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Changing patterns of marriage and work in Ireland, 1926-1951

by

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Abstract:

Marriage is closely tied to economic status, and delayed marriage is often a sign of poor economic conditions for younger people. After a century of decline, marriage rates in Ireland appeared to turn a corner in the 1930s. This study examines this apparent period of transition using census data and finds that in reality marriage rates for men engaged in agriculture continued to decline at least until the middle of the twentieth century, and that when it came to the issue of marriage this sector diverged from the rest of the economy. These findings give us an important insight into the relationship between land, employment, and marriage in Ireland, and have interesting implications for parts of the world where the demographic transition is in its early stages.

Key words: Historical demography, delayed marriage, Ireland, agriculture

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"Ever since the famine days it has been a political saga of regret that our small farming community was condemned to the raising of children for export. In the light of its ceasing to be able to raise them even for export, the emigration era will soon begin to assume the aspects of a Golden Age."

- Letter to the *Sunday Independent* newspaper from "An Nóinín", 4 May 1947

Terminological note: The Irish state referred to itself by a number of different names during the period under study: "the Irish Free State", "Saorstát Éireann", "Ireland", "Éire" and "the Republic of Ireland". For simplicity's sake, "Ireland" in this study refers to the sovereign state with its capital at Dublin, and does not include Northern Ireland. Where Northern Ireland is included, I refer to "the island of Ireland".

1 Introduction

1.1 Does marriage matter?

Marriage fits uneasily into the catalogue of demographic processes that occur over the lifetime of the individual, and its economic causes and effects are to this day the subject of considerable debate. Marriage is not essential, unlike birth or death, and it lacks the transformative effect of migration. So does marriage matter at all? It seems to have important effects on the other major demographic processes. Obviously, marriage drastically increases the probability of childbearing, but married people also tend to live longer, and to enjoy more stable lives. (Wachter, 2014) Marriage also appears to have economic effects that have been widely debated. It is not clear if the "marriage premium", as a result of which married men earn more than their unmarried counterparts, is a consequence of the benefits of marriage or the result of a selection bias, but nevertheless it is a phenomenon which has been widely observed. (Ginther & Zavodny, 2001)

From a historical perspective, marriage behaviour is important because it has been a means of fertility control. With early and universal marriage, fertility was unsustainably high; delaying marriage, therefore, became a means of reducing the overall number of children born, though these practices often came into conflict with strong cultural and religious impulses towards earlier marriage. (Sklar, 1974) More recently, a marital moratorium was one method employed by the Chinese government after 1949 to regulate population growth; this policy had a strong effect on the mean age at first marriage, but its effect on fertility was weaker as a result of adjusted birth intervals. (Ye, 1992) What we see in most modern cases is that although marriage is in essence an individual decision made for individual reasons, the effects of changing marriage behaviour can be wide-ranging and felt throughout society.

Marriage is also important because its causes – beyond the most obvious ones – can tell us a great deal about the economic and social status of the individuals within a society. Debate has raged for many years over the competing influence of economic and ideational change in driving marriage behaviour. Marriage has always been closely connected to the formation of a new household, and so material resources and employment opportunities have been essential factors in determining marriage behaviour. The ideational view of marriage tends to downplay the importance of an individual's physical situation in determining their behaviour, instead focusing on their beliefs and values. In more recent times, this ideational view has tended to be associated with the concept of the Second Demographic Transition, in which a shift from marriage to cohabitation has contributed to a decline in fertility and a delay in the timing of childbearing. (Fukuda, 2016)

Ireland has long been an important case study for the relationship between marriage behaviour and economic status, and many of the causes and effects of marriage decisions

outlined above have been observed in an Irish context. While much of western Europe lived in the demographic shadow of the Black Death for centuries afterwards, Ireland's great population shock came much more recently, and as such, the effects of this shock can be studied more closely. Delayed marriage in Ireland was seemingly an instrument of fertility control, but as we will see, was also intimately connected with migration patterns. An examination of marriage patterns in Ireland during the country's economic transition in the middle of the twentieth century has the potential to illuminate our understanding of how nuptiality can effect economic change, and how it can be affected by it, in developing regions of our modern world.

1.2 Delayed marriage in Ireland after the Great Famine

The declining willingness of Irish people to marry in the century following the Great Famine of 1845-1849 has been well documented. In 1841, on the eve of the Famine, about 43 per cent of men and 28 per cent of women aged 25-34 were single. Over the decades that followed, these percentages increased, peaking at 74 per cent for men and 56 per cent for women in 1911. Only from the mid-1930s onwards did the figures decline, reaching 50 per cent for men and 31 per cent for women by 1966. (Kennedy, 1973) While the increase in the percentage unmarried was consistent, the rate of increase varied over time, and tended to be inversely correlated with emigration levels: times of high emigration coincided with a slowing rate of increase, while times of low emigration tended to be associated with an acceleration in postponement. (Guinnane, 1997) This is not surprising, because both emigration and marriage were closely connected to the issue of land ownership.

Prior to the Famine, land was subdivided between multiple heirs, meaning that there was little immediate impediment to all young people in a family marrying and inheriting. After the Famine, this practice ceased, and a much greater psychological emphasis was placed on maintaining the integrity of the family farm. (Connolly, 2015) The stem family system developed, whereby an extended family of several generations would live together on a farm, but, unlike the "joint family system" seen in India and China, there was only one heir, meaning that those who would not inherit faced a choice of either leaving home, or staying behind as unmarried, unpaid agricultural labourers. (Kennedy, 1973) Another consequence of this was delayed inheritance, as older patriarchs sought to hold on to their farmsteads for as long as possible, and this was part of the conventional explanation for delayed marriage. (Guinnane, 1997) That these low rates of marriage were combined with high marital fertility gave rise to a "Malthusian" explanation: that low marriage were a mechanism for keeping the population level in check.

Table 1.1: Average annual number of marriages per 1,000 of population across various countries and national sub-units, 1930-1951

Country	**1930-35**	**1936-45**	**1946-51**
United States	9.2	11.4	12.5
South Africa*	9.3	10.9	10.8
Czechoslovakia	8.4	8.5	10.6
New Zealand**	7.4	9.4	10.1
Finland	7.2	8.9	10.0
Austria	6.9	9.0	9.8
Canada	6.6	9.2	9.7
Australia	7.1	9.7	9.7
France	7.6	6.5	9.3
Netherlands	7.3	7.7	9.3
Denmark	8.6	9.2	9.2
Belgium	8.0	6.9	9.1
Norway	6.5	8.2	8.9
England and Wales	8.1	9.0	8.7
Sweden	7.3	9.4	8.3
Switzerland	7.8	7.9	8.3
Scotland	7.1	8.5	8.3
Italy	6.9	6.7	8.3
Portugal	6.7	6.9	7.8
Spain	6.6	6.5	7.6
Northern Ireland	6.2	7.5	6.9
Ireland	4.7	5.4	5.5

*European population only
**excludes Maori population

(Source: Department of Social Welfare, 1955, p. 64)

Incomes in Ireland generally rose in the second half of the nineteenth century, at a rate comparable to Great Britain; nevertheless, emigration, which was relatively cheap and was aided by strong diaspora networks, remained a popular option. (Guinnane, 1991) Twenty-six of Ireland's thirty-two counties left the United Kingdom and formed the Irish Free State in 1922. The new state was predominantly agricultural – most of Ireland's industrial infrastructure was located in the six counties that became Northern Ireland – but not especially so. In 1926, 32 per cent of the Free State's population lived in urban areas, a proportion similar to those in Norway, Sweden and Switzerland at the same time. (Department of Social Welfare, 1955) Nevertheless, the new state faced marriage rates that were perhaps the lowest in the world in modern times. (Walsh, 1970)

Within Ireland, a trend had emerged in the second half of the nineteenth century. In 1871, the highest marriage rates had been found in the westernmost province of Ireland, Connacht, a region characterised by small, poor farms, while the lowest rates were in the more prosperous and less rural provinces of Ulster and Leinster. By 1911, this had totally reversed, with the proportion of women married between 15 and 45 declining by over a quarter over this period in Connacht and the southern province of Munster, compared to declines of less than ten percent in the east and north. These major shifts were all the more dramatic because they were accompanied by very modest changes in marital fertility. (Walsh, 1970) By 1936, the final census before marriage patterns began to "normalise", there was a clear trend towards later marriage in rural areas, though only for men. The proportion single in each group converged at higher ages, meaning that overall non-marriage rates showed less dramatic differences.

1.3 Aim and scope

By examining the period from 1926 to 1951, which represented the beginning of the transition from "traditional" to "urban" marriage patterns, this thesis seeks to situate this apparent turning point in Irish marriage behaviour in a proper theoretical context. Demographers have long been fascinated by Irish historical demography – David Coleman suggested that "Irish exceptionalism cannot be matched on any comparable demographic scale by any subdivision of a larger Western European country except Northern Ireland" – yet it has often fit uncomfortably into theoretical explanations of the relationship between family change and broader social and economic change. (Hannan, 2015, p. 41) The aim of this study, therefore, is to establish if delayed marriage was a maladaptive response to economic problems, or if it encouraged economic habits that made the rural economy better off and, eventually, made such behaviours redundant. This question is central to the current scholarly debate around historical rural marriage patterns throughout Western Europe, as will be outlined in detail in Chapter 2, and has the potential to illuminate our thinking around economic development in parts of the world that have not yet fully undergone the demographic transition.

The intention of this study is to examine empirically the relationship between economic status and marriage rates between 1926 and 1951, by looking at the aggregate returns from the censuses of 1926, 1936, 1946 and 1951. In particular, it aims to establish whether or not the recovery in marriage rates in Ireland that began in the mid-1930s can observed within the

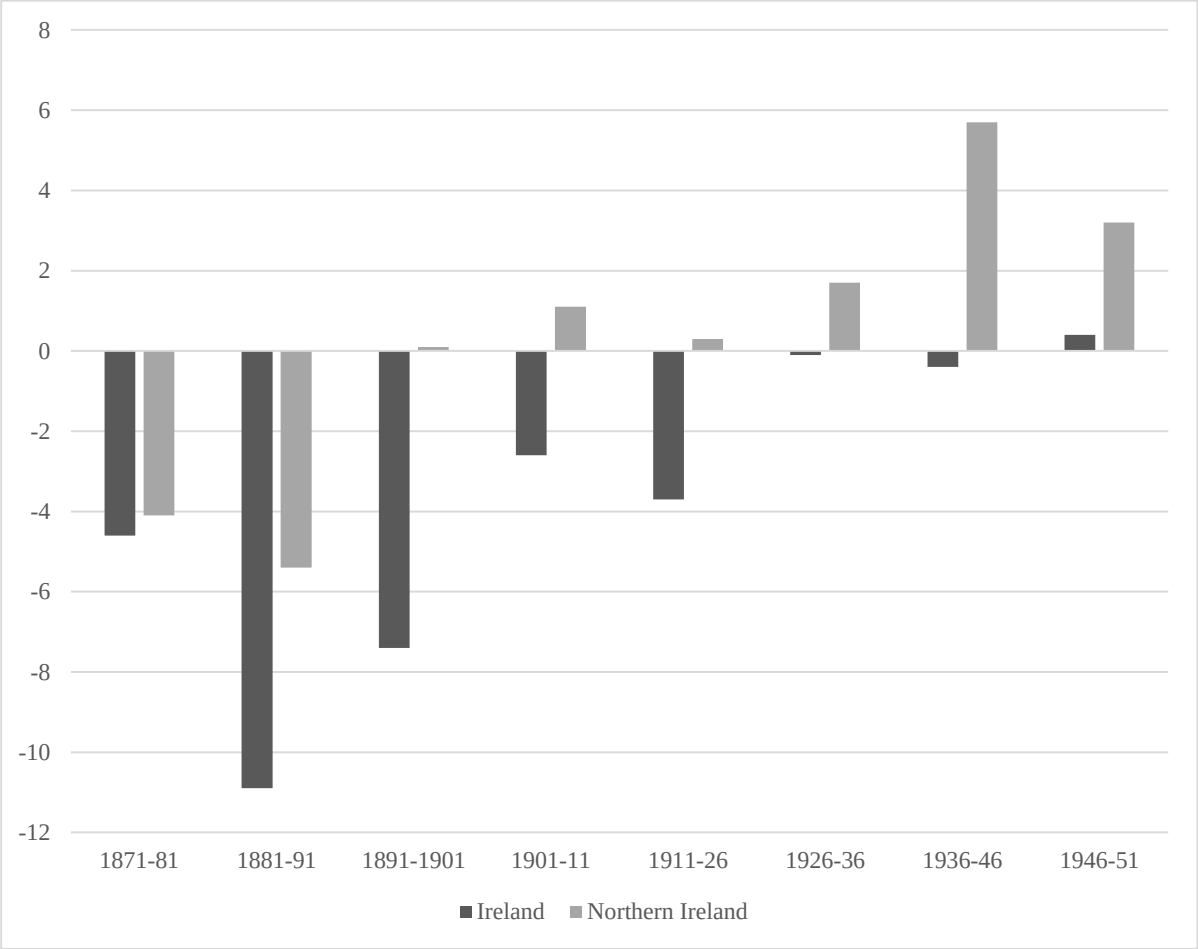
agricultural sector, which amounted to approximately half of Ireland's male labour force during this period, and by extension whether or not delayed and non-marriage can be said to have created a stable demographic equilibrium from which rural Ireland could develop in the second half of the century. If a recovery in marrriage rates within agriculture cannot be observed, then the most plausible alternative is that Irish marriage rates recovered not because of a recovery in agriculture, but rather the inverse: changes in the composition of the labour force leading to a decline in the importance of the rural economy.

To the extent that this thesis is a quantitative study, it will be limited to studying marriage rates for men, because the occupational categories for women in censuses of this period were wholly inadequate for properly capturing their economic status. That women engaged in strenuous labour on the land is undoubtedly true: research by the Department of Irish Folklore at University College Dublin in the 1950s illustrated that women engaged in all manner of manual work, from binding oats to stacking corn and drawing seaweed. Milking cows was also an important part of the work of women in agricultural areas, though that declined in the late nineteenth century with the establishment of co-operative creameries, which were staffed largely by men. This work was poorly reflected in censuses conducted while Ireland was part of the United Kingdom. (Cullen Owens, 2005) This study is also limited by the lack of detail in marriage certificates issued in Ireland at this time, which did not list the age of either partner. (Department of Social Welfare, 1955)

When the first census of the Irish Free State was carried out in 1926, a category was created for farmers' daughters and other female relatives working on the land, but there was no category for farmers' wives, who were instead included in the rather vague category of those "engaged in home duties". These definitions had a real impact on the aggregate findings from the census: in 1926 it was found that 109,000 women worked in agriculture, but the following year a Census of Agriculture carried out by Free State government found that there were actually more than 263,000 women working in this sector, a figure which was probably more accurate. It is extremely likely that unfavourable economic conditions induced women to delay marriage just as much as they induced them to emigrate, and this must have been very significant in view of the fact that women made up the majority of emigrants from Ireland for most of the period between the Great Famine and the outbreak of the Second World War. (Cullen Owens, 2005) It is unfortunate, therefore, that the data is insufficient to allow for an in-depth quantitative study.

This thesis will be focused on the period between 1926 and 1951, for two major reasons. Firstly, the relationship between social status and marriage patterns has already been studied for census years up to 1911, the last UK census to include Ireland, using collected manuscript data. This research, carried out separately by Tim Guinnane and David Fitzpatrick, found that small farmers were in fact more likely to marry than larger farmers. (Guinnane, 1997; Daly, 2006) Other research from Cormac Ó Gráda and Niall Duffy, has used similar manuscript data to measure fertility control early in marriage in rural and urban parts of Ireland, while also comparing regions that were predominantly Catholic with those that were mostly Protestant. They found that fertility differences between religious groups were modest and generally dependent on region. (Ó Gráda & Duffy, 1995) Using census data from 1926 onward, however, negates the need for this kind of manuscript work, because there is more detailed aggregate data dealing with the relationship between marital status and occupation.

Figure 1.1: Change in population per 1,000 inhabitants in the two jurisdictions on the island of Ireland, 1871-1951



(Source: Department of Social Welfare, 1955, p. 20)

This period is also important in its own right, because it represents what is regarded by various scholars as the start a turning point in the development of rural Ireland, as well as a turning point for marriage rates. While the farming population had been declining since the Famine, the end of the Second World War saw a decisive break in the continuity and social structure of rural communities. (Hannan & Katsiaouni, 1977) Scheper-Hughes identifies the early 1940s as the approximate time at which the three-generational stem family ceased to be predominant, and it is in this period that Hugh Brody suggests that a sense of relative deprivation became established in the minds of those living in rural areas, and what he calls a "rejection of rural life" began in earnest. (Scheper-Hughes, 2001; Brody, 1973, p. 90) Examining this era, therefore, can illuminate our understanding of how family structures change over time, with reference to theories of social change.

1.4 Outline of the thesis

Chapter 2 of this thesis seeks to situate Irish marriage patterns in the early twentieth century within their wider theoretical context – not only in terms of marriage patterns in pre-industrial Europe, but also the various theories specific to Ireland that have been put forward by scholars to explain delayed and non-marriage as it manifested itself in the century after the Famine. Chapter 3 will examine the census data that will be used to help answer the research question. Panel data like this can illuminate historical demographic trends, but also has drawbacks which will be examined in detail. Additionally, Chapter 3 will look at the potential weaknesses within these specific datasets, when it comes to establishing broad the socioeconomic features of Irish marriage patterns in this period. Chapter 4 will outline and interpret my findings and discuss the potential implications of these findings. Chapter 5 will discuss the wider importance of the results, and will outline the scope for further study in this area.

The theoretical framework of this thesis is grounded heavily in the idea of the Western European Marriage Pattern (WEMP), a phenomenon observed by John Hajnal in the 1960s which has been elaborated upon by other scholars since then. (Hajnal, 1965) More specifically, the thesis seeks to examine Irish marriage patterns in the light of more recent scholarship debating whether or not the WEMP encouraged economic growth and development. One aspect of what might be described as the WEMP-positive view is the idea that delayed marriage gave younger people, and younger women in particular, more economic power, and that this facilitated investment in human capital which fostered economic growth later on. (De Moor & van Zanden, 2010; Voigtländer & Voth, 2006) Other scholars have disagreed with this view, suggesting that Europe cannot be divided neatly into the zones outlined by Hajnal, and that regions with the lowest propensity towards marriage were generally among the poorest. In this sense, the WEMP may have held back many regions economically, especially in its "purest" form. (Dennison & Ogilvie, 2014)

This presents us with a number of questions in relation to Irish marriage patterns. To what extent does marriage in Ireland fit comfortably into the idea of the Western European Marriage Pattern? Guinnane (1997) regards Ireland as an extreme version of the WEMP; other scholars suggest that Irish marriage patterns were a distorted version, or a version with uniquely Irish characteristics. (Harman Akenson, 1988; Rothenbacher, 2002) Hajnal himself, however, included Ireland in the WEMP without qualification. (Hajnal, 1965) It is clear that there are unique features, such as the stem-family system outlined in the introduction, but does it go beyond that? Various scholars have discussed the potential relationship between marriage patterns and issues like religious belief and emigration – these will also be elaborated on in Chapter 2.

A cursory examination of the many anthropological studies that have been carried out in rural Ireland during the mid-twentieth century suggests that this was not a period of progress for the agricultural economy in Ireland. There was technological change, especially during the years immediately following the end of the Second World War, but it seems unlikely that overall increases in the marriage rate in Ireland during this period came as a consequence of

rising rural prosperity. Indeed, if anything it appears that movement away from the countryside might even have accelerated. This means, potentially, that much of the change in marriage rates seen during this period may actually be a consequence of the changing composition of the labour force.

My expectation is that the results of this study will show that those who did not own land, and who did not have a realistic chance of ever securing access to the means of establishing an independent household, were far less likely to marry than who had the means to do so. This is something of a truism – people with the means to marry are more likely to do so, in the same way that an individual with great wealth is more likely to own a luxury car than someone without. What is more important here is the scale of the difference between marriage patterns for those with the means and those without. I expect that the results will underline how the decision to marry in Ireland even as late as the middle of the twentieth century was an intensely economic one. I expect that upon decomposing the changes in the percentage of the population married the results will show that changes in the composition of the population played a substantial role, especially at times when marriage rates were increasing.

The conclusion that could be drawn from these results, then, is that delayed marriage and non-marriage, while probably necessary in a microeconomic sense, produced few benefits for the overall rural economy in Ireland. When Irish marriage rates did recover, it was most likely a consequence of a flight from the land – to industrial jobs in urban areas of Ireland and overseas – driven by the rising expectations of a burgeoning consumer society. Indeed, it could be that the intensely rational and upwardly mobile nature of the rural economy sowed the seeds of its own destruction, as young people became acutely aware of how much poorer off they were on the land. All of this is important in a wider sense because it suggests that while good demographic policy can certainly contribute to economic success, prosperity is far more likely to produce economically productive demographic trends than the other way around.

2 Theory and previous research

2.1 The economics of marriage

The idea of marriage as an economic institution has found favour among scholars for more than a century. In the nineteenth century, Friedrich Engels outlined his view of the development of monogamous marriage in ancient Greece, suggesting that marriage represented the victory of privately owned property over shared wealth, and that the purpose of marriage was to enforce the dominance of the male in the family, and to secure inheritance for heirs that were indisputably his own. Beyond that, Engels regarded marriage as a burden: an unavoidable social convention that propagated antagonism between men and women. (Engels, 1884) More recent scholarship has looked at the economic benefits of marriage, as well as the factors that contribute to the decision to marry.

Very simply, the purpose of marriage is to combine production and consumption into a single unit. Included it in this are the production and raising of children, and the production and consumption of non-tangible goods like companionship. The primary material benefits of marriage include the sharing of public goods, like a home, and children; the division of labour, such that one partner works in the labour market and the other works at home; the co-ordination of investment, so that for example one partner can study while the other works; risk pooling; and the co-ordination of childcare. Although all of these factors have existed to varying degrees historically, only the first two can be regarded as essentially timeless, and would have been major factors in the period under study. That said, none of the benefits of marriage outlined here are inherent to the traditional marriage institution; part of the popularity of marriage is that it economises on search costs and those associated with monitoring. (Browning et al., 2014)

It was the work of Jacob Mincer and Gary Becker in the 1960s that brought the economics of marriage to the forefront of the research debate. Their theories, known generally as the New Home Economics, posited that marriage, like all commercial transactions, had a price, whether it be in foregone earnings, or lost time. Becker argued from the premise that marriage, as a voluntary contract, was subject to the same kind of preference regime that governed other economic decisions; and that those who choose to marry a particular individual must derive greater utility from doing so than they would have had they remained single. The primary factors which determine the gains from marriage are the relative difference in the wage rates of the couple, and the level of what Becker describes as “non-market-productivity-augmenting variables”, like education or beauty. Becker notes that in arranged marriage situations, the parents are influenced by similar preference factors. (Becker, 1974)

In his *Treatise on the Family*, Becker singles out "Irish family patterns" as an exception to his own theories of the economic causes of marriage, suggesting that in Ireland religious restrictions on the availability of birth control were the cause of delayed marriage with high marital fertility. (Becker, 1981) As we shall see later in this chapter, religion does not fully – or even mostly – explain post-Famine marriage behaviour in Ireland, and economic considerations and preferences were important than they may have appeared at first.

Other scholarship has sought to apply game theoretical models to the marriage market. Manser and Brown invoke a two-person world, in which the couple have a choice to marry or not. In their view, the marriage bargain can be seen as a nonzero sum game, in which the couple may adopt a co-operative approach. This is predicated on the assumption that the couple know each other well enough to establish with some accuracy the utility they would derive from marrying. Of course, in the real world we have a multi-person world with imperfect information; in particular, individuals choosing to marry do not fully know the alternatives that are available to them. Manser and Brown argue that an exogenous reduction in household income which is not available to either spouse if single will reduce the likelihood of a bargain. (Manser & Brown, 1980) Oppenheimer (1988) notes that the transition into a stable career is a key determining factor of the age at marriage, and that sex-differentiated career paths could then be seen as a factor in gender disparities in the age at marriage. Oppenheimer suggests that the economic prospects of young males are perhaps the most important factor.

The gains from marriage in the period under study would have been substantial and real – particularly in view of the scope for labour specialisation between the two partners, which would have been greater than it is today. We must, therefore, consider that the disincentives to marry in an Irish context must have been rather powerful. The remainder of this chapter will discuss the most prevalent views of agricultural marriage in Europe in the pre-industrial period, and their potential economic effects. It will then examine how the observed patterns in Europe compared with those in Ireland, and what this might imply for our empirical study.

2.2 The Western European Marriage Pattern

To understand the Western European Marriage pattern first requires us to examine the work of Thomas Robert Malthus. Delayed marriage is one manifestation of the "preventative checks" that Malthus suggested would counteract reduced living standards brought about by overpopulation. (Malthus, 1798) Building on these theories, John Hajnal posited the idea of the Western European Marriage Pattern in 1965, observing that the distinctive features of this pattern were high age at marriage, and a high proportion of people who never marry at all. This pattern, according to Hajnal, was unique in the world, and applied to all of Europe west of an imaginary line – subsequently known as the "Hajnal line" – running from St Petersburg to Trieste. It was also common to both sexes, though Hajnal suggested that non-marriage was more prevalent among women. This pattern contradicted the common wisdom that urban-industrial societies were characterised by late marriage while agricultural ones had earlier marriage. Considering this tendency more deeply, Hajnal suggests that there must have been

an economic basis for this marriage pattern, noting that marriage almost inevitably requires the capacity to establish an independent household. He suggests that there is a link between household structure and the marriage pattern, and conversely that the marriage pattern influences the wider economic system. (Hajnal, 1965) Hajnal's later work on pre-industrial household formation discussed outlined the simple formation system of northwestern Europe, to which Ireland largely conformed. In this system, marriage was relatively late, the husband became head of the household after marriage, and a tradition of servant work was established for young unmarried people. (Hajnal, 1982)

Hajnal avoided making any firm judgements about the relationship between economic growth and delayed marriage, noting that "if late marriage brings about wealth, wealth may equally cause late marriage"; indeed, beyond examining the WEMP as an empirical phenomenon, scholarship went little further than speculating about its potential economic benefits. (Hajnal, 1965, p. 133; Dennison & Ogilvie, 2014) Though it was not accepted in all of its detail, Hajnal's scholarship became a natural starting point for scholarship in this area. Much of this scholarship has emphasised the need for economic self-sufficiency, and how postponing marriage allowed young people to wait until suitable capital, in the form of land or savings, became available, as well as allowing them to gain experience in the labour market. (Wall, 1998; Dribe & Lundh, 2014)

A number of criticisms of Hajnal's theory have been advanced. For example, delayed marriage is observed in cases where the Malthusian constraints do not appear to apply. In urban areas, where Malthus had feared that individuals freed from the need to acquire land would have very large families, we do not see earlier marriage. The relationship between social class and delayed marriage does not appear to conform to predictable Malthusian patterns either. (Alter, 1991) In addition, some scholars tie the development of the WEMP to the prevalence of the nuclear family, and to the development of an economy in which young people were sent to live and work in another household, filling in gaps in the labour market and allowing adolescents to gain experience. (Laslett, 1977)

It is only in the last decade or so that scholars have begun to consider a potential link between the WEMP and economic growth. In their paper, 'Girl Power', Tine de Moor and Jan Luiten van Zanden (2010) suggested that the development of the WEMP was encouraged by religious teachings and inheritance patterns, which encouraged men and women to make independent decision about when and whom they wished to marry. With reference to the experience of the North Sea region in the late medieval and early modern period, they argued that the emergence of the WEMP dramatically changed inheritance patterns, offering young people greater opportunities to develop their human capital. To the extent that delayed marriage was a mechanism for limiting fertility, it can also be seen as a strategy for investing in the quality, rather than the quantity, of children, and this brings it into contact with Gary Becker's aforementioned theory of New Home Economics. (Becker, 1973; de Moor & van Zanden, 2010)

Later scholarship built on these ideas. Foreman-Peck (2011) agreed with the idea that delayed marriage aided investment in child quality, and suggested that the greater scope for investment in human capital afforded by delayed marriage would have a reinforcing effect, which could potentially be observed through greater literacy, and would likely be passed on to

future generations through broader learning. Looking at nineteenth century Europe, he found clear associations between literacy and fertility on one side and female ages at marriage on the other. Women who married earlier were more likely to have more children and were less literate, reinforcing the view that delayed marriage in western Europe had allowed for the accelerated accumulation of human capital. (Foreman-Peck, 2011) Likewise, Voigtländer and Voth (2013) noted the benefits of the WEMP for women, for whom a new world of work in animal husbandry was opened. This combination of changed work habits and reduced population pressure served to keep wages high in western Europe after the Black Death, which facilitated the transition to self-sustaining economic growth – in effect, laying the foundations for Europe's industrialisation. (Acemoglu & Zilibotti, 1997; Greif, 2006; Voigtländer & Voth, 2013)

Tracy Dennison and Sheilagh Ogilvie (2014) sought to revise this very positive view of the WEMP. Their research found that difference in female marriage age across Europe went beyond that which could be explained with reference to Hajnal's lines. They also disputed the view that England and the Low Countries, the two European countries that were perhaps the most successful in the early modern period, had experienced the "purest" form of the WEMP. They found that English marriage patterns were in fact moderate by European standards, and that of the eleven countries that experienced higher marriage ages than England only the Netherlands experienced faster growth. They also found that a wide variety of countries, many of them outside of Hajnal's western European region, experienced low levels of household complexity, and conversely, northern Italy appeared to combine high levels of household complexity with high economic growth. Their conclusion was that the WEMP was not significantly associated with economic growth, and indeed that the "purest" forms of the pattern were associated with stagnation. (Dennison & Ogilvie, 2014) De Moor, van Zanden et al. (2015) responded to these findings by arguing that we should not expect to find a clear link between economic growth and delayed marriage, and that instead we should view delayed marriage as an indicator of female-friendly family patterns, which they posit are conducive to economic growth. (De Moor, van Zanden, et al., 2015)

2.3 Ireland and the WEMP

To what extent, then, did marriage patterns in Ireland conform to the WEMP? K.H. Connell argued that average age at marriage declined significantly towards the end of the eighteenth century, and this led to a dramatic rise in population. Drake (1963) argued, with reference to the aggregate findings of the 1841 Census, that the average age at marriage was later than originally believed, and argued that age at marriage for men was not necessarily linked to that of their wives; this contrasted with the prior consensus, which had been reached largely with reference to the reports of the Poor Inquiry of 1836. Lee (1968) disagreed with this conclusion, suggesting that a key factor in the declining age at marriage in Ireland in the decades leading up to the Famine was the rising share of the population in the "labouring class", which stood at 55 per cent in 1841, but then declined to just a quarter of a smaller population by 1881. (Lee, 1968)

The effect of the Famine on Irish demography can be seen as a parallel to that of the Black Death across Europe in apparently instigating the move towards later marriage. It had always been the case that young people would only marry when they had adequate land available to support a new family; what changed with the failure of the potato crop was that Irish peasants came to reject the tiny holdings which had become common in the decades leading up to the Famine, and which had allowed for common and uncommonly young marriage. (Connell, 1957) This contributed to what is known as the "standard of living" thesis explaining delayed marriage in Ireland. It was argued that the Famine had taught Irish people the dangers of overpopulation, and so they delayed marriage, in some cases indefinitely, in order to act as a check on the rapid growth of the population. (Hannan, 2015) This is supported by Walsh's study of marriage and fertility in the final decades of the nineteenth century, in which he concluded that a decline in marriage rates in the western half of Ireland during this period was a consequence of higher population pressure in these regions, as increases in farm size in the east were not matched in the west, as well as the agricultural depression of the 1880s. (Walsh, 1970)

This hypothesis is contradicted by much of what happened in the decades after the Famine, however. The WEMP is grounded in Malthusian ideas of a relationship between income and fertility, but wages rose in Ireland over the second half of the nineteenth century, yet marriage rates continued to stagnate. (Guinnane, 1997) It is generally believed that delayed marriage in Ireland was closely related to the issue of emigration; Kennedy (1973) argued that one probable cause of delayed marriage was the desire of young people to keep their options open when it came to migration, and a belief that the risks of moving abroad could not easily be borne by an individual after marriage. In this sense delayed marriage and emigration both point towards a rising level of aspiration for young people at this time. It could then be argued that those of higher perceived social standing would have changed their own habits, in order to retain their social advantage. Guinnane (1997) questioned this view, arguing that delayed marriage was a poor substitute for emigration, and that those who were inclined to emigrate, who were hearing stories of great prosperity and opportunity abroad, were hardly likely to respond to these incentives by remaining in a lifestyle that offered little hope for the future.

In their seminal study of English population history, Wrigley and Schofield (1981) stressed the importance of short-term economic fluctuations over the decision to marry and the timing of marriage in an early modern setting. They noted that if young people wished to live no less well than their parents, they would be required to delay marriage or forego it altogether in times of economic difficulty. Of course, marriage is a long-term decision, and young people did not know what their prospects would be in the distant future, nor were they fully aware of wage trends – but Wrigley and Schofield argued that the impact of changing real wages could produce changes in behaviour similar to those that would be brought about by conscious calculation. Like Ireland, England experienced a combination of rising age at marriage (though not nearly as steeply) and rising incomes during the second half of the nineteenth century, seeming to represent a break with past trends, though this may be a misleading picture in view of the much higher rates of emigration prevailing in Ireland at this time.

It must then be considered that the reasons for delayed marriage in Ireland after the Famine went beyond material aspiration. But it seems unlikely that the reasons were cultural: the Harvard Irish Study found that the attitude of country people towards what were regarded as

“incomplete” families was one of pity, and a sense that they were departures from the norm. (Arensberg & Kimball, 2001) Religion, too, is unlikely to have been a major factor. Though the influence of the Catholic Church in Ireland grew steadily after the establishment of Maynooth College in 1798, the association between the incidence of Catholic clergy and marriage rates was weak. (Walsh, 1970) Kennedy (1973) argued that the character of Irish Catholicism, which was seen to glorify clerical celibacy, was a consequence, not a cause, of low marriage rates in Ireland; and, nevertheless, the link between Catholicism and marriage rates could not be measured statistically. Indeed, the evidence suggests that incidence of delayed marriage was broadly similar for Protestant communities as it was for Catholics. (Guinnane, 1997) Evidence of a cultural reluctance to marry is present, however: there is evidence as late as the 1950s that rural transplants in Dublin had lower marriage rates than natives, and there is evidence of persistent delayed marriage among the Irish who emigrated to Britain and the United States. (Schellenberg, 1991; Connolly, 2015)

2.4 Inheritance patterns and family systems

The link between the macroeconomic and cultural explanation for delayed marriage lies in the “stem-family hypothesis”. This system involved multiple generations of a family living on a single farm, and derived from the pressing need to keep family farms intact in the decades after the Famine; from the need to avoid starvation, rather than a desire to maintain living standards. (Connolly, 2015) The stem family represents a stark contrast with the “pure” forms of the WEMP described by Dennison and Ogilvie, in which nuclear families were a strong norm. Young people within stem families were impacted by different social and economic forces: on one side, the desire for a better standard of living, and the natural desire to marry; on the other, a sense of responsibility towards their siblings remaining on the farm. The Harvard study features two clear examples of this in County Clare in the 1930s:

“In the first case, two brothers and four sisters occupied a small holding of twenty-three acres and a four-room house for over fifty years. Several of them at various times had tried to break away; in fact, two brothers did, but the ones who stayed gave as their reason first that they hadn’t wanted to leave the old people and afterwards that none of them wanted to be ‘the first to leave’. The second case was very similar. Two brothers and a sister had stayed on to work a small farm for their parents, but, when the old couple died, none of them wanted to leave and each felt too old for marriage.” (Arensberg & Kimball, 2001, p. 62)

Peasant marriage in Ireland in the century after the Famine was an intensely economic decision, tied closely to issues of land ownership. Land inheritance in Ireland during this period was described simply in the common saying: “One for the farm, the rest for the road”. (Kennedy, 1991) It would not have been uncommon for husbands and wives to meet for the first time on their wedding day, and any prior meetings are likely to have been held formally and in the company of parents. Besides the production of children, the purpose of marriage was largely to ensure an adequate supply of labour on the land. This meant that the timing of a man’s marriage was often determined almost exclusively by the need of his household for labour. (Connell, 1962) Another key feature of peasant marriage was the dowry: a payment

from the family of the bride to that of the groom at the time of marriage. The amount of the dowry was linked to three major factors: the social status of the families involved, the personal qualities of the couple, and the desirability of the land on which they were to live. The amounts of money involved in the dowry were substantial – as much as the equivalent of a decade's rent, meaning that in many cases the dowry was the costliest commitment a family would make in each generation. Although there were many beneficiaries of the dowry, its main purpose was to provide for the brothers and sisters of the groom. (Connell, 1962)

Other agricultural countries, however, despite facing similar issues of inheritance to Ireland, did not see the same trend towards delayed marriage and lifetime celibacy. While posted as ambassador to France in the 1950s, Con Cremin sought to compare habits within the two countries, and reported that the absence of a rural marriage problem in France was a consequence of the deliberate limitation of families in France, and also the fact that the qualifying age for an old-age pension in France was sixty-five compared with seventy in Ireland, which provided a greater incentive for older farmers to allow their children to inherit. Succession was also poorly regulated in Ireland, and combined with the lack of alternative opportunities for employment all of these factors combined to give parents considerable control over the marital behaviour of their children. (Daly, 2006) Another important factor was endogamy and hypergamy: farmers were determined to have their children marry those of a higher economic and social standing to themselves, and this is likely to have made successful "matches" less common; this was also a feature of marriage patterns in other parts of Europe. (Arensberg & Kimball, 2001; Dribe & Lundh, 2014)

Conrad T. Arensberg and Solon T. Kimball, anthropological researchers from Harvard University, conducted what generally came to be regarded as the touchstone of rural anthropology in Ireland. Their studies in County Clare in the mid-1930s led to the publication of a book, *Family and Community in Ireland*, which went some way towards illustrating the microdemographic and microeconomic causes of Ireland's unusual marriage pattern. Arensberg and Kimball painted a picture of a highly patriarchal society, in which farms and families were under the absolute control of a male household head, and in which family ties were sufficiently strong as to outweigh the incentive to marry and leave home in many cases. Their research also supported the view that the reluctance of parents to bequeath land and the lateness of Ireland's pension age contributed to higher than average ages at marriage. (Arensberg & Kimball, 2001) Their depiction of what Damian Hannan came to describe as the "traditional" peasant model, while largely accurate, was criticised by subsequent scholars for providing too positive an image of life in rural Ireland at this time, and for exaggerating the level of stability that had characterised Irish peasant society since the Famine. (Hannan & Katsiaouni, 1977; Daly, 2006) Later research initiatives like those of Nancy Scheper-Hughes and Hugh Brody in the 1970s, conducted at a time when the "traditional" model was giving way to the "urban" nuclear family, painted a much more dismal picture of rural life, noting the intense family conflict which developed over questions of marriage and succession, and the effect that loneliness had on the mental health of individuals left behind. (Hannan & Katsiaouni, 1977; Scheper-Hughes, 2001) In particular, Hugh Brody noted the disdain with which young women had come to view farming life and their waning sense of duty towards it; by the 1970s, he wrote, "the prospect of marriage in the countryside [was] too absurd to consider." (Brody, 1973, p. 129)

This provides us with another major point of departure from the WEMP as defined by De Moor and van Zanden, among others. It is generally argued that the WEMP afforded greater power to young people to chart their own course in life, but the stem-family system produced families that were highly patriarchal. Marriages most commonly took place in winter, because that was the time at which the bride's father was best able to calculate a dowry based on the year's produce. (Brody, 1973) Kennedy (1991) tells the story of a farmer in County Limerick in 1927, whose decision to bequeath his farm to his engaged son took place as part of a complex web of economic interactions: the land itself changed hands, and there was a dowry of £600 brought into the household by his son's new wife. There was also an annuity to be paid to the father for the remainder of his natural life, which he would spend on the same land as his son – and an annuity and right of co-residence on the farm for the son's remaining sister. This was, in the author's words, "a stem family household in the process of formation". (Kennedy, 1991, p. 482) Indeed, the intensely patriarchal nature of the "match" was undoubtedly an incentive for young women to emigrate: one woman born in Limerick in 1858 recalled: "In those days young girls had nothing to look forward to but a loveless marriage, hard work, poverty, a large family and often a husband who drank. Small wonder that when they could they escaped to America." (Guinnane, 1997, p. 236)

2.5 Summary and conclusion

The period under study in this thesis, then, can be seen as representing the beginning of the transition between the "traditional" model observed by Arensberg and Kimball and the "urban" one that prevails today. It was a period in which the rights of women were being pared back; Linda Connolly suggests that full adult suffrage in 1922 was the last piece of progressive legislation affecting women for many years. In this period, among other things, women's participation in the labour market and jury service were restricted. (Connolly, 2015) Contemporary observers regarded Ireland's marriage pattern as a serious problem, though a less urgent one than emigration. At a meeting of the Statistical and Social Inquiry Society in Dublin in 1933, James Meenan suggested that low marriage rates were the consequence of late entrance into gainful occupations, lack of female employment, and low mortality among older people. (*Irish Independent*, 21 Jan 1933, p. 8) Inheritance was also seen as a factor, so much so that the Taoiseach, Éamon de Valera, proposed a scheme of "dower houses" to house older family members, thereby making it easier for younger people to set up independent households. (Ó Gráda, 1997) The activities of the Land Commission played a significant role as well; set up to manage the distribution of farmland, the Commission maintained a much larger number of small farms than was economic, largely for political reasons. By the end of the Second World War, however, it was believed that the future of Irish agriculture was bright: a scarcity of food in Europe and shortage of dollars meant that it would be cheaper for European countries to import food from Ireland than from the United States. (Daly, 2006)

The relationship between the WEMP and Irish marriage patterns in the century after the Famine was a complicated one. Like the WEMP, its origins appear to lie in a major Malthusian shock, and the desire of individuals to restore their living standards in the aftermath. As in medieval Europe, those habits persisted long after living standards had

returned to their prior state, and indeed exceeded them. However, there are substantial differences: Irish family patterns show a high level of complexity that is out of step with traditional notions of the WEMP, and there is clearly no question of Irish marriage patterns affording young people greater choice over their own life paths. It may then be more accurate to speak of a Western European Marriage Pattern with Irish Characteristics. It is clear that in addition to the reluctance to marry that can be explained by the "standard-of-living hypothesis", the changing institutional structure of marriage in Ireland at this time also made marriage more difficult and less desirable for young people, and encouraged them to seek alternatives, including through emigration. (Guinnane, 1997)

To the extent that this is the case, then, we can conclude that Ireland, like many other European countries, reached the status of a late-marrying country through mechanisms that were unique to its own circumstances. This means that while a link between economic growth and the WEMP may exist, it is unlikely to be sustained in the face of the other, institutional factors that influenced propensity to marry, giving credence to Dennison and Ogilvie's view that marriage patterns alone cannot be used to explain economic growth. The theoretical framework of this study, therefore, is that there were powerful economic and social incentives to marry at all times during the period under study, but that they were in some sense counteracted by economic incentives not to: the desire to keep open the option of emigration; the need to ensure that land remained within a family; as well as a heightened awareness of the risks of marriage in a society that did not have legal divorce. We would expect all three of these factors to have weighed most heavily on individuals working in occupations that were more conducive to emigration and more closely tied to the land. Therefore, it seems reasonable to expect that rising marriage rates in the 1930s and 1940s were experienced mostly by individuals in other occupations. We would anticipate a divergence between rural and urban Ireland, not a convergence.

3 Empirical study

3.1 The censuses of 1926, 1936, 1946, and 1951

This thesis will examine Irish marriage patterns during this period by looking at the aggregated census returns of 1926, 1936, 1946 and 1951. These were the first four censuses carried out in Ireland after independence, and the first for which aggregate results were calculated by punch-hole card machines, meaning that the level of detail is considerably greater. Another significant change between the last UK census of 1911 and the first Irish one in 1926 was the change to subject volumes. Up to 1911 data for each province and county was published as separate volume; from 1926 onwards the data was published in volumes dealing with broader topics, such as conjugal status, literacy and industrial status. Studies of Irish marriage patterns before 1911 that used census data were generally carried out by creating samples from manuscript returns, but these two innovations mean that a proper cross-section can be created. In common with previous Irish censuses, these surveys were carried out in the spring, and were to be completed by the head of each household, and were to include every person in that household at midnight on the appointed date. They were then collected by members of the police force. In addition to questions about marital status, age, gender and occupation, the census included questions about dependent children, literacy and Irish language proficiency. (Department of Industry and Commerce, 1928; Central Statistics Office, 1949; Linehan, 1991) This thesis will focus on data relating to men between the ages of 20 and 54; the reasons for exclusively focusing on men were outlined in Chapter 1.

Of course, aggregate census data is not an ideal way to measure the changes in the average age at marriage, because census data does not tell us when an individual got married – indeed, data for individuals at older age group may refer to marriages that took place well before the time period under study. Nevertheless, such data is the best available, and will allow us to examine broad trends. Though there was a space for age on marriage certificates in Ireland during this period, what was recorded was usually simply “Full” – indicating that the individual had reached his or her twenty-first birthday. The Commission on Emigration recommended in its 1955 report that this practice be changed, and that precise ages at marriage be recorded, but this did not begin to occur until after the period under study. The Commission also conducted a small study to establish trends in age disparity, finding that the differences between age at marriage for individual husbands and wives was not as large as had been popularly believed, with half of marriages carried out in that year involving an age gap of less than five years, and eighty percent involving a gap of less than ten years. (Department of Social Welfare, 1955)

Although our data is online, it is only available in the form of scans of the original, paper contingency tables. Therefore, for use in this study, the data had to be converted into data

points that could be analysed by computer, using the variables outlined at the end of this section. Although the data was checked repeatedly, it is possible that small errors have been introduced in transcription, especially where the scanned figures were difficult to read. A more thorough transcription would allow for much more in-depth studies relating to marriage and other issues, but they go well beyond the scope of this thesis.

Table 3.1: Number of men in each relevant age group at each census, and average annual percentage change in population in this age group, 1926-1951

Age group	**Census year**			
	1926	1936	1946	1951
20-24	124,519	134,680 (+0.8%)	118,243 (-1.2%)	105,380 (-2.2%)
25-34	199,148	207,403 (+0.4%)	207,865 (+0.0%)	196,036 (-1.1%)
35-44	173,219	180,524 (+0.4%)	181,046 (+0.0%)	196,284 (+1.7%)
45-54	172,658	159,188 (-0.8%)	156,737 (-0.1%)	165,296 (+1.1%)
Total	669,544	681,795 (+0.2%)	663,891 (-0.3%)	662,996 (-0.0%)

(Source: Department of Industry and Commerce, 1930, pp. 10-37; Department of Industry and Commerce, 1941, pp. 10-34; Central Statistics Office, 1954a, pp. 10-39; Central Statistics Office, 1954c, pp. 10-52)

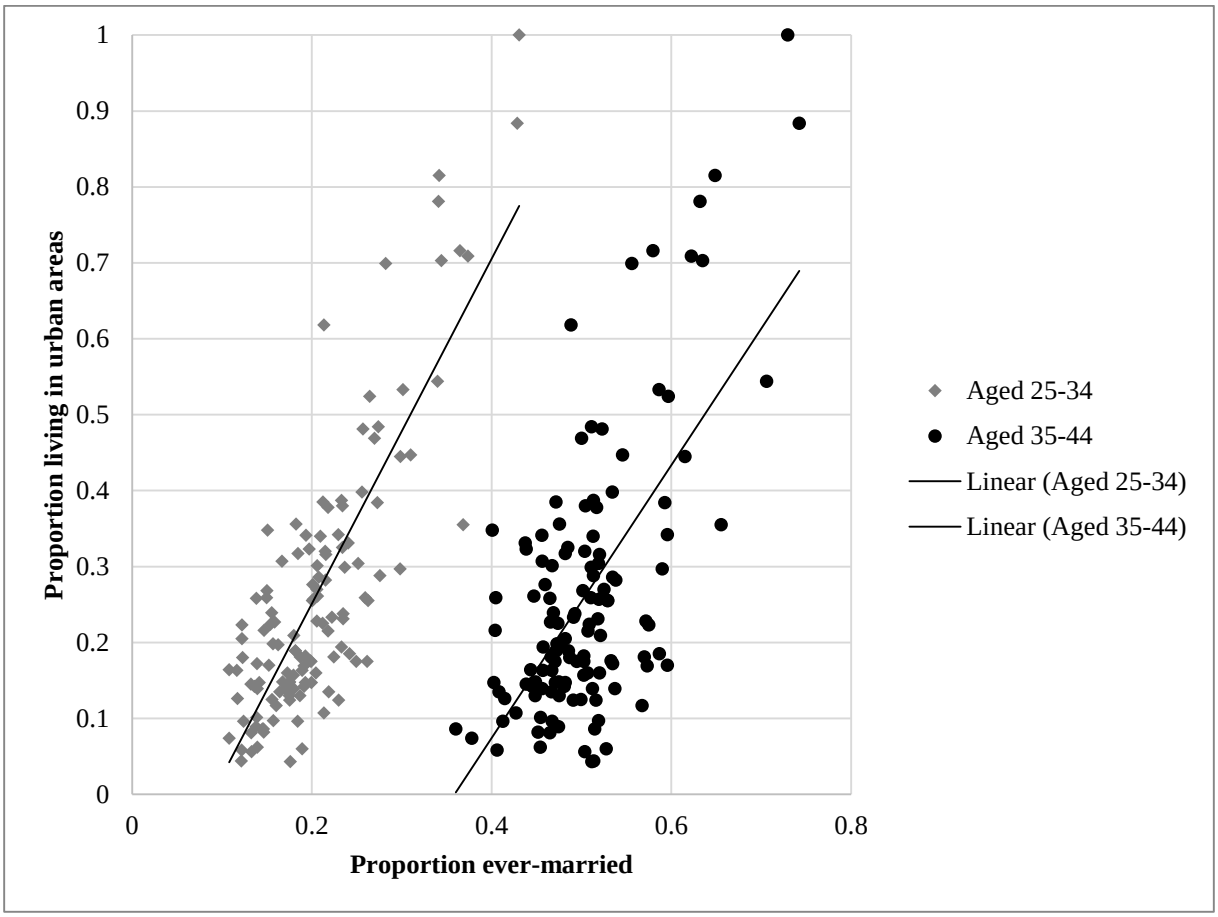
Table 3.2: Percentage of men ever-married in each age group, 1926-1951, and average annual percentage-point change in proportion married in each age group

Age group	**Census year**			
	1926	1936	1946	1951
20-24	4.0%	3.8% (-0.02)	5.1% (+0.13)	5.1% (+0.00)
25-34	28.2%	26.2% (-0.20)	27.6% (+0.14)	32.6% (+1.00)
35-44	55.1%	55.8% (-0.07)	57.0% (+0.12)	59.5% (+0.50)
45-54	68.6%	66.5% (-0.21)	68.8% (+0.23)	69.0% (+0.04)

(Source: Department of Industry and Commerce, 1930, pp. 10-37; Department of Industry and Commerce, 1941, pp. 10-34; Central Statistics Office, 1954a, pp. 10-39; Central Statistics Office, 1954c, pp. 10-52)

Another drawback to this data relates to the way the aggregate data was published. Unfortunately, age categories were changed from census year to census year, so this thesis will use the narrowest categories that can be applied to all four years: 20-24, 25-34, 35-44 and 45-54. We have coded these age groups as a categorical variable. Fortunately, occupational categories saw almost no change. In addition, while the 1926 census published conjugal status data organised by occupation and by county, the three subsequent census reports did not include national subdivisions in a way that could readily be used for this thesis. While there were geographical differences between marriage rates in different parts of the country, these numbers were broadly correlated with occupational structure, with industrial regions of the country showing higher marriage rates and younger ages at marriage, and rural areas demonstrating lower marriage rates and older ages at marriage.

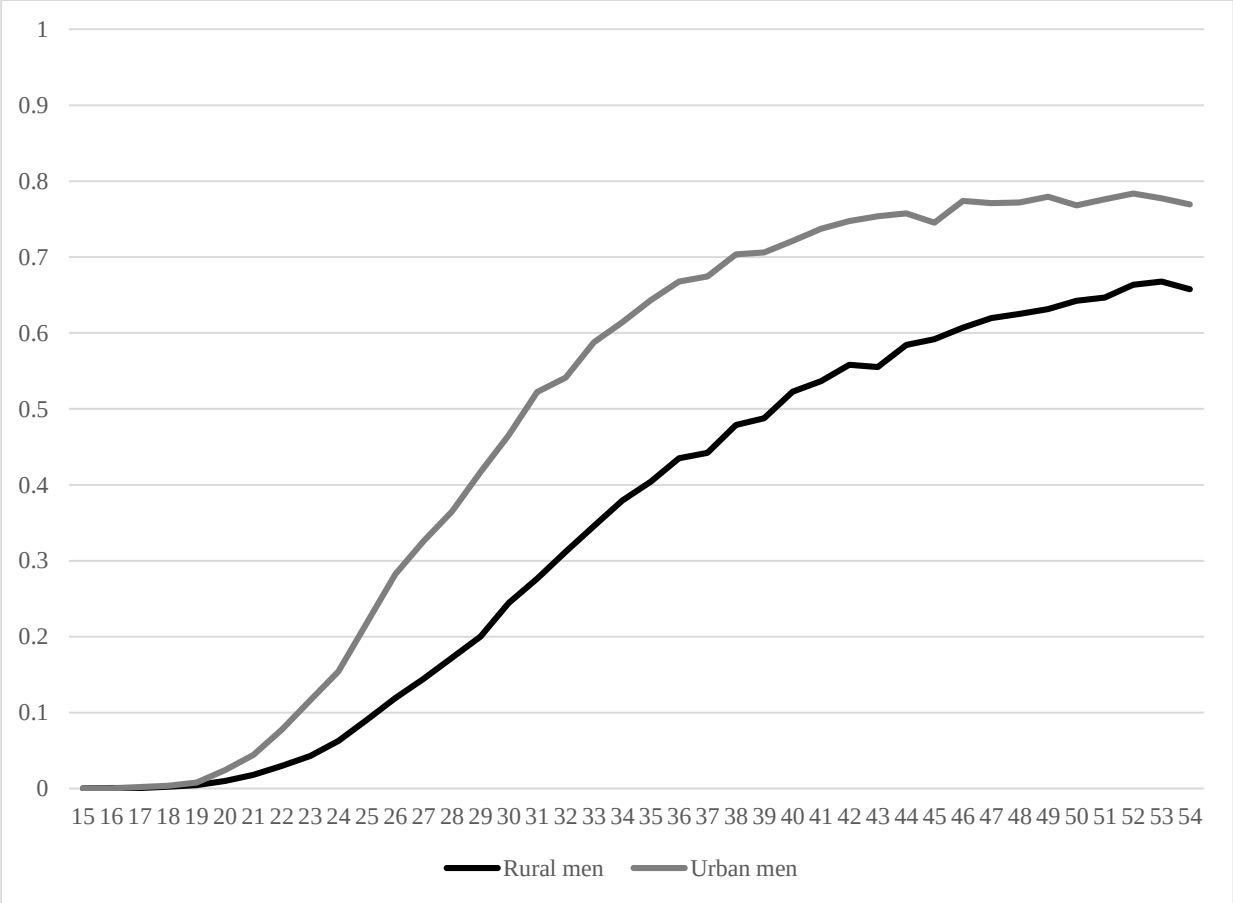
Figure 3.1: Relationship between urban living and marital status for men aged 25-44 across 127 superintendent registrar's districts, 1936



(Source: Department of Industry and Commerce, 1938, p. 30; Department of Industry and Commerce, 1941, pp. 144-163)

A simple analysis suggests that there is a strong relationship between delayed marriage and living in more rural areas, though the relationship becomes weaker at older age levels. This finding is verified by analysis of the proportion married at each age level, sorted by urban and rural dwellers.

Figure 3.2: Proportion of men ever-married at each age level nationally, 1936



(Source: Department of Industry and Commerce, 1939, pp. 44-47)

Note 1: *For this graph "urban" is defined as all individuals living in towns of 1,500 or more inhabitants, plus inhabitants of the seven smaller towns which possessed local government. "Rural" refers to individuals living in all other areas.*
Note 2: *A substantial number of individuals appear to have reported their age to the nearest five years, especially at older age levels. It is for this reason that there is a spike in the percentage single at ages 40, 45 and 50.*

For the purposes of this study, however, we will be not be using the marriage rate data, which is too simple to provide us with any great insights. Instead we will look at the marital status of the entire male population within our age groups of interest. To do this requires us to convert the aggregate data, which was published in the form of tables, into data points which can be analysed through a regression. Table 3.2 illustrates the changes in the proportion married over the period under study. We can see a consistent increase in the proportion married across all four age groups between 1936 and 1946, with a weighted average increase of 0.15 percentage points each year over this period, or an average 1.5 percentage point increase over the whole period. Between 1946 and 1951, the increase is bigger, but less evenly spread, confined largely to the 25-34 and 35-44 age groups. Nevertheless, the weighted average increase is 0.45 percentage points per year, or 2.25 percentage points over the five year period, suggesting that marriage rates are indeed accelerating over our final two intercensal periods.

We will also need to code the data to create broad occupational groups. The censuses under study here use thirty-one different occupational categories, but this is too many for the purposes of this study, and the differences between many of the categories are small. I have chosen to create six broad categories:

1. Farmers
2. Live-in agricultural labourers
3. Non-live-in agricultural labourers
4. Manufacturing and non-agricultural primary sector workers
5. All other workers
6. Not gainfully employed

A detailed outline of which occupations were included in each category is in Appendix B. Carmel Hannan's study (2014) uses similar categories when exploring non-marriage rates for Irish males in the twentieth century, though she creates more non-agricultural categories than I intend to use, because my thesis is based on the idea that it was agricultural marriage patterns that were the primary driver of delayed marriage in Ireland. I have opted to create two separate categories for landless agricultural labourers, one for those who lived on the land where they worked and one for those who did not. The majority of live-in agricultural labourers worked on farms owned by a family member, most often a father. Creating these two categories is necessary in light of the ample literature which suggests that delayed marriage was closely related to the inability of young people to form an independent household – we would, therefore, expect marriage rates for those living on farms owned by others to be much lower than those for individuals who lived elsewhere. The fifth category is a broad category taking in occupations that are less relevant to this study. At the beginning of the period under study, in 1926, the male labour force in these age groups was divided approximately equally between agriculture and all other occupations; by 1951 agriculture had become a minority.

Table 3.3: Composition of the male labour force between the ages of 20 and 54, 1926-1951

	1926	1936	1946	1951
Farmers	16.2%	14.4%	15.2%	15.0%
Live-in farm labourers	23.1%	22.2%	20.3%	17.0%
Non-live-in farm labourers	10.2%	10.6%	11.5%	9.1%
Manufacturing workers	17.1%	17.1%	16.3%	21.0%
All other workers	29.5%	32.1%	33.2%	34.7%
Not gainfully employed	3.9%	3.7%	3.5%	3.2%

(Source: Department of Industry and Commerce, 1930, pp. 10-37; Department of Industry and Commerce, 1941, pp. 10-34; Central Statistics Office, 1954a, pp. 10-39; Central Statistics Office, 1954c, pp. 10-52)

In summary, then, our variables are as follows:

Variable	**Definition**	**Sources**
Marital status	Dummy variable, where 0 indicates never married, and 1 indicates married or widowed	- 1926: Department of Industry and Commerce, 1930, pp. 10-37 - 1936: Department of Industry and Commerce, 1941, pp. 10-34 - 1946: Central Statistics Office, 1954a, pp. 10-39 - 1951: Central Statistics Office, 1954c, pp. 10-52
Year	Categorical variable, with four categories: - 1926 - 1936 - 1946 - 1951	
Age	Categorical variable, with four categores: - 20-24 - 25-34 - 35-44 - 45-54	
Occupational group	Categorical variable, with six categories - Farmers - Live-in farm labourers - Non-live-in farm labourers - Manufacturing workers - All other workers - Not gainfully employed	

3.2 Methods

The purpose of this thesis is to examine whether or not the early signs of recovery in marriage rates in Ireland beginning in the 1930s were seen across the labour market, and thereby determine whether the Western European Marriage Pattern with Irish Characteristics outlined in Chapter 2 could be described as economically successful or not.

To answer this question, I intend to first perform a regression with a linear probability model using the aggregated panel data from the four censuses already mentioned. Such a model is necessarily limited by the data available, though there is enough to gain a clear idea of the changing relationship between marriage patterns and the occupational structure of the population, and thereby answer the research question.

Our model is:

$$maritalstatus = \alpha + (\beta_1)agegroup + (\beta_2)year + (\beta_3)occgroup + (\beta_4)occgroup.year$$

This model will allow us to examine the changing relationship between the decision to marry and different occupational groups over time. Our model will, therefore, have marital status as dependent variable – this is a dummy variable with 1 indicating that the group is ever-married and 0 indicating that they are not. Using a dummy variable in this way makes sense because it ensures that our results are as precise as possible; if we were to use proportion ever-married in each group, there would be small errors due to rounding. Our dependent variable, therefore, is the binary variable of being ever-married, for each occupational group, in each age category, for each census year. Our independent variables are occupational category, census year and age group. Each of our groups is then weighted by the number of observations recorded in the census in question, meaning that our total number of observations is 2,679,026.

Our independent variables are quite self-explanatory: *age* denotes which age category the entry falls into; *occ* the occupational group; *year* denotes which census the finding is from; and *occyear* is a variable which interacts occupation with year, in order to account for any short term shifts within an occupational group.

For studies such as this, where our dependent variable is a dummy variable, a binomial logistic regression may also be performed, in which the results are interpreted in terms of odds-ratio. However, because the proportions-married in this particular study are generally neither extremely high or extremely low, it appears safe to assume a linear relationship. Therefore, due to its greater ease of interpretation, I decided to proceed with a linear probability model.

In addition to performing this regression, I intend to decompose the change in the proportion single in each age group, using a relatively simple method devised by Kitagawa (1955). This additional part will allow us to get some idea of how much of the change in the percentage single was a consequence of direct changes within each occupational group, and how much was a consequence of changes in the composition of the labour force. There is reason to

believe from the literature that compositional change was an important factor in the recovery in Ireland's marriage rates from the 1930s onwards.

The formula put forward by Kitagawa (1955) for data classified by only one factor (in this case occupation) is:

$$t. - T. = Gross\ I + Residual\ I$$

$$Gross\ I = \sum_i \frac{t_i + T_i}{2}\left(\frac{n_i}{n.} - \frac{N_i}{N.}\right)$$

$$Residual\ I = \sum_i \frac{\frac{n_i}{n.} + \frac{N_i}{N.}}{2}(t_i - T_i)$$

Where *i* is the classifying factor, *t* is the relevant rate and *n* the population. A capital letter indicates data at the beginning of the time period, while a period after a letter denotes the total. *Gross I* is the change that can be attributed to differences in the *I* composition of the population, while *Residual I* is the part attributable to changes in their *I*-specific rates.

In practice, what we are doing here is distilling the change in the proportion married in each age group by calculating first what the change would be had the occupation-specific rates been held constant at the average of the two rates, and only the composition of the labour force changed. Then we compute what the change would be the composition of the labour force been held constant at the average, and only the occupation-specific rates changed. These two results added together should give us our total change, with allowances for rounding.

4 Results

4.1 Regression results and interpretation

The full regression output is outlined in Appendix A. Our R-squared was 0.31, which seems reasonable for real-world data with such a large sample size (N = 2679026). The simplest way to interpret the regression output is to examine the data for 1926, and then the changes at each census year afterward. For 1926, then, our results are:

Table 4.1: Association between occupation and the probability of being married, adjusted for age, 1926

Occupational category	Proportion married relative to the reference category, adjusted for age
Farmers	0 (ref. cat.)
Live-in farm labourers	-0.4136***
Non-live-in farm labourers	-0.1217***
Manufacturing workers	-0.0425***
All other workers	-0.0785***
Not gainfully employed	-0.3152***

*** statistically significant at the 1% level

All of these figures are statistically significant at the 1% level from the reference category, and from each other. All of our occupational groups had a lower propensity to marry than our reference category, farmers. This is not surprising in light of our theoretical framework, which suggested that propensity to marry was closely tied to the issue of land ownership. As a consequence of land reform in the late nineteenth and early twentieth century, virtually all of the men in this category would have been landowners, and those who were not would have enjoyed considerable security in their tenure. (Guinnane & Miller, 1997) It is also not surprising that live-in farm workers, who more than any other group lacked the means to set up an independent household, were the least likely to be married by a considerable distance, though of course there is an element of selection here: ”farm servanthood” was often considered preparatory work for emigrants. (Breen, 1983)

The relatively low marriage rate for non-agricultural workers is surprising, considering their relatively high level of economic independence. This is probably a reflection of the fact that

many industrial workers were migrants who had moved from the countryside, and had brought social and cultural habits with them, including a lower propensity to marry. (Kennedy, 1973) Indeed, the lower marriage rate among non-agricultural workers compared to farmers seems to be evidence of some sort of lag between economic change and changes in the marriage rate, similar to that proposed by Wrigley and Schofield (1981). Economically, our two non-agricultural categories were arguably better placed than farmers to marry earlier, so we would expect the proportions ever-married in these groups to rise in the coming years.

Moving from 1926 to 1936, we obtain these results for our second census year:

Table 4.2: Association between occupation and the probability of being married, adjusted for age, 1936, with absolute change in probability of being married since 1926

Occupational category	Proportion married relative to the reference category, adjusted for age	Absolute change since 1926
Farmers	0 (ref. cat.)	-0.0441***
Live-in farm labourers	-0.3732***	-0.0036
Non-live-in farm labourers	-0.1241***	-0.0465***
Manufacturing workers	-0.0042	-0.0058
All other workers	-0.0308***	+0.0036
Not gainfully employed	-0.3137***	-0.0426***

* statistically significant at the 10% level
** statistically significant at the 5% level
*** statistically significant at the 1% level

Overall marriage rates declined in this period, and this is reflected in the data, in which no occupational group experiences a significant increase. What we can see clearly here is both an absolute and relative decline in the position of farmers. By 1936, the difference between our reference category and manufacturing workers is statistically insignificant, despite the latter group experiencing a statistically insignificant decline in its own absolute position in this time-period.

It is noteworthy that live-in farm labourers do not record the decline in marriage rates seen among other agricultural groups in this period. This may be a consequence of such labourers being insulated from the effects of the Depression because of their lack of economic independence, but is also likely a reflection of the fact that marriage rates among these labourers were already extremely low to begin with.

For 1936 to 1946 we see:

Table 4.3: Association between occupation and the probability of being married, adjusted for age, 1946, with absolute change in probability of being married since 1936

Occupational category	Proportion married relative to the reference category, adjusted for age	Absolute change since 1936
Farmers	0 (ref. cat.)	-0.0097*
Live-in farm labourers	-0.3652***	-0.0017
Non-live-in farm labourers	-0.0909***	+0.0234**
Manufacturing workers	+0.0238***	+0.0183**
All other workers	-0.0071*	+0.0281***
Not gainfully employed	-0.2823***	+0.0217**

* statistically significant at the 10% level
** statistically significant at the 5% level
*** statistically significant at the 1% level

Again, the overall upward trend in this period is clear, with no occupational group experiencing a statistically significant decline. What is noteworthy, however, is that the increase in marriage rates in this period is driven entirely by groups who are not linked inextricably to the land, indicating that the position of farmers had not improved. (It is worth recalling, too, that most live-in agricultural labourers were related by blood to the farmers they worked for.) By now, manufacturing workers have clearly overtaken farmers as the group most likely to be married, and the difference between farmers and our residual workers' category is now statistically insignificant.

For our final, five-year period, from 1946 to 1951:

Table 4.4: Association between occupation and the probability of being married, adjusted for age, 1951, with absolute change in probability of being married since 1946

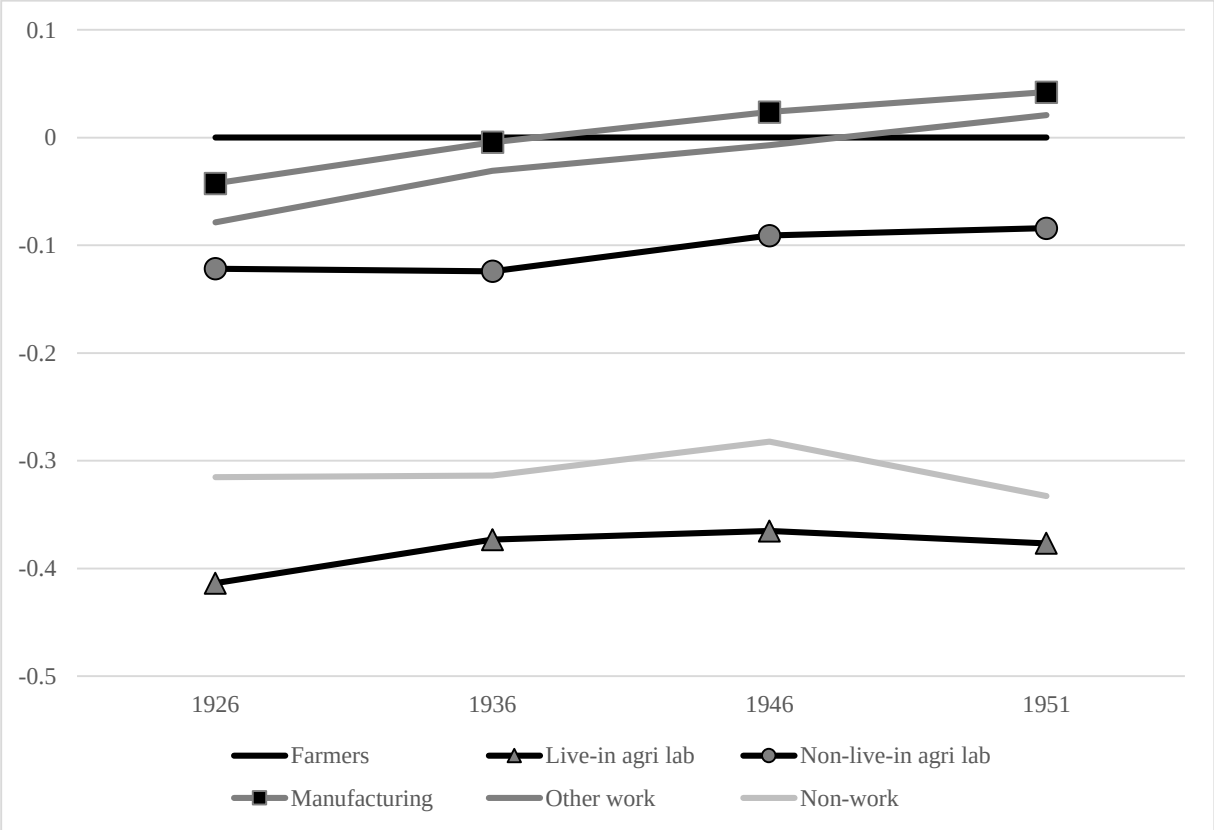
Occupational category	Proportion married relative to the reference category, adjusted for age	Absolute change since 1946
Farmers	0 (ref. cat.)	-0.0010
Live-in farm labourers	-0.3767***	-0.0124
Non-live-in farm labourers	-0.0841***	+0.0059
Manufacturing workers	+0.0422***	+0.0175**
All other workers	+0.0210***	+0.0130
Not gainfully employed	-0.3328***	-0.0514***

* statistically significant at the 10% level
** statistically significant at the 5% level
*** statistically significant at the 1% level

It is harder to pick out an overall trend here, with most groups experiencing changes that are statistically insignificant. In fact, the overall trend in this period was positive – even more strongly so than 1936-1946, if we account for the fact that this time-period was shorter. By now, both of our non-agricultural workers' groups are experiencing higher propensity to marry than farmers.

The changes in the position of each group relative to farmers can be illustrated graphically:

Figure 4.1: Association between occupation and the probability of being married, adjusted for age, 1926-1951 (Farmers = 0)



There is a gradual improvement in the position of our two non-agricultural workers' groups relative to farmers over the duration of the period under study. The trend for other groups is harder to distinguish, though it appears that relative position of both groups of agricultural labourers has improved slightly.

Of course, these changes in the relative position of each group could be a consequence of the worsening position of farmers rather than any improvement in their absolute position. Therefore, we can compare the absolute position of each group in 1926 and 1951:

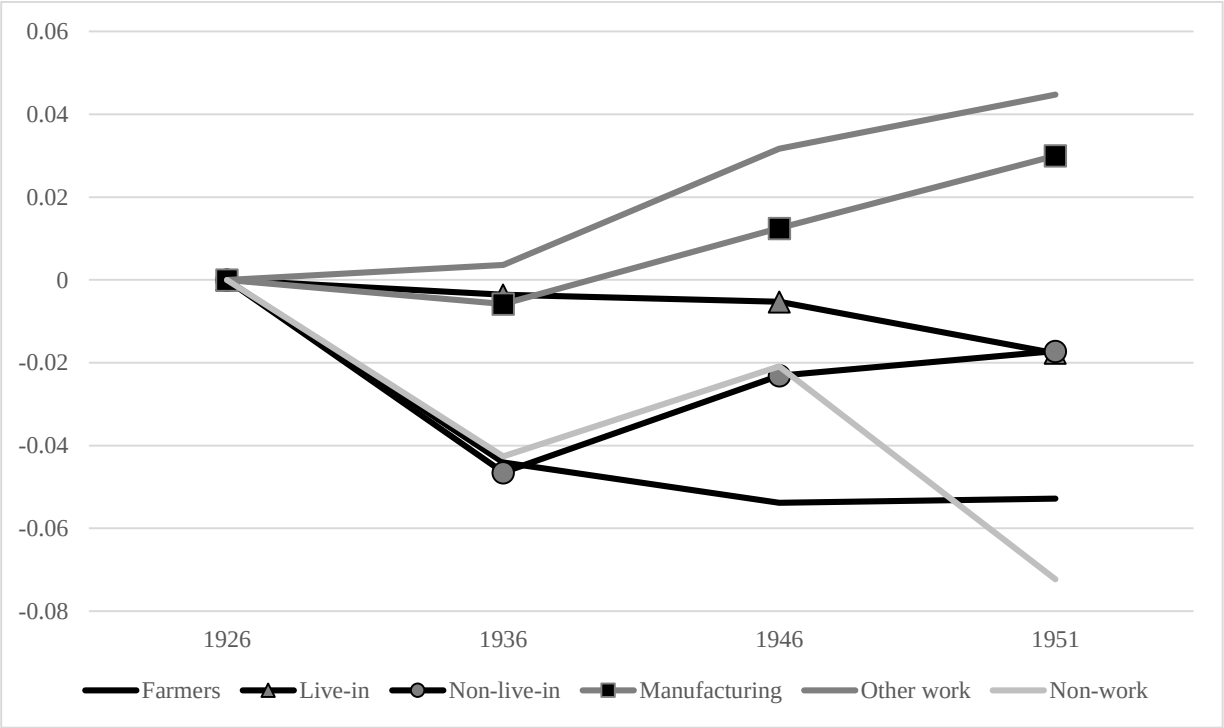
Table 4.5: Absolute change in probability of being married for each occupational category between 1926 and 1951, adjusting for age

Occupational category	Absolute change between 1926 and 1951
Farmers	-0.0528
Live-in farm labourers	-0.0177
Non-live-in farm labourers	-0.0172
Manufacturing workers	+0.0300
All other workers	+0.0447
Not gainfully employed	-0.0723

All of these changes are statistically significant, and they show a remarkable divergence in the position of agricultural and non-agricultural workers in this period. Indeed, the relative improvement in the position of agricultural labourers is merely a consequence of the sharp decline in the propensity to marry of farmers.

The change in the absolute position of each group between 1926 and 1951 is illustrated graphically below:

Figure 4.2: Change in the absolute probability of being married in each occupational group, 1926-1951 (1926 = 0)



What these results seem to tell us is that the Western European Marriage Pattern with Irish Characteristics outlined in Chapter 2 did not die out – it persisted after 1936, but this persistence was masked by improvements in the position of non-agricultural groups, as well, perhaps, as declines in the overall proportion of the labour force working in agriculture.

4.2 Decomposition using Kitagawa's method

Using Kitagawa's method, we can get a clear idea of how the changes in the proportion married break down.

Table 4.6: Results of a decomposition of the change in proportion married in each age group across each intercensal period using Kitagawa's method, 1926-1951

Age group	1926-1936	1936-1946	1946-1951	1926-1951
20-24	Total: -0.0018 Gross: +0.0005 Resid: -0.0023	Total: +0.0132 Gross: +0.0019 Resid: +0.0113	Total: -0.0000 Gross: +0.0045 Resid: -0.0046	Total: +0.0114 Gross: +0.0069 Resid: +0.0044
25-34	Total: -0.0206 Gross: +0.0055 Resid: -0.0261	Total: +0.0346 Gross: +0.0024 Resid: +0.0321	Total: +0.0292 Gross: +0.0185 Resid: +0.0108	Total: +0.0432 Gross: +0.0264 Resid: +0.0168
35-44	Total: +0.0075 Gross: +0.0113 Resid: -0.0039	Total: +0.0119 Gross: +0.0078 Resid: +0.0040	Total: +0.0253 Gross: +0.0139 Resid: +0.0114	Total: +0.0447 Gross: +0.0330 Resid: +0.0115
45-54	Total: -0.0207 Gross: +0.0046 Resid: -0.0254	Total: +0.0128 Gross: +0.0125 Resid: +0.0003	Total: +0.0118 Gross: +0.0078 Resid: +0.0040	Total: +0.0039 Gross: +0.0249 Resid: -0.0211

N.B. components may not sum exactly to total due to rounding
Gross = Gross I (change associated with change in composition of the labour force)
Resid. = Residual I (direct change within occupational groups)
Total = Total change in the proportion ever-married between the two years

Details of calculations that were needed to arrive at these results are in Appendix C. What is striking about these results is that our *Gross I* is positive across every year and every age group. In other words, in all of age groups there is a consistent increase in marriage rates that is attributable to changes in the composition of the labour force, rather than improvements within specific categories – were it not for these changes, the decline between 1926 and 1936 would be have been larger, and the recovery between 1936 and 1946 would have been smaller. Between 1946 and 1951 *Gross I* drives the majority of the increase in the proportion married across all four age groups.

Looking at our final column, which decomposes the change across our entire twenty-five-year period, we see that for our three youngest age groups, compositional change drives the

majority of the increase in propensity to marry, and for the oldest group it cancels out a downward trend in the *Residual I.* Our findings using Kitagawa's method can be summarised as follows:

- 20-24 year olds: 61% of the increase in proportion married between 1926 and 1951 explained by compositional change
- 25-34 year olds: 61% of the increase explained by compositional change
- 35-44 year olds: 74% of the increase explained by compositional change
- 45-54 year olds: all of the increase explained by compositional change

4.3 Discussion of results

4.3.1 Why did rural Ireland continue to stagnate?

The boom in agriculture anticipated after 1945 never materialised, and instead the years following the end of the war were a period of accelerated rural decline and emigration. (Daly, 2006) In 1948, the Irish government set up the Commission on Emigration and Other Population Problems to examine the causes of the country's demographic decline. (Atkinson & Nolan, 2010) The report of the Commission, published in 1955, spoke in stark terms about Ireland's low marriage rates, suggesting that their effect on Ireland's demographic situation was as significant as that of emigration itself. The Commission blamed low agricultural productivity, failure to develop other parts of the economy besides agriculture, and uncertainty over succession. (Department of Social Welfare, 1955) The Commission noted that women were more likely to leave rural areas, unhappy with the prospect of dowries and a life of farm work, leading to a significant imbalance between the sexes. (Department of Social Welfare, 1955) Their suggested responses to this issue were somewhat more enlightened than many others being put forward at the time, which amounted to initiatives to coerce young women into staying in the countryside by denying them opportunities elsewhere. (Daly, 2006) The Commission proposed that economic security, higher wages, clearer succession rights, and greater opportunities for social interaction would lead to an increase in marriage; but, as Mary Daly notes, the truth was that rural decline by mid-century was as much a problem of culture, technology and expectation as it was of economics. (Department of Social Welfare, 1955; Daly, 2006) There seems to have been a good deal of truth to the statement made by an unnamed rural dweller to K.H. Connell, who said that by this time "the land [was] a burden and a mark of slavery". (Connell, 1962, p. 523)

Although marriage certificates in Ireland did not fully record age at marriage until 1957, the data we have here gives us a good idea of changing patterns during the years leading up to the middle of the twentieth century. The basic outline of marriage patterns in Ireland in this period is largely as we would expect it to be, given the literature. It is clear that economic independence, and more specifically the capacity to establish an independent household, were decisive factors in determining whether or not an individual delayed marriage. Our results seem to support the theory that the decision to marry in Ireland during this period was intensely linked to economic conditions. Agricultural labourers who lived on the farm on which they worked were probably the lowest social class in Ireland at this time, experiencing poor pay and little economic independence – yet it is still quite remarkable how much lower the proportion married for this group was relative to the rest of the labour force, being on average about forty percentage points lower than the corresponding figure for farmers. Breen's view that agricultural service represented "life-cycle service", a relatively short spell of work between leaving school and emigration, is not borne out by the data, which suggests that many agricultural labourers like this did neither. (Breen, 1983) However, this issue is complicated by the question of familism – those servants that were not related to the farmers they worked for may have left this occupation earlier, and married.

The link between emigration and marriage seems clear-cut, and illustrated neatly by the downward trend of marriage rates between 1926 and 1936, which was a period in which emigration declined. We can see clearly the suggestion of Guinnane (1997) that delayed marriage was a substitute for emigration, albeit a poor one. However, when emigration resumed during and after the Second World War, delayed marriage continued to exist. If the life of an agricultural labourer in this period was as restricted as it is often portrayed, why did so many people stay behind in Ireland? It is likely that many people, and particularly young men, felt a sense of duty to stay on their family's land. For women, the choice to leave was easier, and it is hardly surprising that they were the most enthusiastic emigrants, and were much less likely to feel a sense of attachment to the land they had left. (Brody, 1973) Indeed, although this study did not examine marriage patterns for women in detail, it is clear from the literature alone that delayed marriage did not empower women or provide them with a greater degree of economic independence, in the way that de Moor and van Zanden (2010) might have expected; indeed, Beaumont (2006) suggests that this period saw a move away from the principle of equal rights enshrined in the Irish Free State constitution of 1922 and towards a more gendered idea of equal citizenship.

What is especially striking about the results of this study is that the trends towards delayed marriage in agriculture did not actually reverse in this period – in fact, it persisted across all three of our agricultural categories. The stagnation was most pronounced among land-owning farmers, a group that would previously have been regarded as relatively privileged economically. What is apparent in this period is that the economic position of the farmer is declining steadily, relative to non-agricultural working groups. This should not surprise us: Hugh Brody (1973) observed that the decline in the population of rural areas after the Famine alone could not explain agricultural stagnation in the mid-twentieth century. Instead, he argued that the relative decline in the position of rural Ireland was a consequence of a wholesale rejection of rural life. He suggested that around the time of the outbreak of the Second World War a "sense of relative deprivation" developed among rural communities. (Brody, 1973, p. 72) For eighty years after the Famine, so much social energy had been channelled towards staying on the land and keeping family holdings together, but by the second half of the twentieth century there was little beyond a sense of duty keeping people on the land, and people in remote areas found their way of life "a burden to be avoided if possible". (Brody, 1973, p. 72)

What explains this change in attitudes? Clearly, rural Ireland was relatively deprived, but that had been the case for many years: Arensberg and Kimball (2001) and others do not provide us with a sense of a space that was prosperous and free, but rather one in which patriarchal institutions exercised a form of dominance unimaginable in other parts of the country. One potential explanation is the slowdown in emigration that took place during the Great Depression in the early 1930s, which resulted in large labour surplus in this period that would have increased population pressure. Despite the efforts of successive Irish governments to "stem the flow" of emigrants, the massive demand for civilian labour in the wartime industries in Britain resulted in a resumption in large-scale emigration, which persisted in the decade after the war was won. Emigration was so high in the years immediately following the war that consideration was given to imposing restrictions, quotas, and even to banning women under 21 from emigrating altogether. (Delaney, 1998) However, there are no mentions of misgivings like this in Arensberg and Kimball's study, which provides us with a remarkably

positive view of rural life in the 1930s, one to which we should perhaps cast a critical eye. (Daly, 2006)

The second, ideational, explanation seems far more compelling. The middle decades of the twentieth century saw unprecedented change in technology, communications, and consumption and leisure patterns. Young people living in rural areas, many of them regular cinema-goers, would have been exposed quite vividly to the quality of life beyond their surroundings. Even the differences between Dublin and the countryside were stark: many rural areas were dependent on wells for their water until the 1960s, and rural electrification was not completed until 1955. (Daly, 2006) The consumer economy was taking shape in the l940s and 1950s, and perceptions of what constituted an acceptable standard of living were changing. Young people in rural areas were no longer content to work for little on a family farm, at a time when a desirable standard of living could only be attained by earning a regular wage. (Delaney, 1998) The fact that both emigrants and town-dwellers in Ireland had more money at their disposal was a source of dissatisfaction among the rural population, and this was especially true of women, whose traditional source of income, poultry and eggs, was disappearing in the early 1950s. (Daly, 2006) Technological change, which reduced the need for manual labour on farms from the 1950s onwards, would further have increased incentives to leave. (Hannan & Katsiaouni, 1977) While rural women had reported dissatisfaction with their lives before the middle of the twentieth century, it was the rise of consumerism and the need for a regular wage that created a decisive shift away from traditional patterns of work and marriage and towards something that more closely resembled the experience of Britain and continental Europe.

4.3.2 Did Ireland benefit from the WEMP?

The decomposition using Kitagawa's method strongly suggests that most of the recovery in Irish marriage rates that occurred from the 1930s onwards was produced by changes in the composition of the labour force, rather than direct increases in likelihood to marry within occupational groups. Indeed, it is likely from our data between 1926 and 1936 that occupational changes were offsetting the decline in marriage rates before 1936, albeit only slightly. What is important to remember about this data is that it only captures half of the process of emigration – only the portion in which the individual leaves their prior sector of the labour force in Ireland. In many cases, emigration involved individuals leaving agricultural labourer positions in Ireland in favour of industrial jobs in Britain and elsewhere, and this was especially true during the post-war construction and industrial boom in the UK in the late 1940s. (Delaney, 1998) Therefore, we can reasonably assume that our estimates of the percentage of the change in the proportion married produced by compositional change is in fact an underestimate. When emigration is factored in, it is likely that marriage rates were declining even faster, and that composition was exerting a greater influence.

All of this leads us to the conclusion that the WEMP did not go away during the period between 1926 and 1951 – it remained a prominent feature of agricultural life in Ireland. What changed was that the decline in agriculture which had been ongoing since the Famine accelerated. The proportion of the male labour force between ages 20 and 54 working in agriculture declined from just under 50 per cent in 1926 to 41 per cent in 1951, but most of

this decline took place in the final five years of the period under study. At every census from 1936 onwards agricultural workers were outnumbered by our other two employed categories, and by 1951 these two groups made up nearly 56 per cent of the male labour force in our relevant age categories. It appears from our study of the data that it was this change that produced the decline in the prevalence of the WEMP with Irish characteristics observed in the century after the Famine, and not a greater propensity to marry among those engaged in agricultural work.

What does this mean for the wider debate about the WEMP? First and foremost, the argument that delayed marriage was a sign of young people's independence does not seem to be supported – indeed, the declining proportion of the labour force engaged in agriculture seems a clear sign of the discontent that existed among younger people in the rural economy, and the fact that marriage rates began to recover when a critical mass moved to other parts of the economy seems to be an indication that people felt rural marriage patterns were holding them back. There is ample qualitative evidence from studies carried out in rural areas in this period to support this conclusion also, not least in K.H. Connell's discussion of the changing balance of power between farmers and their heirs in this period, where the ability of patriarchs to bend their sons to their will was sharply reduced. (Connell, 1962) Our data does not give us a clear idea of the relationship between educational advancement and delayed marriage, but it appears unlikely that human capital was a major reason for individuals delaying marriage in the first place. (Voigtländer & Voth, 2013) While this lack of economic independence is a major point of departure between the WEMP as it existed in Ireland and elsewhere in Western Europe, it may also be a sign that scholars have over-stated the extent to which delayed marriage was motivated by the desire of individuals in rural setting to advance themselves economically.

Our data, then, seems to support the view of Dennison and Ogilvie (2014) that delayed marriage in this context was a sign of economic stagnation, rather than potential for future growth. Certainly, if there was a point where rural Ireland moved towards the kind of self-sustaining growth predicted by Voigtländer and Voth (2013) among others, we do not observe it in this period, and it seem increasingly unlikely from the data that it is coming. Indeed, the only way we can conclude that delayed marriage paved the way for future growth is if we assume a link between the rise of the non-agricultural sectors and delayed marriage, which seems extremely unlikely. While delayed marriage was a feature of the countries that led the transition into the modern economy, like England and the Netherlands, it was also a feature of countries and regions that did not prosper, so the suggestion that it was a decisive factor in driving modern growth does not appear to be sustainable. Our data seems quite clear in suggesting that delayed marriage in an Irish context was a symptom of the country's economic stagnation, and moving away from the patriarchal, patrilocal rural economy that fostered it was a decisive factor in the country's transition towards a modern economy with sustained economic growth.

5 Conclusion

This study has sought to situate delayed marriage in Ireland within the wider context of the Western European Marriage Pattern, a widely discussed phenomenon specific to a part of Europe. We have established that there was considerable overlap between Ireland and Europe in its marriage patterns: in both cases it is likely that economic concerns were the primary determinant of age at marriage, and that the decision to delay marriage was one of economic prudence before all. There is also evidence from the literature of the importance of endogamy and the central importance of funding household formation in the decision to marry. However, there is little evidence to link delayed marriage in an Irish context to greater economic independence for younger people, or to greater levels of gender equality. It seems extremely unlikely that the WEMP as it existed in this period in Ireland fostered economic growth and development – indeed, its persistence appears to have been a sign of economic stagnation.

Our central research question was whether or not the decline in delayed marriage that took place from the 1930s onwards could be explained by a recovery in the fortunes of the rural economy, and the answer to that seems clear based on our data: it cannot be explained by endogenous change within the agricultural sector. Instead, it is apparent that the beginning of the reversal of a century of increase in the average age at marriage was largely a consequence of the changing composition of the labour force. These results appear to represent an indictment of delayed marriage as it existed in Ireland during this period: far from representing a canny long-term strategy, it appears that by the early twentieth century it was a maladaptive response to an economic crisis that had long left the public's memory. With the rise of the consumer economy in the middle of the century, it became even more difficult for the rural economy to maintain the commitment of its younger workers, who were acutely aware of the greater standard of living enjoyed by those working for a regular wage in urban areas and abroad.

Though our study did not examine the stem-family system in great detail, it seems extremely unlikely that a system which gave younger people little economic independence and left them under the considerable control of their parents can have been conducive to economic growth. Instead, the stem-family system can be seen as another symptom of the heavily anti-individualist ethos that permeated Irish society in this period, with a strong expectation that the group should take primacy over the interests of the individual. (Byrne et al., 2001) This system became increasingly unsustainable as the twentieth century went on, as the desire to work on the land decreased, and the bargaining power of parents diminished with it; therefore, we can credibly argue that the demise of delayed marriage in Ireland led to a much enhanced individualism, or at least that it was an indicator of it.

These findings are significant because the relationship between demography and economic growth remains difficult to quantify. Various scholars have posited that family represents the

corporation in its original form, we should therefore expect that the establishment of coherent and non-complex families to be conducive to economic growth. However, prior studies have suggested that this is not always the case, and our study has shown how economic incentives can encourage the spread of family forms that are more complex. The results of our quantitative study also illustrate the futility of these economic responses – ultimately, it was the declining influence of agriculture over the Irish economy that led Ireland out of both its economic and its demographic stagnation. This is a very meaningful finding, because it suggests that resources spent trying to encourage development through family policy may be resources squandered. It could well be that while economic growth is a catalyst for productive demographic behaviours like fertility limitation, this process does not work in reverse. Those who wish to encourage the demographic transition in parts of the world where it has not yet taken place may be wise to focus on economic development as a driver of this type of change.

Further research in this particular area is necessarily limited by a lack of data – the manuscript results from the 1926 census, for example, will not be released until 2027. It might be worthwhile for future researchers to look at the differences in marriage patterns among different types of agricultural labour, with a level of detail beyond that of this study. In addition, the relationship between farm size and marriage patterns is one for which contradictory results have been obtained in the past, and it might be worth examining that in more detail, as there is some evidence that smaller farms bore the brunt of the continued stagnation of marriage rates in the period covered by this study. The release of manuscript census returns should allow us to investigate in more detail the persistence of the stem-family system into the twentieth century, as well as other non-traditional family forms. Civil registration data from 1957 onwards, which includes age at marriage, could help with future studies, though it is likely that the relationship between occupation and likelihood to marry became steadily weaker through the second half of the twentieth century. More broadly, the findings of this study illustrate how we have not yet arrived at a clear idea of the link between family patterns and economic growth, if such a link exists. Future scholars will have to be mindful of the fact that patterns that appear similar on paper, as those of western Europe did to Hajnal fifty years ago, may in fact be completely different when examined in detail. This can be source of frustration to demographers, but it also has the capacity to give us fascinating insights into the interplay of economics, culture and sociology.

This study has sought to take an observed demographic phenomenon about which there has been much debate, and to use the example of one country to test some of the theoretical ideas that have been put forward about it. To some extent, it has left us with as many questions as answers. We still do not know for sure if there is a link between delayed marriage and economic growth. It could well be that Ireland is a poor choice of case study for these theories, but what country would be better? It appears from the research that has been carried that almost every country that experienced the WEMP did so in its own way, and so making prescriptive statements about its effect on economic growth is exceptionally difficult. David Kertzer once described Italy as the graveyard of family theories, but it appears that many of the hypotheses that have been overlaid onto the WEMP over the last decade or so have found their resting place in Ireland. (Derosas et al., 2014)

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Appendix A

Regression output (N=2679026):

Variable	Coefficent	Standard error	Significance
Constant	0.2367	0.0014	***
Age 20-24	Ref. Cat.	Ref. Cat.	
Age 25-34	0.2224	0.0007	***
Age 35-44	0.4575	0.0008	***
Age 45-54	0.5444	0.0008	***
Year 1926	Ref. Cat.	Ref. Cat.	
Year 1936	-0.0441	0.0018	***
Year 1946	-0.0538	0.0018	***
Year 1951	-0.0548	0.0018	***
Farmers	Ref. Cat.	Ref. Cat.	
Live-in farm labourers	-0.4136	0.0017	***
Non-live-in farm labourers	-0.1217	0.0020	***
Manufacturing workers	-0.0425	0.0017	***
All other workers	-0.0784	0.0016	***
Not gainfully employed	-0.3152	0.0028	***
Live-in farm labourers 1936	0.0405	0.0023	***
Live-in farm labourers 1946	0.0484	0.0024	***
Live-in farm labourers 1951	0.0369	0.0024	***
Non-live-in farm labourers 1936	-0.0024	0.0028	

Non-live-in farm labourers 1946	0.0307	0.0028	***
Non-live-in farm labourers 1951	0.0369	0.0029	***
Manufacturing workers 1936	0.0383	0.0025	***
Manufacturing workers 1946	0.0663	0.0025	***
Manufacturing workers 1951	0.0847	0.0024	***
All other workers 1936	0.0477	0.0022	***
All other workers 1946	0.0855	0.0022	***
All other workers 1951	0.0994	0.0022	***
Not gainfully employed 1936	0.0015	0.0041	
Not gainfully employed 1946	0.0329	0.0041	***
Not gainfully employed 1951	-0.0175	0.0042	***

* statistically significant at the 10% level
** statistically significant at the 5% level
*** statistically significant at the 1% level

Appendix B

Census-defined occupations in each occupational group:

Group 1 – Farmers

- Farmers

Group 2 – Live-in agricultural labourers

- Farmers' son and sons-in-law assisting on home farm
- Farmers' brothers, assisting on home farm
- Farmers' other relatives assisting on home farm
- Agricultural labourers, living in, employed on farms

Group 3 – Non-live-in agricultural labourers

- Land agents and managers, farm managers, bailiffs and foremen
- Agricultural labourers, living out, employed on farms
- Gardeners and nurserymen
- Gardeners' labourers
- Foresters and woodmen
- Turf workers
- Other agricultural occupations, including agricultural students

Group 4 – Manufacturing and non-agricultural primary sector workers

- Fishermen
- Mining and quarrying occupations
- Workers in the treatment of non-metalliferous mining products
- Coal-gas and coke makers, workers in chemical and allied trades
- Workers in metal manufacture, engineering and allied trades
- Textile workers
- Tanners, leather goods makers and fur dressers
- Makers of textile goods and articles (not boots or shoes)
- Makers of foods, drinks and tobacco
- Workers in wood and furniture
- Makes of and workers in paper and paperboard, printers and bookbinders
- Workers in rubber
- Working in building and contracting
- Painters and decorators
- Other producers, makers and repairers

Group 5 – All other workers

- Persons employed in transport and communication
- Commercial, finance and insurance occupations
- Persons employed in public administration and defence (excluding professional occupations)
- Profession and technical occupations
- Persons engaged in entertainment and sport
- Persons engaged in personal service
- Clerks, typists and draughtsmen
- Warehousemen, storekeepers, packers and bottlers
- Stationary engine drivers, tractor drivers and stokers, etc.
- Other and undefined workers, including unskilled workers

Group 6 – Not gainfully employed

- Retired and not gainfully employed

Appendix C

Detailed calculations for one part of the section dealing with Kitagawa's method:

Men aged 25-34, changes from 1926 to 1936

Occupational group	Share married in 1926	Share married in 1936	Population 1926	Population 1936
Group 1	0.477	0.411	14,264	11,585
Group 2	0.050	0.039	60,223	58,819
Group 3	0.336	0.267	18,650	23,312
Group 4	0.425	0.403	34,727	37,181
Group 5	0.373	0.359	65,138	71,583
Group 6	0.186	0.078	6,146	4,923
Total	0.2827	0.2620	199,148	207,403

$$t. - T. = Gross\ I + Residual\ I$$

$$t. - T. = 0.2620 - 0.2827 = \mathbf{-0.0207}$$

$$Gross\ I = \sum_i \frac{t_i + T_i}{2}\left(\frac{n_i}{n.} - \frac{N_i}{N.}\right)$$

$$Residual\ I = \sum_i \frac{\frac{n_i}{n.} + \frac{N_i}{N.}}{2}(t_i - T_i)$$

Calculating *Gross I*:

$$\left(\frac{0.411+0.477}{2}\right)\left(\frac{11585}{207403}-\frac{14264}{199148}\right)+\left(\frac{0.039+0.050}{2}\right)\left(\frac{58819}{207403}-\frac{60223}{199148}\right)$$

$$+\left(\frac{0.267+0.336}{2}\right)\left(\frac{23312}{207403}-\frac{18650}{199148}\right)+\left(\frac{0.403+0.425}{2}\right)\left(\frac{37181}{207403}-\frac{34727}{199148}\right)$$

$$+\left(\frac{0.359+0.373}{2}\right)\left(\frac{71583}{207403}-\frac{65138}{199148}\right)+\left(\frac{0.078+0.186}{2}\right)\left(\frac{4923}{207403}-\frac{6146}{199148}\right)$$

$$=(0.444)(-0.016)+(0.044)(-0.019)+(0.302)(0.019)+(0.414)(0.005)+(0.366)(0.018)$$

$$+(0.132)(-0.007)$$

$$=(-0.007)+(0.001)+(0.006)+(0.002)+(0.007)+(-0.001)=\mathbf{0.0055}=Gross\ I$$

Calculating *Residual I*:

$$\frac{\left(\frac{11585}{207403}-\frac{14264}{199148}\right)}{2}(0.411-0.477)+\frac{\left(\frac{58819}{207403}-\frac{60223}{199148}\right)}{2}(0.039-0.050)$$

$$+\frac{\left(\frac{23312}{207403}-\frac{18650}{199148}\right)}{2}(0.267-0.336)+\frac{\left(\frac{37181}{207403}-\frac{34727}{199148}\right)}{2}(0.403-0.425)$$

$$+\frac{\left(\frac{71583}{207403}-\frac{65138}{199148}\right)}{2}(0.359-0.373)+\frac{\left(\frac{4923}{207403}-\frac{6146}{199148}\right)}{2}(0.078-0.186)$$

$$=(0.064)(-0.066)+(0.293)(-0.011)+(0.103)(-0.070)+(0.177)(-0.021)+(0.336)(-0.139)$$

$$+(0.027)(-0.108)$$

$$=(-0.004)+(-0.003)+(-0.007)+(-0.004)+(-0.005)+(-0.003)=-\mathbf{0.0261}=Residual\ I$$

Therefore:

$$t.-T.=0.2620-0.2827=-\mathbf{0.0207}$$

$$Gross\ I+Residual\ I=0.0055-0.0261=-\mathbf{0.0207}$$