Standardization of Pathways to Adulthood? An Analysis of Dutch Cohorts Born Between 1850 and 1900*

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Abstract

This article examines pathways to adulthood among cohorts born in the second half of the nineteenth century. Although largely overlooked by previous studies, theory suggests that life courses of young adults born during this period were already influenced by a process of standardization, in the sense that they became more similar over time. Using data from a Dutch registry-based sample, we examine household trajectories, that is, sequences of living arrangements of young adults aged 15-40. Our study shows that for successive cohorts household trajectories became more similar. We identified six types of trajectories: early death, life-cycle service, early family formation, late family formation, spinster- and bachelorhood, and childless and with partner. Over time, early family formation gradually became the ‘standard’ trajectory to adulthood. Laboring class youths, farmers’ daughters, young people of mixed religious background, and urban-born youngsters were the nineteenth century forerunners of a ‘standard’ pathway to adulthood.

INTRODUCTION

During the twentieth century, the life courses of young adults in Western societies have undergone fundamental change (Mayer 2004). Among cohorts born in the first half of the twentieth century, events that mark the transition to adulthood, like leaving home, marriage and entry into parenthood, occurred at increasingly earlier ages, whereas among cohorts born in the second half of that century an opposing trend could be observed. In addition, among cohorts born in the first half of the twentieth century a trend towards standardization of the life course could be witnessed, in the sense that the life courses of young adults became increasingly similar to one another, whereas a process of de-standardization became apparent among cohorts born in the second half of the twentieth century. A by now impressive body of both theoretical and empirical knowledge about these processes has accumulated (Hogan 1978, 1981; Modell 1989; Modell, Furstenberg and Hershberg 197 6; Settersten, Furstenberg, and Rumbaut 2005; Stanger-Ross, Collins, and Stern 2005; Stevens 1990; Uhlenberg 1969, 1974).

Far less is known about the trends in the pathways to adulthood among cohorts born in the second half of the nineteenth century. This is unfortunate, as it would be worthwhile to know whether standardization of the life course was already occurring during this period, as has sometimes been suggested (Hareven 1986; Kohli 1986), or was something that only started among cohorts born in the early twentieth century. In addition, it would be interesting to know which social groups were the forerunners in the standardization process.

There are several reasons why our knowledge about the trends in the pathways to adulthood among cohorts born in the second half of the nineteenth century in Europe and North America is limited. First, most studies focus on changes in single markers of the transition to

adulthood. Yet, societal changes affect life courses as a whole, influencing not just the timing of separate transitions, but their sequencing and spacing as well. The notion of 'social pathways' (Elder, Johnson and Crosnoe 2003; Macmillan 2005) captures this idea of life course dynamics that take place over an extended period of time. Although a central element of the life course paradigm since its inception (Elder 1978; Elder 1985), life course scholars have only recently begun to empirically model social pathways in technically more advanced ways (e.g. Arosio 2004; Baizán, Michelin and Billari 2002; Elzinga and Liefbroer 2007; Hynes and Clarkberg 2005; Jackson and Berkowitz 2005; Martin, Schoon and Ross 2008; Pollock 2007). Secondly, most studies that focus on the transition to adulthood during the latter part of the nineteenth and the early part of the twentieth century rely on cross-sectional census data. Although imaginative use can be made of census data (Hogan 1978; Marini 1984; Rindfuss, Swicegood and Rosenfeld 1987; Uhlenberg 1969, 1974), such data cannot reveal the sequence of steps that individuals take during their life course (Mouw 2005).

In this article, we apply a pathway approach in order to examine the standardization of the transition to adulthood among Dutch cohorts born between 1850 and 1900. Our study extends earlier research in that we examine the transition of adulthood of a European population on the basis of longitudinal historical data, allowing us to go further back in time than what has been done before, and to study patterns of behavior across a large segment of the life course. More specifically, we examine household trajectories, that is sequences of living arrangements of young adults aged 15-40. In addition, because of the richness of the individual-level data, we are also able to examine social differentials in the patterns of entry into adulthood among these cohorts.

In the next section, hypotheses on several aspects of the standardization of the life course are developed. These hypotheses are subsequently tested using data from the Historical Sample of the Netherlands (HSN), a sample based on registry data that includes individual-level, prospective longitudinal information. We chart the extent to which standardization actually took place, empirically distinguish between different pathways to adulthood, and examine whether there was indeed a trend towards greater dominance of a 'standard' pathway. Finally, logistic regression analysis is used to examine the determinants of different pathways to adulthood. The main results and their implications are discussed in the concluding section.

HYPOTHESES ON THE STANDARDIZATION OF THE TRANSITION TO ADULTHOOD

Social Change and the Transition to Adulthood, 1850-1940

The transition to adulthood, today as well as in the past, consists of a series of passages, including leaving home, marriage and first parenthood. Its specific form, duration and content, however, differed between societies with diverse demographic regimes, family systems and cultural characteristics (for a recent overview of historical differences in leaving home patterns see: Van Poppel, Oris, and Lee 2004). A number of authors have tried to link national and regional patterns in the transition to adulthood in Western societies to historical patterns of family formation and family relations. Hajnal (1965) discerned an east-west divide in marriage patterns running from Petersburg to Trieste, with neolocal families, late ages at first marriage and a high percentage of never-married to the west of this line, and early and universal marriage to the east of it. Moreover, he argued that in Western Europe servanthood was a quintessential stage

in the life course of youngsters involving the departure from the parental home at a relatively early age (Hajnal 1983). Reher (1996) showed that there were also important north-south differences regarding life course patterns depending on the nature of family ties, thus separating contemporary north-western Europe (as well as North America) from southern and Mediterranean Europe. The north was characterized by weak family ties and an emphasis on individual independence. In the south strong family ties existed and group values and kin solidarity dominated. Whereas the transition to adulthood in the north was characterized by an early departure of children into domestic service, servanthood as a phase was uncommon in the south and youngsters only left the parental home upon marriage and the creation of their own families. Thus, considerable regional differences marked the transition to adulthood in Europe and in North America (Modell 1989; Modell, Furstenberg and Hershberg 1976; Van Poppel, Oris and Lee 2004; Wall 1995, 1989).

Apart from global differences, the transition to adulthood was subject to historical change (Brinkgreve and De Regt 1991; Gillis 1974; Hanawalt 1992). We briefly sketch the most important changes pertaining to the transition to adulthood during the period 1850-1940, thereby focusing on Northwestern-Europe and on the Netherlands in particular. In pre-industrial northwestern-European society, the passage to adulthood was a prolonged, hardly age-graded, phase with its own social status. Situated between dependence and independence, youngsters formed a separate group with their own rituals, festivities and organizations. Biological maturation, religious initiation and the end of primary education marked the onset of the transition to adulthood. Marriage and the formation of a household were regarded as its completion (Gillis 1974; Hanawalt 1992). This protracted phase was closely related to the dominant pattern of marriage and procreation. In the Netherlands, as elsewhere in Western

Europe, as of 1600 the West-European Marriage Pattern prevailed, which was characterized by a high to very high age at first marriage and a relatively large share of never married (Hajnal 1965). Marriage was only possible if one was able to ensure a living standard that was fitting to one's own social class. Related to this marriage pattern was the existence of life-cycle service. Substantial numbers of young people spent time in the households of others as an apprentice, maid, farm hand, or servant. Life-cycle service offered youngsters an opportunity to gain experience, while saving money for a dowry or a starting capital that would allow them to marry. The West-European Marriage Pattern however started to erode under the influence of industrialization.

In the Netherlands, industrialization took off around 1860. It was characterized by an intensification of the tertiary sector in the urban heartland of Holland and by a growth of the secondary sector - particularly metal and textiles production in the eastern region of Twente and manufacture of ceramics in the southern city of Maastricht (Van Zanden and Van Riel 2004; Wintle 2000). A range of new occupations emerged, for young men in the harbors, in shipbuilding, factories and housing construction, for women particularly in the urban domestic service sector. Only after the turn of the century, additional female employment opportunities opened up, for instance in department stores, teaching, and communications.

Industrialization in the Netherlands was hardly accompanied by an increase in state organization and regulation. Labor legislation was limited to curbing child labor (in 1874 and 1889) and the regulation of the labor of married women. Much of the work that was done by youngsters, for example in the domestic service sector, was excluded from these decrees. Neither did the educational system impose important regulations on the transition to young adulthood. In 1905, compulsory education until the age of twelve was introduced. Only in 1951 the

compulsory school age was heightened with two years (Mandemakers 1996). The welfare state did not develop very fast either. Legislation around old age pensions became effective in 1919, while bills regulating health care in the context of employment were implemented only after the Second World War (Wintle 2000). And not until 1963, with the introduction of the General Social Security Law, did poor relief become a task of the state (Van der Valk 1986).

Economic transformation and the institutionalization of the labor market however did affect young adult lives. Because of the rise of real wages it became easier to become economically independent at a younger age. As a result, the age at marriage started to decrease gradually in all social classes during the last decades of the nineteenth century (Van Poppel 1992). Moreover, the prevalence of marriage increased as well. Furthermore, improvements in economic conditions, health care, personal hygiene, and infant care led to a drastic decrease of mortality as from 1875, including a reduction of mortality among youngsters (Van Poppel 1999).

Technological modernization and the development of infrastructure and transport facilities (train, tram, and bicycle) also influenced young adulthood as of the 1870s (Knippenberg and De Pater 1988; Van der Woud 2007). Extended transport facilities enabled youngsters to co-reside with their parents and travel to work and thus instigated a separation of household and work, which in turn led to decreasing numbers of youngsters coresiding with non-kin. A decline in the prevalence of working and living in as a boarder, lodger, apprentice or (domestic) servant was further reinforced by increased prosperity, enlarged employment opportunities for women, and an increased need for privacy and leisure time. We expect that as a consequence of these developments, household trajectories of Dutch youngsters became increasingly standardized. In the next section, we will formulate a number of specific hypotheses on this standardization process.

Standardization of household trajectories

Although the concept of standardization is central to discussions about developments in the life course during the last century, it is hard to define what it exactly entails. A useful starting point could be the definition that Brückner and Mayer (2005) offer for the opposite process, that of 'de-standardization'. They define it as 'that life states, events and their sequences can become experiences which either characterize an increasingly smaller part of the population or occur at more dispersed ages and with more dispersed durations' (Brückner and Mayer 2005, 32). If one applies this type of definition to the process of standardization, at least two important aspects can be distinguished (cf. Elzinga and Liefbroer 2007). A first characteristic of standardization is that the similarity in life course trajectories has increased. Accordingly, our first hypothesis states that:

> Across cohorts born in the second half of the nineteenth century, pathways to adulthood became more similar (Hypothesis 1).

A second attribute of standardization is a decrease in the diversity of trajectories and the increased prevalence of one specific type of trajectory, which ultimately becomes to be viewed as 'the' standard trajectory. To define which trajectory became the standard one in the course of the late nineteenth and early twentieth century, we refer to Uhlenberg's (1974) typology of life course trajectories of women aged 15-50. Women who survived until age 15, but who died before their 50^{th} birthday pursued the path of 'early death'. Women who were not married at age 50 were categorized as 'spinsters'. Those who did marry but did not have children at age 50 were regarded as following the 'childless' track. Women who married and bore children but whose

marriage was interrupted by the untimely death of their partner were considered to have a 'broken marriage with children' pathway. A 'preferred' or 'standard' trajectory had early marriage and family formation as its central features. Following Uhlenberg's typology and empirical results, we expect that:

> Across cohorts born in the second half of the nineteenth century, the domination of a 'standard' pathway, characterized by early marriage and family formation, increased (Hypothesis 2).

What groups were precursors in this standardization process and what groups lagged behind? First of all, we expect disparities according to gender. For one thing, patterns of nuptiality were highly gender-specific. In the Netherlands, as of 1909, the occurrence of marriage among men started to increase whereas women's prevalence of marriage lagged behind. In 1930, the proportion of never married women was still about 5% higher than that of never married men (Engelen and Kok 2003). Yet, gender-specific occupational prospects constituted the most important differential in the passage to adulthood. Employment opportunities for young men were located in the parental home, in factories or workshops; often, work could be reached while living at home. Women on the other hand, were more dependent on employment opportunities that meant living in with an employer. During the period 1870-1920 on average almost 40% of all Dutch women worked as a servant before they married (Bras 2004). Although men co-resided with non-kin too, this type of living arrangement was more typical for women. Spells of living in gave women's life courses a more capricious and disordered character. We therefore expect that:

> Among cohorts born in the second half of the nineteenth century, pathways to adulthood of men were more standardized than the pathways to adulthood of women (Hypothesis 3).

Traditionally, large disparities among social classes existed in patterns of leaving home, living in, and marriage. Youngsters of the unskilled laboring classes were more often confronted with a period of life-cycle service than children born in the middle classes or in farm families (Bras 2004). However, changes in labor markets and risen living standards affected the prevalence and age at marriage of particularly youngsters of laboring class background, who profited from increased demand for workers and increased real wages. The marriage behavior of children originating in the higher and middle strata and in the farming class changed much less (Van Poppel 1992). The material prerequisites that were needed to create a household had, because of the rise of living standards, only become higher. Therefore, for the propertied classes, household formation remained difficult (Engelen and Kok 2003; Falkenburg 1905). Although laboring youth more often lived in with employers, their increased opportunities to marry, and to do so at younger ages, will have resulted in a greater degree of standardization of their pathways to adulthood in comparison to youngsters of other social backgrounds. So we expect that:

> Among cohorts born in the second half of the nineteenth century, the pathways to adulthood of unskilled laborers were more standardized than the pathways to adulthood of persons from other social strata (Hypothesis 4).

In the historical debate on the modernization of demographic behavior, religion plays an important role. Certain religious groups displayed modernized demographic behavior relatively early, while other groups lagged behind (Coale and Watkins 1986; Derosas and Van Poppel 2006). In the Netherlands, Catholic priests condemned birth control, and late marriage and celibacy were considered as the only means of population control. Among liberal Protestant denominations on the other hand, the Neo-Malthusian alternative was accepted much earlier. Particularly Remonstrant and Mennonite groups were freethinkers as far as birth control was concerned. Orthodox Protestants by contrast had similar strict sexual morals as the Catholics (Engelen and Kok 2003; Van Bavel and Kok 2005). If birth control is morally admitted, the cost of keeping up a household is easier to control and therefore, groups that are liberal with respect to birth control can be expected to start a household sooner and more often than groups in which birth control is less well accepted. Therefore, we formulate our fifth hypothesis as:

> Among cohorts born in the second half of the nineteenth century, the pathways to adulthood of Liberal Protestants were more standardized than the pathways to adulthood of persons belonging to other religious denominations (Hypothesis 5).

DATA AND METHODS

Data

We use data from the Historical Sample of the Netherlands (HSN). The HSN contains all information available in Dutch civil and population registers for a 0.5% sample of all Dutch men and women (so called Research Persons) born between 1812 and 1922 (Mandemakers 2006).

The most important source is the Dutch population register, which was initiated by Royal Decree in 1850 and was maintained by the separate municipalities. In each municipality, one or more civil servants were charged with keeping up the population registers. In it, information is available on date and place of birth, relation to the head of the household, sex, marital status, occupation, and religion for each individual in a household. All changes occurring in the household were mentioned in the register. New household members, arriving after the registration had started were added to the list of individuals already recorded, and those moving out by death or migration were crossed out with reference to the date of migration and the place of destination or the date of death. Migrated persons were subsequently registered in the place they had moved to. This means that families and individuals can, in principle, be tracked on a day-to-day basis for a long period. The decennial censuses were used to update the system.

For this study, Research Persons (RP's) who were born between 1850 and 1900, and who survived at least to the age of 15, were selected. Given that the population register was initiated in 1850, it was impossible to construct the full household trajectories of RP's born before 1850. In addition, given that information on all persons that live in the same household as the RP is available until 1940 only, and given that we want to study household trajectories for a relatively long period, we decided to exclude all RP's born after 1900, and to focus on the household trajectories of RP's between age 15 and 40. In all, information on household trajectories is available for 4,651 RP's.

The Construction of Household Trajectories

The HSN allows one to establish, at any point in time, with whom a RP lived, and thus to classify each RP according to household type. For each month between the ages of 15 and 40,

the RP is classified as living in one of eleven different household positions (Table 1). First of all the RP can live ‘alone’ (A). Secondly, the RP can live with his or her ‘parents’ (P), whether or not accompanied by siblings, and whether or not together with non-kin such as coresident personnel. When the RP is living with a partner but without one or both of the parents there are two possibilities: when the RP has no children, the living arrangement is designated as ‘With Spouse, without children’ (S) but if the RP does have children the living arrangement is classified as ‘With spouse and children’ (SC). In both cases, it does not matter whether – with the exception of parents – other kin and/or non-kin belong to the household. We classify the living arrangement as ‘without spouse, with children’ (C) when the RP lives with one of his or her children, but without a partner or parent. When, except for partner and any children, also one or both parents or parents-in-law reside in the household, the living arrangement is classified as ‘With spouse and parent (in-law)’ (SP) or as ‘With spouse, children, and parent (in-law)’ (SCP). Again it does not matter whether other kin or non-kin are part of the household. When the RP lives neither alone, nor with parents, children or partner in the same household, two possibilities remain: the RP lives with other kin, like a sibling or an aunt or uncle – and any possible non-kin- in a household, or the RP lives only with non-kin, for example as a servant or in an institutional household such as a convent. The first possibility is classified as ‘With kin other than spouse, parents-in-law or children’ (K), the second possibility as ‘With non-kin’ (N). In addition to these household positions proper, two further relevant positions are distinguished. First, it is possible that the RP dies after the age of 15, but before the age of 40. In that case an extra position ‘Died’ (D) is added for each month after the death of the RP. Secondly, a small minority of RP’s could not be classified unambiguously in all months between age 15 and 40. Rather than deleting these RP’s from the sample, the respective months are classified as ‘Unknown’ (U).

Table 1 about here

Using the positions defined above, for each RP a household trajectory can be defined, consisting of sequences of states and associated durations. An example is the sequence P/54 N/58 S/14 SC/174 that summarizes a 300-months trajectory between ages 15 and 40. In this example, the RP, having reached the age of 15 years, lives for 54 months with its parents, then spends 58 months within a non-family household, probably as a servant or maid, then starts living with a partner and, after 14 months, becomes a parent. Finally, the RP lives with this partner and at least one child for the remaining 174 months.[1]

Measures of standardization

The household trajectories introduced above allow for the construction of a number of measures of the level of standardization of the life course. To test the hypotheses, we briefly discuss (i) the ways in which the level of "similarity" is quantified and (ii) the cluster procedure used to construct a typology of a small set of relatively homogeneous household trajectories.

Similarity and distance. The best-known technique of comparing the level of similarity of sequences is "Optimal Matching" (OM), which was introduced into the social sciences by Abbott and Forrest (1986). Using OM amounts to quantifying distance between sequences as the minimum number of edits required in order to generate identical sequences. An example of a recent application of OM in demography is in Aassve, Billari and Piccarreta (2007), accessible

[1] Details on the exact procedures to construct these trajectories (including SPSS syntax files) can be obtained from the first author.

introductions are provided by Abbott and Tsay (2000), Billari (2001) and Brüderl and Scherer (2005). However, the use of OM in the social sciences has been seriously criticized, e.g. by Settersten and Mayer (1997), Wu (2000) and Elzinga (2003). Therefore, we use a different approach developed by Elzinga (2003, 2005). Here, we explain the basic principles of this approach; for details and algorithms, the reader is referred to Elzinga (2005) and Elzinga, Rahmann and Wang (2008).

In general, two objects can be said to be similar if they share one or more features and the more features shared, the more similar they are. On the other hand, if the number of features shared is small compared to the total number of features of either object, similarity is small. If no features are shared, there is no similarity and if all features are shared, that is if the objects are identical, similarity is maximal. So, it seems that quantifying or measuring similarity amounts to establishing the number and weight of the relevant features of both objects and establishing the number and weight of those shared.

In the present context, the objects are trajectories, sequences of states that summarize living arrangements. Such sequences consist of subsequences. For example and ignoring durations, the trajectory *x*="P A S" consists of the 1-long subsequences "P", "A" and "S", the 2-long subsequences "P A", "P S" and "A S" and the 3-long subsequence "P A S". Elzinga (2003, 2005) proposed to consider these subsequences as the relevant features of the trajectories and to represent the trajectories as vectors in a "feature-space": a space that is spanned by as many dimensions as there are possible subsequences that can be created from the available set of states. For example and for the sake of simplicity assuming that we only use the states $\{\mathrm{P},\mathrm{A},\mathrm{S}\}$, we could fix the order of the set of all subsequences and construct the vector representation $\mathbf{x} = (x_1, x_2, \ldots)$ of the trajectory *x*="P A S" as shown below:

Subs.	P	A	S	PP	PA	PS	AP	AA	AS	SP	SA	SS	PPP	…	PAP	PAS	…
x	1	1	1	0	1	1	0	0	1	0	0	0	0	…	0	1	…

So, whenever a particular subsequence, a particular feature, is possessed by the trajectory, the corresponding coordinate of the representing vector is set to 1 and if it is absent, the coordinate is set to 0. Now the number of features possessed by this sequence is easily counted to equal 7. However, this number also equals the product of the representing vector with itself: $\mathbf{x}'\mathbf{x} = \sum x_i \cdot x_i$. A second example is provided by elaborating on the trajectory *y*="P A P":

Subs.	P	A	S	PP	PA	PS	AP	AA	AS	SP	SA	SS	PPP	…	PAP	PAS	…
x	1	1	1	0	1	1	0	0	1	0	0	0	0	…	0	1	…
y	1	1	0	1	1	0	1	0	0	0	0	0	0	…	1	0	…

The reader can easily verify that the number of features possessed by the second trajectory *y* amounts to $\mathbf{y}'\mathbf{y} = \sum y_i \cdot y_i = 6$ and that the number of features shared by trajectories *x* and *y*, that is the number of common subsequences, equals $\mathbf{x}'\mathbf{y} = \sum x_i \cdot y_i = 3$. With this vector-representation, quantifying similarity is straightforward: as the number of features shared relative to the number of features of either sequence, the latter quantity taken as the geometric mean of the separate quantities:

$$0 \le s(x, y) = \frac{\mathbf{x}'\mathbf{y}}{\sqrt{\mathbf{x}'\mathbf{x} \cdot \mathbf{y}'\mathbf{y}}} \le 1 \ .$$

Clearly, if the trajectories do not share any features, or in other words have no common subsequences, we have that $\mathbf{x}'\mathbf{y} = 0$ and therefore that $s(x, y) = 0$ and when *x* and *y* are

identical, $s(x, y) = 1$. For the two sequences in our example, we find that $s(x, y) = .463$. An approximate interpretation of this number is "percentage of shared features or subsequences"; approximate, since the denominator of $s(x, y)$ is a geometric mean. Geometrically, $s(x, y)$ denotes the cosine of the angle between the representing vectors: the more similar, the smaller the angle and therefore the bigger the cosine of that angle. Similarly, $\sqrt{\mathbf{x}'\mathbf{x}} = \|\mathbf{x}\|$ denotes the length of the representing vector.

The above vector representation can be modified to accommodate weighing of the features in various ways. First, repetitions of subsequences can be taken into account by weighing by the number of times that particular subsequences occur within a sequence. For example, for the trajectory *z*="P A P A", this would generate the representation (partially) shown below:

Subs.	P	A	S	PP	PA	PS	AP	AA	AS	SP	SA	SS	PPP	…	PAP	PAS	…
z	2	2	0	1	3	0	1	1	0	0	0	0	0	…	1	0	…

In the social sciences, this kind of weighing makes sense since in trajectories of living arrangements or job careers, repetition of states, and therefore of subsequences, often occurs and is substantially meaningful.

A second kind of weighing is obtained by including durations as weights. For example, the trajectory *w*="P/4 A/2 S/3" would then give rise to the representation:

Subs.	P	A	S	PP	PA	PS	AP	AA	AS	SP	SA	SS	PPP	…	PAP	PAS	…
w	4	2	3	0	6	7	0	0	5	0	0	0	0	…	1	9	…

So, in the above representation, subsequences are weighed according to the total "time spend" in those specific subsequences. In the present paper, we combined both ways of weighing.

To examine the standardization of household trajectories, we first calculate the level of similarity between pairs of trajectories. For instance, one can calculate the level of similarity between all pairs of trajectories of females, and do the same for males. Next, one can calculate the average level of similarity of the trajectories of females, and compare that with the average level of similarity of the trajectories of males, to test whether females' trajectories are less standardized than males'.

A typology of household trajectories. To construct a typology of household trajectories, we partitioned the set of all trajectories into subsets such that, on the average, similarity within subsets is maximal whereas similarity between subsets or clusters is minimal. To do this, we define the dissimilarities or distances $D(x, y) = 1 - s(x, y)$.[2] Calculating these distances generates a matrix of distances between all pairs of trajectories. We then used K-means clustering (e.g. Duda, Hart and Stork, 2001; Hartigan, 1975) to construct a typology or classification of the trajectories. Since the method may converge to a local maximum, we generated 100 sets of random initial configurations and retained the solution with the maximal R^2; this ascertains that our solution is probably very close to the global maximum.[3]

[2] When we rescale the vector-representations to unit-length, $D(x, y)$ correspond to unit-free, squared Euclidean distances between the rescaled vectors. A formal treatment of the concepts of metric distance and similarity and their interrelations is presented in Chen, Ma and Zhang (2009).

[3] Of course, the reader noted that actually calculating $s(x, y)$ for longer trajectories and an extended alphabet of states would imply constructing and processing vectors of extreme

Independent variables

To study trends and social differentials in household trajectories, a number of characteristics are included: birth cohort, sex, social class, and religion. In addition, the region of birth and the degree of urbanization of the birthplace of the RP are included as control variables. The reason to include the latter two variables as controls only is that the regional spread of the RP's is unequal over cohorts. Only for the provinces of Zeeland, Friesland and the city of Rotterdam, data for all cohorts is present in the database. We briefly discuss the construction of all variables, except gender.

Birth cohort. RP's are born between 1850 and 1900. To examine whether changes between cohorts took place gradually or more abruptly, we classified all RP's into five ten-yearly cohorts in the following way: 1850-1859, 1860-1869, 1870-1879, 1880-1889 and 1890-1899.

Occupational group of the father. The social class of the RP was charted on the basis of the occupational title of the father. We used the occupation of the father at the birth of the RP as mentioned on the birth certificate. When the father was not present at the notification of birth, the first occupational title of the father during the first five years of the RP's life was used. We classified all occupations in a social class system applicable for the whole period, called HISCO (*Historical International Standard Classification of Occupations*) (Van Leeuwen, Maas and Miles 2002), which is compatible with the International Labor Organization's *International Standard Classification of Occupations* (ISCO68) scheme. The occupational categories were

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dimensionality. Indeed such processing is not feasible in practice. Algorithms that efficiently calculate the vector products have been amply described in Elzinga (2003, 2005) and in Elzinga, Rahmann and Wang (2008); software that implements these algorithms can be obtained from the authors Elzinga (2008) or from Gabadinho, Ritschard, Studer, and Müller (2008).

further classified into an abridged version of a historical social class scheme proposed by Van Leeuwen and Maas (2005), known as HISCLASS. We employ the following seven categories in our analyses: higher managers and professionals, lower managers and professionals combined with clerical and sales people, foremen and skilled workers, farmers and fishermen, lower skilled workers, unskilled workers, and farm workers.

Religion of parents. Parents' religion was ascertained by using the designation of the denomination of both of the parents at the time of the birth of the RP. Following Van Bavel and Kok (2005), the following categories were discerned: 'Liberal Protestants', 'Catholics', 'Orthodox Protestants', 'mixed religion', and 'Other'. The category 'Liberal Protestants' includes the majority of the moderate and liberal schools in the Reformed Church as well as a number of relatively liberal Protestant churches in the Netherlands, such as the Mennonites, the Lutherans and the Remonstrants. The group of 'Catholics' comprises of Roman-Catholics, Old Catholics and Free Catholics. The orthodox-protestants includes those parents who belonged to one of the Calvinist Churches that split off from the main reformed Church during the last quarter of the nineteenth century or to an orthodox school in the main Reformed Church. The 'Other' category is composed of parents belonging to a Liberal Secessionist denomination, Jewish parents, parents who did not have a religion and parents of whom no religion was available.

Region of birth. Region of birth represents the differences in demographic regimes that RP's grew up in. Particularly, regional differences in nuptiality are of interest, with the northwest and the northern part of the Netherlands having traditionally early ages at marriage, the southern part of the Netherlands having late ages at marriage, and the eastern part somewhere in between. Moreover, regions also differed with regard to the extent that co-residence with kin occurred.

Only in the eastern part of the Netherlands stem families and multigenerational households were common. Thus RP's were divided into four regions that differed demographically and with respect to patterns of coresidence according to a scheme proposed by Hofstee (1981): 'Northwest and North', 'West and Southwest', 'Eastern sandy soil regions', 'Southern sandy soil and river clay regions'.

Degree of urbanization of birthplace. The degree of urbanization of the place of birth of the RP was classified on the basis of the number of inhabitants and the proportion of the male occupational population working in agriculture. Communities with less than 5,000 inhabitants and with less than 20,000 residents but more than 40% working in agriculture were classified as rural. Places with a population between 5,000 and 20,000 of which less than 40% was employed in agriculture, were marked as urban, as were places with more than 20,000 inhabitants. A dichotomous variable was constructed indicating whether a community was urban or not.

Table 2 gives an overview of the characteristics of the different cohorts.

Table 2 about here

RESULTS

In this paper, two indicators of standardization are used. First, the average level of similarity in household trajectories is studied. Next, attention is paid to the extent to which one specific standard trajectory emerged.

Similarity of Pathways to Adulthood

Our first hypothesis stated that trajectories to adulthood became more similar among subsequent cohorts. If the average similarity is close to 1, standardization is said to be high, if the average similarity is close to 0 it is relatively low. In Table 3, the average similarities of the household trajectories are presented by cohort. Although the average similarity is low (on average just above 0.2) there is indeed a trend towards more similar trajectories. Amongst the 1850-59 birth cohort overall similarity is 0.188, and this increases to 0.242 amongst the 1890-99 birth cohort. Table 3 also shows that this trend towards a higher level of similarity is visible for almost all subgroups. It holds true for men and women, for almost all occupational classes and for almost all denominations.

Table 3 also sheds light on our hypotheses 3 to 5. We expected a higher level of similarity in trajectories among men than among women. This hypothesis was confirmed. Similarity was higher among men (0.231) than among women (0.211). According to hypothesis 4, a higher level of similarity was expected among unskilled laborers than among others. Partial support for this hypothesis was found. Three classes – unskilled laborers, farmers and fishermen, and higher managers and professionals – stood out with a high level of similarity. Thus, although unskilled laborers showed a relatively high level of standardization of household trajectories, they were not unique in that respect. Finally, according to hypothesis 5, a high level of standardization of household trajectories was expected among Liberal Protestants. This hypothesis was not supported. Only persons from a mixed denominational background stood out with a relatively high level of standardization.

Table 3 about here

Towards a Standardized Pathway?

In this section we test our second hypothesis that the dominance of a trajectory of early family formation increased for cohorts born between 1850 and 1900. A two-stage procedure is used to test this hypothesis. First, we empirically construct a typology of household trajectories. Next, it is examined whether the 'standard' trajectory indeed became more dominant among subsequent birth cohorts.

By means of cluster analysis, RP's were classified into more or less homogeneous subgroups. We empirically generated eight clusters from the data (R^2=0.352). In Table 4 all eight clusters are presented. For each cluster, information is provided on the number and percentage of respondents who are classified within that cluster, on the average similarity of sequences within that particular cluster, and its standard deviation, and finally, on the most characteristic sequence within that cluster. We will briefly describe each of the eight clusters that were identified.

The cluster of 'early death' comprises 8% of the sample and has a characteristic sequence of P/64 D/236, which stands for a trajectory in which a person lives in the parental home until the age of 20 and subsequently dies. About 14% of all RP's experienced a trajectory of 'life-cycle service'. This cluster includes mainly persons who, prior to their marriage, resided in the households of non-kin, thus including domestic servants, but also as apprentices, farm hands, and boarders and lodgers. The most characteristic life-cycle service trajectory was P/54 N/58 S/14 SC/174. A person that experienced such a trajectory thus lived until his or her twentieth birthday in the parental home, then lived for approximately five years with an employer or other non-kin, subsequently married and after a short period gave birth to a first child and then lived until the age of 40 together with spouse and children.

There are two distinct though related trajectories, which we both call 'early family

formation'. The first trajectory is characterized by the sequence P/104 S/7 SC/189, which means living in the parental household until the age of circa 23 or 24, followed by marriage and a short period alone with a spouse, after which the first child is born. The other pathway ('early family formation 2') differs only in the fact that the RP leaves the parental household and immediately starts residing with partner *and* children. Such a move seems rather uncommon, but its frequent occurrence in the data set was most likely caused by the fact that moves out of the parental home within the same municipality were often not noticed straightaway, but only after a specific event, like the birth of a first child, occurred. In such instances, a brief spell living with a partner but without children was not registered. Therefore, both clusters were joined in subsequent analyses into a combined cluster of 'early family formation'. About 27% of all RP's followed this pathway to adulthood.

Another cluster, named 'late family formation', included persons who married relatively late – around the age of 29 - and who bore children afterwards. This group comprised about 12% of the total. The trajectory 'childless and with partner' is followed by about 5% of men and women who married but bore no children before age 40. The cluster of 'spinster- and bachelorhood', 9% of our sample, consists of those persons who were still unmarried at the age of 40. Finally, there is a relatively large 'rest category' of more than a quarter of all RP's, which contains 'non-classifiable', widely heterogeneous trajectories. This category includes for example a number of RP's who with their partner and children first lived in with parents (in-law) before moving out to a 'nuclear' household situation and RP's whose life courses were characterized by many short spells of living alone or with non-kin. Needless to say, the average similarity of this cluster is very low.

Table 4 about here

To what extent did the prevalence of the trajectory of ‘early family formation’ increase as a pathway to adulthood, as we expected on the basis of our second hypothesis? Figure 1 depicts, for each birth cohort, the proportions of RP’s that experienced the different trajectories. It shows that the trajectory of early family formation became more important across successive cohorts. Whereas one-fifth of the oldest cohort experienced this pathway to adulthood, almost a third of the youngest cohort experienced this trajectory. The almost parallel decline of the ‘rest category’ is also a sign of standardization. This cluster includes diverse pathways to adulthood that did not fit in with the other clusters and neither had a clear profile of their own. The decrease of this diffuse category, which most clearly diminished as of cohort 1870-1879, in itself meant a trend towards uniformity of pathways to adulthood. Furthermore, Figure 1 shows that the proportion of bachelors and spinsters hardly declined; its share fluctuated between 8 and 10%. With regard to late family formation, we observe a U-shaped pattern. Late marriage became less common until birth cohort 1870-1879, after which it again increased in prevalence. As we expected, the servant trajectory first increased and then decreased in significance. The proportion of men and women that experienced this trajectory reached its peak (17%) among birth cohort 1870-1879. Thus, Figure 1 shows that the growth of the early family formation trajectory came about chiefly at the expense of the very heterogeneous trajectories in the rest category. But although early family formation became the most important trajectory, late family formation, celibacy and life-cycle service remained customary alternatives. The ‘old’ trajectories to adulthood in fact hardly lost in incidence among the birth cohorts studied here.

Determinants of Pathways to Adulthood

To examine which social classes and religious denominations were the first to embark on the 'new' standard trajectory of early family formation two types of multivariate analyses were performed. First, a binomial logistic regression was performed to provide a broad overview of which characteristics distinguished those who followed the early family formation trajectory from all others. Next, a multinomial logistic regression was performed to focus more specifically on the characteristics which distinguished the followers of the early family formation trajectory from those in each of the other trajectories. Because the timing of events, and thus the distribution across trajectories, differs strongly between men and women, these analyses were performed separately for both genders. Results of both types of analyses are presented in Tables 5 and 6.

The results of the binomial logistic regression confirm the findings in Figure 1 that – across cohorts – there is a clear increase in the likelihood of the early family formation trajectory among both women and men. The multinomial logistic regression shows that among women, the rise of the new standard trajectory occurred particularly at the expense of the life-cycle service trajectory and the 'rest' category. Among men, the picture is somewhat more complex. The rise of the new standard trajectory occurred at the expense of the late family formation, early death, life-cycle service and 'rest' trajectories. The odds of following the new standard compared to following the childless trajectory were strongly enhanced for the birth cohorts 1860-69 and 1880-89, but not for the other birth cohorts.

In hypothesis 4, we expected that laboring class youths more frequently experienced a 'standard trajectory' of early family formation than youngsters with other social backgrounds.

The results of the binomial logistic regression partly confirmed this hypothesis: men and women born in unskilled laboring class families had higher odds to experience early family formation than middle class children. The same was true for farmers' daughters and sons of farm workers. Farmers' daughters were particularly more likely to follow the new standard rather than the life-cycle service or spinster trajectories. Women from the unskilled labor class had an enhanced risk of following the new standard rather than spinsterhood. Daughters and sons of farm laborers had a relatively strong preference for the early rather than the late family formation trajectory. Finally, men with farming or an unskilled labor background had an elevated risk to opt for the early family formation standard rather than the childless trajectory.

Our hypothesis that youngsters from liberal Protestant background were precursors in experiencing a 'standard trajectory' (H5) is only partly corroborated. Indeed Liberal Protestant youths were more often early homemakers than Catholic youngsters. Catholic men, in particular, were more likely than liberal Protestants to experience the late family formation, early death and life-cycle service trajectories. However, women of mixed religious background had even higher odds than Liberal Protestants to follow the 'standard trajectory' rather than any of the other trajectories, in particular because they had an increased likelihood to opt for early family formation at the expense of spinsterhood.

Finally, the results for the control variables region of birth and level of urbanization are worth noticing. Persons born in urban areas had higher odds of opting for early family formation rather than for life-cycle service, than persons born in rural areas. Furthermore, early family formation occurred more often among those born in the (South)West of the Netherlands than among men and women born in the South and than among women born in the Northwest.

Tables 5 and 6 about here

CONCLUSION AND DISCUSSION

The central question guiding this study was whether trajectories to adulthood of cohorts born between 1850 and 1900 became standardized. On the basis of our analyses of the HSN-data we can now answer this question. First of all, we expected trajectories to adulthood to become more similar across cohorts. This was corroborated by our data. This trend towards more similarity in living arrangements trajectories was observed for both genders and for almost all social classes and religious denominations. A second aspect of standardization would have been the increased dominance of a standard trajectory of early family formation. On the basis of cluster analysis we identified six types of often-experienced trajectories, namely early death (between ages 15 and 40), life-cycle service, early family formation, late family formation, spinster- and bachelorhood, and childless marriage. Our data show that, over consecutive cohorts, early family formation gradually became the most popular trajectory, although it was not yet experienced by a majority. Other pathways were however not yet fully superseded; the increase in relevance of early family formation happened mainly at the expense of a heterogeneous 'rest category'. Trajectories like late family formation or spinster- and bachelorhood, which were common in the pre-industrial West-European Marriage Pattern, remained widespread among late-nineteenth century born cohorts as well.

Because employment opportunities were more diversified for women than for men, the former were expected to have more diversified trajectories than the latter. This hypothesis was corroborated. Similarity in trajectories was higher for men than for women. In addition, we expected strong social class and religious differentials in the transition to adulthood. Social class

and religious denomination indeed influenced the trajectories by which youngsters eventually reached adulthood. Laboring class youths, farmers' daughters, youngsters born in mixed religious families, and urban-born were the most likely to follow the trajectory of early family formation. These groups were nineteenth-century forerunners of a 'standard' pathway to adulthood. Conversely, youngsters born in middle-class milieus and Catholic men often married late, while farmers' sons and Catholic girls most often remained unmarried. Particularly, women who were born in unskilled laboring households spent part of their young adult years in life-cycle service.

Standardization is often believed to be a consequence of institutionalization, as the schooling system, the employment system, social insurance, the welfare state and age-graded laws increasingly regulated transitions and imposed structural constraints (Buchmann 1986; Mayer 1986). Apart from that, it is also assumed that life courses were gradually disconnected from the influence of the family and the locale (Beck 1992; Kohli 1986, 272). Our results have shown that the term 'standard life course' as life course sociologists define it, did not apply for large parts of the Dutch population born during the second half of the nineteenth century. Indeed a trend towards a more uniform transition into adulthood took place; it became more similar for a larger part of the population and a pathway of early family formation grew in importance, but we cannot yet speak of one clear standard trajectory. Moreover, large regional differences within Europe can be expected in the process of standardization. Since we based our analyses on data from the Netherlands, our study can be viewed as broadly representing changes in the transition to adulthood in Northwestern-Europe (and partly also North-America). In Southern Europe, where living-in as a servant was uncommon and children historically only departed from the

parental home upon or even after marriage, trends towards standardization might have been less outspoken.

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Table 1. Living Arrangements and their Acronyms

Number	Acronym	Description
1	A	Alone
2	P	with Parents
3	S	with Spouse, but without Children
4	SC	with Spouse and Children
5	C	without Spouse, but with Children
6	SP	with Spouse and Parents(in-law)
7	SCP	with Spouse, Children, and Parents(in-law)
8	K	with Kin other than Spouse, Parents(in-law) or Children
9	N	with Non-kin
10	D	Died
11	U	Unknown

Table 2. Proportions per category of the variables sex, occupational group of father, parents' religious denomination, region, and degree of urbanization by birth cohort

	1850-1859	1860-1869	1870-1879	1880-1889	1890-1899	Total
Sex (male)	51	49	50	47	48	48
Occupational group of father						
Higher managers and professionals	2	2	3	7	10	7
Lower mangers and professionals, clerical and sales	19	22	24	17	16	18
Skilled laborers	20	16	15	18	17	17
Farmers and fishermen	14	16	12	15	13	14
Lower skilled laborers	8	9	6	10	10	9
Unskilled laborers	8	8	8	10	12	10
Farm laborers	27	25	30	23	21	24
Unknown	2	2	3	1	1	1
Religious denomination parents						
Both Liberal Protestant	63	60	57	48	45	51
Both Catholic	17	19	17	26	27	23
At least one Orthodox Protestant	11	11	15	14	16	14
Mixed	5	3	3	4	4	4
Other	4	6	7	9	8	8
Region						
West and Southwest	50	50	49	47	47	48
Northwest and North	31	33	35	22	20	25
Eastern sandy soils	-	-	-	9	12	7
Southern sandy soils and river clay	19	17	16	22	21	20
Degree of urbanization (urban)	40	40	39	46	50	45
N	463	612	647	1241	1688	4651

Source: HSN Release 2007.01.

Table 3. Average similarity of household trajectories by sex, occupational group of father and parents' religious denomination, by birth cohort

	1850-1859	1860-1869	1870-1879	1880-1889	1890-1899	Total
Total	**0.188**	0.209	0.202	0.221	**0.242**	0.218
Sex						
Men	**0.198**	0.226	0.209	0.243	**0.255**	0.231
Women	**0.186**	0.199	0.204	0.211	**0.235**	0.211
Occupational group father						
Higher managers and professionals	0.244	0.226	0.327	0.233	0.288	0.252
Lower managers and professionals, clerical and sales	**0.189**	0.215	0.221	0.230	**0.235**	0.218
Skilled laborers	0.229	0.202	0.198	0.227	0.247	0.220
Farmers and fishermen	**0.203**	0.262	0.240	0.245	**0.253**	0.238
Lower skilled laborers	**0.160**	0.206	0.274	0.249	**0.214**	0.208
Unskilled laborers	**0.219**	0.225	0.217	0.240	**0.274**	0.239
Farm laborers	**0.198**	0.221	0.190	0.209	**0.247**	0.212
Unknown	0.279	0.212	0.170	0.195	0.232	0.212
Parents' denomination						
Both Liberal Protestants	**0.192**	0.229	0.216	0.224	**0.244**	0.219
Both Catholic	**0.187**	0.228	0.184	0.213	**0.238**	0.214
At least one Orthodox protestant	0.226	0.203	0.223	0.217	0.253	0.223
Mixed	0.259	0.346	0.300	0.292	0.265	0.257
Other	**0.118**	0.195	0.145	0.247	**0.245**	0.214
N	463	612	647	1241	1688	4651

[a]Significant changes are printed boldfaced. In that case 90% confidence intervals of the first cohort (1850-59) and the last cohort (1890-99) do not overlap (one-way ANOVA posthoc LSD tests).
Source: As in Table 2.

Table 4. Household trajectories on the basis of the cluster analysis

Type of trajectory	*N*	age	Average Similarity	Standard deviation similarity	Characteristic sequence [a]			
Early death	356	7.65	0.664	0.134	P/64	D/236		
Life-cycle service	657	14.13	0.418	0.099	P/54	N/58	S/14	SC/174
Early family formation /1	718	15.44	0.769	0.111	P/104	S/7	SC/189	
Early family formation /2	519	11.16	0.653	0.126	P/108	SC/192		
Late family formation	550	11.83	0.619	0.129	P/167	S/13	SC/120	
Childless and with partner	236	5.07	0.560	0.130	P/152	S/148		
Bachelor- and spinsterhood	402	8.64	0.807	0.141	P/300			
Rest category	1213	26.08	0.083	0.031	P/52	N/12	P/147	SC/89

[a] 'P='Parents'; D='Deceased'; N='with Non-kin'; S='with Spouse without Children'; SC='with Spouse with Children' (see also Table 1).
Source: As in Table 2.

Table 5. Results of binomial and multinomial logistic regression analyses of the determinants of trajectories to adulthood of women: odds ratios (N = 2401)

	Early family formation (Early) vs all	Early vs early death	Early vs life-cycle service	Early vs late family formation	Early vs childless and with partner	Early vs spinster	Early vs 'rest'
Birth cohort							
1850-1859	1.14	0.65	1.54	1.14	1.64	1.47	0.98
1860-1869	0.86	0.65	0.99	0.84	0.77	0.74	0.89
1870-1879 *(ref.)*	1.00	1.00	1.00	1.00	1.00	1.00	1.00
1880-1889	1.31 †	0.90	1.31	1.55	0.89	1.53	1.39 †
1890-1899	1.62 **	1.25	1.85 **	1.33	0.82	1.54	1.92 ***
Occupational group of father							
Higher managers and professionals	0.94	1.85	0.93	0.94	0.78	0.83	0.94
Lower managers and professionals, clerical and sales people *(ref.)*	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Skilled laborers	1.08	1.77 †	1.07	0.99	0.83	1.34	0.98
Farmers and fishermen	1.52 *	1.73	1.94 *	0.81	1.43	2.13 *	1.45 †
Lower skilled laborers	0.98	0.63	1.16	1.00	0.84	1.07	1.02
Unskilled laborers	1.38 †	1.67	0.86	1.71	1.59	2.95 **	1.36
Farm laborers	1.27	1.36	0.90	2.04 *	0.81	2.85 ***	1.25
Unknown	0.93	0.86	0.71	1.01	1.73		0.69
Religious denomination parents							
Both Liberal Protestant *(ref.)*	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Both Catholic	0.77 *	0.73	0.78	0.88	1.03	0.49	0.83
Al least one Orthodox Protestant	1.01	0.97	1.23	1.11	0.82	0.81 ***	0.97
Mixed	1.63 *	1.79	1.09	1.61	1.36	4.02 *	1.86 *
Other	1.07	2.70 †	1.11	1.11	0.65	1.17	0.99
Region							
West and Southwest *(ref.)*	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Northwest and North	0.82	0.77	0.60 **	0.89	0.93	0.91	0.98
Eastern sandy soils	0.69	0.58	0.54 *	1.24	2.85	0.77	0.60 *
Southern sandy soils and river clay	0.64 **	0.83	0.50 ***	0.62 *	0.92	0.83	0.61 **
Urban	1.21	1.48	1.54 *	1.06	0.64	1.28	1.13
Constant	0.21 ***	2.29 *	3.28 **	1.06	8.83 ***	1.61	0.67 †
Nagelkerke R^2	0.03			0.10			

† $p<.10$; *$p<.05$; **$p<0.01$; ***$p<0.001$. *Source*: As in Table 2.

Table 6. Results of binomial and multinomial logistic regression analyses of the determinants of the trajectories to adulthood of men: odds ratios (N = 2250)

	Early family formation (Early) vs all	Early vs early death	Early vs life-cycle service	Early vs late family formation	Early vs childless and with partner	Early vs bachelor	Early vs 'rest'
Birth cohort							
1850-1859	0.64 *	0.53 †	0.92	0.37 ***	1.33	0.69	0.65 †
1860-1869	1.03	0.90	0.89	0.80	2.14 †	1.14	1.06
1870-1879 *(ref.)*	1.00	1.00	1.00	1.00	1.00	1.00	1.00
1880-1889	1.41 *	1.26	1.96 *	0.96	2.21 *	1.54	1.39 †
1890-1899	1.33 †	1.31	1.89 *	0.87	1.25	1.29	1.52 *
Occupational group of father							
Higher managers and professionals	1.38	1.54	1.40	1.32	1.71	1.09	1.49
Lower managers and professionals, clerical and sales people *(ref.)*	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Skilled laborers	1.14	1.07	0.99	1.11	1.85 †	1.24	1.06
Farmers and fishermen	0.86	1.06	1.21	0.83	1.42	0.59 †	0.77
Lower skilled laborers	1.04	0.96	0.93	1.01	1.22	1.48	0.96
Unskilled laborers	1.47 *	1.38	1.66	1.33	2.45 *	1.32	1.38
Farm laborers	1.37 †	1.44	0.94	1.65 *	1.96 †	1.46	1.24
Unknown	0.78	0.83	0.72	4.45	1.82	1.24	0.41 †
Religious denomination parents							
Both Liberal Protestant *(ref.)*	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Both Catholic	0.70 **	0.55 **	0.51 **	0.54 ***	1.01	0.77	0.87
Al least one Orthodox Protestant	0.96	0.56 *	1.16	0.84	1.30	0.81	1.24
Mixed	1.40	1.12	1.80	1.63	0.78	1.88	1.62
Other	1.03	1.07	0.74	0.81	1.31	1.01	1.29
Region							
West and Southwest *(ref.)*	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Northwest and North	0.62 ***	0.45 ***	0.34 ***	0.69 *	1.24	0.98	0.60 ***
Eastern sandy soils	0.91	0.76	0.76	0.82	2.13	1.42	0.79
Southern sandy soils and river clay	0.77 †	0.74	0.46 ***	1.10	1.34	0.81	0.63 **
Urban	1.31 †	1.31	2.08 **	1.26	1.10	1.77 *	1.12
Constant	0.19 ***	2.10 *	3.33 **	2.91 **	1.67	1.96 ^	0.94
Nagelkerke R^2	0.05			0.12			

† $p<.10$; *$p<.05$; **$p<0.01$; ***$p<0.001$. *Source*: As in Table 2.

Figure 1 **Proportions experiencing different pathways to adulthood, by birth cohort (N=4651)**