceptualised as an institutionally initiated and accepted form of voluntary separation of groups based on a given ethnicity/religion. In this context, society is vertically divided into pillars, with each religion granted autonomy by the state to operate their own separate civic and social institutions including schools. The concept of pillarisation is highly applicable to Northern Ireland where the Protestant and Catholic communities have separate political parties, neighbourhoods, social networks, schools, sports and cultural traditions.

2.2 Religious Education in Northern Ireland

Since its inception in 1921 Northern Ireland has inherited a highly complex and religiously segregated school system which continues to the present day. The current educational model can be traced back to the early educational parliamentary acts in the newly established state. The first Education Minster of Northern Ireland, Lord Londonderry sought to address the problem of a parallel schooling system based on religious identity by setting up the Lynn Committee with the aim of reorganising the education system of the newly formed state (Smith, 2001). Lord Londonderry's 1923 Act was passed with the aim of bringing church schools under state control devoid of religious teachings (Abbott, 2010; Smith, 2001). Attempts to harmonise and secularise the schooling system was met with fierce opposition by both the Protestant and Catholic churches along with Orange Order (Barnes, 2005). Against the backdrop of opposition, the 1923 Act was later amended in 1925 and 1930 which reversed the decision to ban religious teaching in schools, however the acts did oversee the transfer of school funding from Protestant churches to the state coupled with a significantly reduced role of Protestant religious leaders in what are now known as 'Controlled schools' (Hayes, McAllister & Dowds, 2007). In comparison, the Catholic Church continued to contribute a significant proportion of its funding with aim of maintaining a significant role in school life and teaching in what are now known as 'Catholic Maintained' schools (Abbott, 2010). Over time the level of funding by the state in Catholic schools has grown. Development of the integrated education came in 1981 when the first integrated school was formed in Belfast in 1981 which was initially self-funded, along with the establishment of the Northern Ireland Council for Integrated Education (NICE) in 1987 (Byrne & Donnelly, 2006). The 1989 Education Reform Order gave the Department of Education a statutory duty to "encourage and facilitate the development of integrated education", it was within this framework that that integrated schools could obtain government funding (Topping & Cavanagh, 2016: 10). Further education reform was delivered through The Education Order of 1998 which placed a responsibility on the Department of Education to encourage the development of Irish Medium education (DENI, 2008). The Council for Irish language medium education referred to in Irish as the Comhairle na Gaelscolaíochta (CnaG) was established in 2000 and acts as the representative body for Irish medium schooling.

2.3 Structure of Northern Ireland's Schools

Schools in Northern Ireland can be categorised into four sectors, each with a distinctive religious/cultural ethos; Controlled/non-denominational, Catholic, Integrated and Irish Medium. The Catholic Maintained sector is by far Northern Ireland's most overtly religious sector by fully embedding a Catholic ethos in schools. Catholic ethos schools are largely managed by the Council for Catholic Maintained Schools (CMS) with exception of voluntary Catholic Grammar schools. The Controlled sector promotes a broad Christian ethos and is managed through a Board of Governors (BOG) with teachers employed by local educational boards. The BOG is composed of parents, members of the community, teachers and an assigned role known as 'Transferors' who are nominated by the three main Protestant churches; Church of Ireland, Presbyterian and Methodism. Reflecting its name, the integrated sector seeks to promote a balanced intake of Protestant and Catholic children with the aim of building greater inter-community understanding in a non-sectarian environment. Unlike the Controlled and Maintained sectors, church leaders are not involved in the management of integrated schools. The Irish Medium sector is the smallest and most recent sector to emerge in Northern Ireland. Irish medium schools educate children through the medium of Irish, with English taught as a second language. Irish culture and sporting traditions are also an important feature of Irish medium schools.

2.4 Social and Economic Ramifications of Segregation Schools

In addition to parents and the wider community, schools have an important role in the shaping of a child's cultural and national identity. Schools are important arenas for the establishment and conditioning of social and cultural norms which according to Durkeim (1961) enables the state to be reproduced and maintained. National curriculums ensure uniformity in the teaching of a common collective national language, social and cultural norms, and the history of the nation. According to Anderson (1991) the teaching of history helps to bind people together by linking them to a shared past, which in advertently leads to a 'them' and 'us' mentality (Anderson 1991). Torney (2006) draws attention to the selective teaching of history in what is remembered and what is forgotten. Since 1989 all schools in Northern Ireland regardless of management type follow a common curriculum which aims to promote critical thinking and help alleviate the contentious issue of the selective teaching of history (Gallagher, 2017). However, Gallagher (2003) noted that there is still a tendency to selectively teach history, with Catholic schools teaching history from an Irish perspective and Controlled schools from a British perspective. In addition to history, national rituals and events are also celebrated differently based on school type which helps to frame and condition children' sense of national identity and belonging (Havighurst & Davis, 1943: 29). Controlled Schools typically take on a British ethos by taking part in Remembrance Day, the teaching of Guy Fawkes and celebrating Jubilee events for Queen Elizabeth. Meanwhile Catholic schools celebrate Irish rituals including St Patricks day along with the inclusion of Irish sports including Gaelic football and hurling (Hayes, McAllister & Dowds, 2007).

A highly segregated schooling system prohibits meaningful social interaction between children of different faiths which can prevent an appreciation of cultural/religious differences laying the foundations for myths and prejudices to be formed (McArdle and Acevedo-Garcia, 2017). The principles of the 'contact hypothesis' put forward by Allport (1954) is built on the premise that the act of bringing members of opposing groups together can reduce prejudice (Gallagher, Smith, & Montgomery, 2003). This assumption has formed a central tenant of contemporary educational policy initiatives. This has been in the form of greater inter-school collaboration along with the establishment of integrated schools (discussed further in the proceeding sections). The parallel nature of Northern Ireland's school system has a negative economic cost through the duplication of schools in relatively small geographical areas. In 2010 a report titled 'Developing the Case for Shared Education' stated that shared education would help

reduce the 500,000 empty places that exist in Northern Ireland's schools and alleviate the negative impact cuts to school budgets in an age of austerity.

2.4 Policy Initiatives

Following the signing of the Good Friday Agreement in 1998 which paved the way for the restoration of the Northern Ireland Assembly in 2007, policy makers have set out to tackle the structural problem of segregation. Segregation has been viewed as a barrier to lasting peace and stability (Balcells, Daniels, & Escribà-Folch, 2015). Along with residential segregation, education has received a high level of attention by policy makers (Smith & Hansson, 2015). Contemporary initiatives aimed at tackling school segregation has been less ambitious compared to those proposed by Lord Londonderry and have concentrated in creating more opportunities for inter-religious contact. Duffy and Gallagher (2014) identify three approaches adopted by educationalists in Northern Ireland to enhance intergroup contact including contact programmes, curricular initiatives, and the establishment of integrated schools. As part of the 'Sharing Education Programme' initiated in 2007, contact programmes provides an opportunity for pupils from different sectors to come together to take part in extra-curricular activities and summer schemes (Connolly, Purvis & O'Grady, 2013; Hughes & Loader, 2015). To maximise subject choice, schools have been encouraged to work in partnership to maximise subject choice in GCSE's and A-Levels, pupils attend a different school to acquire a subject choice not offered in their own school. As previously discussed, the third strand involves the statutory requirement of the Department of Education to fulfil their commitment to the development of integrated schools (Blaylock & Hughes, 2013).

2.5 Previous Research on Educational Segregation

Previous research on the prevalence of religious segregation in Northern Ireland has largely adopted a descriptive methodological approach. Using published data from the Department of Education, Studies have used the number and proportion of Protestant and Catholic pupils attending Controlled and Catholic Maintained schools as a proxy for the prevalence of segregation. 93.6% of Protestant pupils attend a Controlled school and 92.2% of Catholic pupils attend a Catholic Maintained school (Osborne, 2004: 72). In an exception to the broader literature, Borooah and Knox (2017) used the entropy index to find that Catholic schools were the most segregated, meanwhile Protestant schools were significantly less segregated. Borooah and Knox (2017) reasoned that the differential was due to Controlled schools having a higher proportion of Catholics compared with Protestants in Catholic Maintained schools. In terms of school type, secondary schools were found to be less religiously diverse both for Catholic and Protestant schools. In comparison to Northern Ireland, the quantification of school segregation has been more developed in Great Britain where residential segregation indices have been used more widely. Employing the index of dissimilarity and the isolation index Burgess, Wilson and Lupton (2005) found that schools in England were highly segregated along ethnic lines.

In contrast, qualitative based research has featured more prominently in the Northern Ireland literature which has documented the quality of social contact of school pupils with the 'other' community. Research to date has found that children attending a non-segregated/integrated school had a greater number of friends from other religious backgrounds which continued into adulthood (Irwin, Hughes & Bar, 1991; Trew, 1986). Research by Stringer et al (2000) found that children attending an integrated school expressed a more liberal view on mixed marriages between Protestant and Catholics. Abbott (2010) conducted 50 semi-structured interviews which included 10 principals and 40 pupils at primary and post-primary integrated schools. The authors noted a strong sense of belonging amongst pupils and an appreciation of cultural, linguistic and religious differences. Post-primary pupils voiced an absence of sectarianism and placed value on inter-religious friendships along with an understanding that such relations were unlikely to have formed if they had attended a segregated school.

3.0 Data and Sample Selection

This paper makes full use of school level census data from the Department of Education for the academic year of 2018/19. The school census takes place on an annual basis in October when the department collects information on the number of pupils attending each school. Data is disaggregated across a number of different socio-demographic characteristics including religion, gender, ethnicity, educational needs and entitlement to free school meals. From this data source, this paper has disaggregated the dataset by educational stage (primary and secondary), school type (described below) and by pupil religion. Given the complex nature of Northern Ireland's school system, it was deemed more appropriate to create a typology of schools that best correspond to the religious ethos of both the parents and pupils.

3.1 Primary Level School Types

At the primary level schools have been grouped into the following categories based on religious ethos; 'Controlled/non-denominational voluntary', 'Catholic Maintained/Catholic Voluntary', 'Integrated' and 'Irish Medium' as shown in table 1. Controlled/non-denominational schools are composed of mainly Controlled primary schools with the addition of voluntary non-denominational schools and Maintained Church of Ireland (COI) schools. The addition of voluntary non-denominational (typically preparatory schools) along with a very small number of COI schools with Controlled schools was based on the premise that these school types promote a broad Christian ethos and are open to all children of all faiths and backgrounds, however are typically attended by Protestant children. Integrated schools are composed of Grant Maintained Integrated (GMI) and Controlled Integrated which both share a similar ethos of religious inclusivity and diversity. Due to the homogenous nature of Catholic Maintained schools this category was retained without any changes. Irish Medium Schools are categorised by the Department of Education as 'Other Maintained' and for the purpose of this paper were renamed as Irish Medium schools.

Sector	Category	Schools	%
Catholic Maintained	Catholic Maintained	363	44.7
Controlled			
Voluntary	Controlled/ Non-Denominational	380	46.7
COI Maintained			
Controlled Integrated	Interrupte d	45	5 5
GMI	Integrated	45	5.5
Irish Medium	Irish Medium	25	3.1
	Total	813	100.0

Table 1: A breakdown of Primary schools by management type.

Sector	Category	Schools	%	
Roman Catholic	Catholic	89	45.4	
Voluntary (Catholic)	Catholic	09	43.4	
Controlled	Controlled/Non-Denominational	85	43.4	
Voluntary (non- Denominational)	Controlled/Inon-Denominational	03	43.4	
Controlled	Integrated	20	10.2	
Grant Maintained Integrated	Integrated	20	10.2	
Other Maintained	Irish Medium	2	1.0	
	Total	196	100.0	

Table 2: A breakdown of Post-Primary schools by management type.

3.2 Post-Primary Categorisation

Categorising school type at the post-primary level is more problematic as in addition to religious division, post primary schools are also subdivided based on academic selection into secondary and grammar schools (table 3).

Secondary schools do not use academic selection, and instead they typically select pupils based on the schools' geographical catchment area. Grammar schools primarily select pupils based on an exam completed in their final year of primary school in Primary 7. Children wishing to attend a Catholic grammar school undertake an assessment formulated by Post Primary Transfer Consortium (PPTC) commonly known as the GL. Meanwhile, prospective students of non-Catholic grammar schools undertake examinations organised by the Association for Quality Education (AQE). Due to the small number of post-primary Irish Medium schools, this category will not form part of the substantive segregation analysis.

Academic Selection	Schools	%
Grammar	66	33.7
Secondary	130	66.3
Total	196	100

Table 3: Number and % of grammar and secondary schools

4.0 Methodology

Taking a different methodological approach to previous studies on educational segregation in NI, this paper utilises established segregation indices to measure the degree of religious division in Northern Ireland's schools. Building on the work of Massey and Denton (1988) who's invaluable systematic review of the residential segregation literature recognised that segregation is a multi-dimensional phenomenon consisting of five dimensions; population evenness, exposure, concentration, centralisation and clustering. The paper has chosen to focus on two of Massey and Denton's (1988) dimensions of segregation which includes population unevenness and exposure. Concentration, clustering and centralisation are more commonly used in the residential segregation literature to quantify segregation in urban areas and are thus inapplicable in an educational context.

4.1 Index of Dissimilarity

The index of dissimilarity has been the index of choice by the wider segregation literature. The index was first conceived by conceived by Duncan and Duncan (1955) which measures the spatial unevenness between two groups (Peach, 1975). The index is expressed as a score ranging from 0 indicating relative population evenness across space, indicative of high levels of dispersion across space (Iceland, 2013). In contrast, a score close to 1 indicates complete unevenness and segregation between two groups. A key feature of the index according to Sabater and Finney (2015) relates to the index being "invariant to the size of the populations" being studied which enables an assessment to be made of the changing levels of segregation over time (Sabater & Finney, 2015: 274).

The formula for the index of dissimilarity is shown below;

$$D = 0.5 \sum_{i=1}^{n} \left(\frac{x_i}{x} - \frac{y_i}{y} \right)$$

where x_i and y_i are the respective number of Protestant and Catholic pupils in school i and X and Y represent the total of Protestant and Catholic pupils across all schools.

4.2 Segregation Index

The single variant of the index of dissimilarity known as the 'index of segregation' by Duncan and Duncan (1955) is derived by calculating the evenness of a group compared with the rest of the population combined (Duncan & Duncan, 1955: 494). Like the index of dissimilarity, a low score indicates low levels of segregation and a high score high levels of segregation.

The formula for the index of segregation is displayed below;

$$IS = 0.5 \sum_{i=1}^{n} \left(\frac{x_i}{x} - \frac{t_i - x_i}{T - x} \right)$$

where x_i are the number of Protestant/Catholic pupils in school *i* and t_i represents the total number of pupils in school *i*. *T* is the total number of pupils in all schools and *X* symbolises the respective total number of Protestant/Catholic pupils. Important to note that the segregation index will be calculated for the Protestant and Catholic groups separately.

4.3 Interaction Index

In order to better understand how much Protestant and Catholic pupils are exposed to each other this paper will draw on the work of Lieberson (1969) who derived the multi-group interaction index (xP*y). The interaction index captures the typical level of social contact between members of different groups. Unlike the index of dissimilarity, Lieberson's interaction index is "dependent upon group size" (Robinson, 1980:307). This enables the index to measure exposure asymmetrically, capturing how segregation is felt and experienced from the perspective of different groups. The amount of contact by group A with group B is not the same for group B with group A.

$$P^*x = \sum_{i=1}^n \left(\frac{x_i}{x} - \frac{y_i}{t_i}\right)$$

In addition to the previous formula, y_i is the alternative religion depending on the model performed.

5.0 Results

5.1 Enrolment

Reflecting the importance religion plays in Northern Ireland, 90.7% of pupils enrolled in Northern Ireland's schools attend either a Catholic Maintained or a Controlled/nondenominational school (table 4). In comparison, the Integrated and Irish Medium sectors educate 8.1% and 1.2% of pupils respectively.

A breakdown of the religious composition by educational stage in table 5 reveals that there are 88,286 Catholic pupils at the primary level representing 51.1% of the total intake. 46,619 Catholic pupils attend post-primary schools equating to 51.3% of total enrolment. Protestantism is the second largest religious group with 54,231 primary pupils contributing to 31.4% of enrolment and 32,185 pupils in post-primary schools contributing to 35.4%. A further 17.6% of the primary school population is composed of pupils belong to other faith or no religion. The proportion of pupils belonging to other faiths or no faith is slightly lower in post primary schools at 13.3%.

Primary and Post-Primary	Enrolment	%
Catholic	120679	41.5
Controlled/Non-Denominational	143090	49.2
Integrated	23590	8.1
Irish Medium	3626	1.2
Total	290985	100.0

Table 4: Enrolment by school type.

Pupil's religious background	Primary		Post-Primary	
	Count	%	Count	%
Protestant	54231	31.4	32185	35.4
Catholic	88286	51.1	46619	51.3
Other/No religion	30346	17.6	12130	13.3
Total	172863	100.0	90934	100.0

Table 5: Religious composition of primary and post-primary schools

5.2 Religious Composition of Schools by School Type and Educational Stage

Evidence of a segregated school system is evident in table 6 which denotes the religious composition of school type. It is unsurprising that Catholic pupils represent the overwhelming majority in Catholic ethos schools both at the primary (95.8%) and post-primary (96.1%) stages. Similarly, in controlled/non-denominational schools, the Protestant population makeup up the single largest group in primary (65.1%) and post primary schools (70.8%). However, subtle difference can be observed, there is a distinct absence of Protestant pupils in Catholic ethos primary (0.8%) and post-primary schools (1.4%). This contrasts with Controlled/Non-Denominational schools which has a higher intake of Catholic pupils in primary (8.4%) and post-primary (8.5%) settings.

Integrated schools deviate from the binary Protestant/Catholic divide that frame public discourse as integrated schools attract a sizeable number of children from all religious and non-religious backgrounds. At the primary level integrated schools 32.2% belong to Catholicism, followed by Protestant pupils equating to 32.3% and children of other and no-religion at 31.8%. At the post-primary level, integrated schools are composed of 43.1% Protestant, 34.6% Catholic and 22.2% belonging to other religions/no-religion.

As a relatively small and new sector, Irish Medium primary schools draw on a distinct religious intake. The Catholic faith make up the largest proportion of children at 91.3% which is followed by children of other/no-religion at 8.7%. Due to the small cell counts at the school level, the number of Protestants attending Irish Medium schools cannot be released, from this it can be ascertained that there is an absence of Protestants in these schools.

In addition to religious ethos, Northern Ireland's post-primary schools have a further differentiation between grammar schools which select children based on academic merit and non-selective secondary schools. Table 8 provides a comparison of the religious composition between grammar and non-selective post-primary schools. There is slightly larger proportion of pupils belonging to Other religions and no-religion attending grammar schools (13.8%) than non-selective secondary schools (11.5%). In proportional terms there is a slightly greater intake of Catholics in the non-selective sector (52%) compared with grammar schools (49.6%). There are no meaningful differences between the proportion of Protestant pupils attending between grammar (36.6%) and non-selective schools (36.5%).

Primary School Type	Protes	tant	Cath	olic	Other/No-	Religion	To	tal
	Count	%	Count	%	Count	%	Count	%
Catholic	470	0.8	55652	95.8	1966	3.4	58088	100.0
Controlled/Non-Denominational	52432	65.1	6743	8.4	21395	26.6	80570	100.0
Integrated	3576	32.3	3983	35.9	3524	31.8	11083	100.0
Irish Medium	*	*	2589	91.3	247	8.7	2836	100.0

* Number suppressed due to a small cell count

Table 6: Religious composition of primary schools by school type.

Post-Primary School Type	Protest	tant	Catho	olic	Other/No-	-Religion	Тс	otal
	Count	%	Count	%	Count	%	Count	%
Catholic	868	1.4	60151	96.1	1572	2.5	62591	100.0
Controlled/Non-Denominational	44279	70.8	5297	8.5	12944	20.7	62520	100.0
Integrated	5396	43.1	4330	34.6	2781	22.2	12507	100.0
Irish Medium	*	*	741	93.8	49	6.2	790	100.0

* Number suppressed due to a small cell count

Table 7: Religious composition of post-primary schools by school type.

Post-Primary by Academic Selection	Prot	estant	Catho	lic	Other/No-R	eligion	Total	
	Count	%	Count	%	Count	%	Count	%
Grammar	22580	36.6	30626	49.6	8529	13.8	61735	100
Non-Selective	27963	36.5	39893	52.0	8817	11.5	76673	100

Table 8: Religious composition of post-primary grammar and secondary.

5.3 Segregation Analysis

Reflecting the aim of this paper, the segregation analysis is twofold; the first half will investigate the intensity of segregation captured by population unevenness. Meanwhile, the second half of the analysis will explore the degree of social contact between and within religious groups represented by Massey and Denton's (1988) dimension of exposure.

Education Stage	Index of dissimilarity (D)
Primary	0.88
Post-Primary	0.85

Table 9: Index of Dissimilarity (D) score by educational stage.

Table 9 outlines the degree of unevenness (*D*) between Protestant and Catholic pupils by education stage. The results show that at both the primary and post-primary stages, schools are highly segregated. The *D* scores of 0.88 for primary schools and 0.85 for post-primary schools indicate that Protestant and Catholic children are unevenly distributed across the education system, with each religious community attending schools based on a similar religious/community ethos. When compared with residential segregation, schools are significantly more segregated. Applying the index of dissimilarity to 2001 census gird square data, Shuttleworth and Lloyd (2009) obtained a score of 0.65 for religious residential segregation. This shows that schools are significantly more segregated than Northern Ireland's housing market. A comparison between primary and post-primary schools reveals that children are more segregated at the primary level and less so in post-primary system, however the difference is minimal. In order to achieve an even distribution of Protestant and Catholic children across the school system would require 88% of pupils at the primary level and 85% of pupils at the post-primary stage to move school in order to achieve an even distribution.

Index of Dissimilarity (D)	Primary	Post-Primary
Controlled/Non-Denominational	0.57	0.49
Catholic	0.85	0.77
Integrated	0.27	0.37

Table 10: Index of dissimilarity (D) by educational stage and school type.

Comparing the Index of Dissimilarity by school type and educational stage in table 10 reveals a number of noteworthy findings. The results reveal that the Catholic Maintained is the most segregated school type at both at the primary (0.85) and post-primary (0.77) levels. The Controlled sector is the second most segregated sector yet remains significantly less segregated than the Catholic sector with a score of 0.57 and 0.49 for the primary and post-primary stages. Integrated schools are the least segregated, with a score of 0.27 at the primary level and 0.37 for post-primary schools, this indicates that Protestant and Catholic children are more evenly distributed across integrated schools.

Segregation Index (IS)	Primary	Post-Primary
Protestant	0.71	0.71
Catholic	0.85	0.84
Other/No-Religion	0.62	0.47

Table 11: Segregation index (IS) by religious and non-religious backgrounds.

The results from segregation index (*IS*) in table 11 provides a snapshot of the varying levels of pupil unevenness by pupil religion/non-religion across both the primary and post-primary stages. Catholic pupils are more segregated at the primary (0.85) and post-primary (0.84) levels compared with protestant children (0.71). Children belonging to other faiths and no faith display a moderate degree of spatial unevenness at the primary level with an *IS* score of 0.62, however at the post-primary level this has decreased to 0.47.

The results of the interaction index (P^*x) show that at the Primary stage Protestant and Catholic pupils have very low levels of exposure to one another, Protestant pupils have a 7% chance of meeting a Catholic pupil and 6% for Catholics encountering a Protestant pupil (table 12). At the Secondary stage the level of interaction between a Protestant and Catholic pupil is reduced to 5% however the levels of exposure to Protestant pupils by Catholics is higher at 19% (table 13). The analysis will first focus on the interaction between the majority and minority groups between the two main sectors. In Primary and Secondary Controlled/Non-denominational schools Protestant interaction with Catholic pupils is relatively low at 5%. A similar pattern is found in Catholic Primary and Secondary schools between Protestant and Catholic pupils are significantly higher in integrated schools. The chance a Protestant will meet a Catholic pupil in an integrated Primary school is 31% and for vice versa 30%. A similar pattern is found at the secondary level with contact levels at 32% and 35% respectively.

Primary Level (<i>P*x</i>)	Protestant-Catholic	Catholic-Protestant
All Schools	0.07	0.06
Controlled/Non-Denominational	0.05	0.40
Catholic	0.57	0.01
Integrated	0.31	0.30

Table 12: Levels of interaction (P^*x) between primary school pupils

Post-Primary Level (P*x)	Protestant-Catholic	Catholic-Protestant
All Schools	0.05	0.19
Controlled/Non-Denominational	0.05	0.63
Catholic	0.45	0.01
Integrated	0.32	0.35

Table 133: Levels of interaction (P^*x) between post-primary pupils

6.0 Discussion

2018 marked the 20th anniversary of the Good Friday Agreement in 1998 which has paved the way for relative peace and political stability in Northern Ireland. However, the findings of this paper show that Northern Ireland's schools continue to remain divided along religious lines. Using established segregation indices, the results show that schools are markedly more segregated than Northern Ireland's housing market which has historically received greater scholarly attention. Several explanations can be offered to explain why schools remain segregated at a time when Northern Ireland has proposed from peace. Firstly, school choice is likely to be determined by the religious background of parents who select a school that best meets the child and family's cultural/religious needs. As religion continues to remain an integral part of identity in Northern Ireland, some parents with a strong religious conviction

may possess a desire for their children to attend a Catholic or Controlled/Non-Denomination school. Stringer et al's (2010) study of the transmission of parental political attitudes on children found that parents with a strong political/religious identity were more likely to choose a segregated school than parents with more moderate views. The desire for their child to attend a school that is representative of their own religious background is also influenced by the wider neighbourhood. As a legacy of the Troubles, segregated areas were disproportionately affected by violence and continue to remain highly closed spaces. Segregated areas can be physically enclosed with the existence of peace walls along with the use of symbols and flags to demarcate territory and socially in terms of who enters the area. In this context, there is a stigma attached to those attending integrated schools or schools that have a different religious ethos to that of the neighbourhood. The colour of school uniforms are an instant marker of religion, schools with a Protestant ethos typically choose red and navy with Catholic school uniforms being green. The 2001 'Holy Cross' dispute in North Belfast exposed the sensitives of religion and territory (Shirlow, 2006). In their daily walk to school, pupils attending Holy Cross Catholic primary school walked through a majority Protestant area which sparked protests and violence by residents who viewed this as an unwelcome encroachment on their area.

Secondly, the perpetuation of segregated schools can also arise from non-sectarian factors including the role of familial and emotional ties to a local school. Walker and Clark's (2010) investigation of school choice in rural England noted that amongst the long term residents there was a strong commitment to their local school compared with newcomers to the area who were more likely to increase their geographical reach. Local residents expressed a strong emotional attachment along with the prevalence of familial ties. The study underscores the role of place plays in school choice particularly at the primary level. The desire for a child to attend a local school likely to unintentionally interact with religion. Research by Lloyd and Shuttleworth (2012) on religious segregation in Northern Ireland found that the province is composed of island like regions with each region overwhelmingly dominated by one religious' community. It in this context, schools are contained within these 'islands' and thus are likely to draw on a specific religious composition of children. As primary schools have a smaller catchment area, there is a higher chance that pupils living closest to the school are likely to be of the same religion. Post-primary schools have larger catchment areas and therefore attract pupils of different religions living in a number of areas which helps to partly explain partly why postprimary schools are less segregated than primary schools. When selecting a suitable postprimary school parents weigh up a number of factors including academic performance in

GCSEs and A-Levels along with provision of extra-curricular activities. In some special circumstances more liberal, less religious parents may overlook the overall religious composition and ethos of a school that outperforms other schools in the area.

The high levels of segregation found in the Catholic Maintained sector reflect the religious makeup of the sector which is almost exclusively Catholic. The finding that Controlled/non-denominational schools are less segregated can be explained by its religious intake. Controlled/non-denominational schools have a higher proportion of Catholics compared with Protestants in the Catholic Maintained sector along with a large minority of children belonging to other religions or non-religious. In this environment, Protestant and Catholic pupils have limited opportunities in their schools to meet fellow pupils from different religious backgrounds. The Integrated sector provides evidence of the benefits of a balanced intake of Protestant and Catholic pupils which significantly increases social exposure and interaction. Through meaningful contact, pupils can better appreciate religious diversity and break down barriers.

7.0 Conclusion

This paper confirms that the persistence of ethno-national differences between Protestant and Catholics have helped to create and sustain a highly segregated schooling system with Protestant and Catholic children attending different schools. By adopting established segregation indices this paper has found that Northern Ireland's schools are significantly more segregated than the housing market which has historically received greater attention by academics and policy makers. The main analysis found that segregation between Protestant and Catholic pupils is greatest at the primary school level which is attributed to the intersection of school catchment areas and the underlying religious geography. By sector, Catholic schools were found to be the most segregated due to a lack of religious diversity. Whilst also highly segregated, Controlled/non-denominational schools are less segregated schools than Catholic schools which is attributed to a large minority of Catholic and non-religious pupils. The lack of segregation in the integrated sector reflects the intake of a third Protestant, Catholic and nonreligious pupils. In the absence of a radical restructuring of the Northern Ireland educational system, policy should be focused on alleviating the negative impact of a parallel educational system by enhancing opportunities for meaningful inter-religious social contact between children of segregated schools. Greater contact will help to build greater cultural awareness and an appreciation of cultural and religious diversity.

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