

Geographical pathways of individuals born in France: Construction of a typology

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Abstract – The rise of geographical mobility is an important component of the changing patterns in lifestyles over the past few decades. The *History of Life* survey (*Histoire de vie*, Insee-Ined, 2003), which picks up on all the geographical pathways of the individuals sampled, makes it possible to gain a precise overview of such population movements. Of the individuals born in France and residing in mainland France in 2003, 38% have never left their department and 58% have never left their region of residence. These data also make it possible to construct “standard geographical pathways” using an optimal matching method. Six “standard geographical pathways” emerge for generations born before 1938. A fine-grained analysis of this typology shows that the geographical pathways involving the most mobility are more common in managers, graduates and individuals who have experienced more unstable professional and domestic life trajectories than the average. Lastly, younger generations experience geographical mobility more frequently than their elders.

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Keywords: geographical pathway, optimal matching, typology, generations

Reminder:

The opinions and analyses in this article are those of the author(s) and do not necessarily reflect their institution's or Insee's views.

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Since the 1980s, the theme of geographical mobility has become a highly invested research topic in demographics, geography and sociology. Adopting a historical perspective on the literature dealing with this subject, Jacques Brun (1993) shows that the term “mobility” has gradually (from the 1970s) edged out the term “migration”. This shift in terminology reflects a change in how society sees its connections with space: migration is often considered rare and exceptional, while mobility is more often perceived as commonplace. Many recent contributions deal with the decision-making process behind mobility (Faure, 2009; Bonnet & Collet, 2009) and with explanatory factors for mobility (Debrand & Taffin, 2005; Couet, 2006), or for instance try to model the phenomenon (Courgeau & Lelièvre, 1990). This research agrees on the role of family (couple’s formation and dissolution, birth, widowhood) and professional events (change of job or in the terms and conditions of employment), as well as individuals’ socio-demographic characteristics (age, standard of living, education, employment, household composition and housing occupancy status) in explaining mobility.

A mere change in housing unit can have very different implications for the individuals involved. Courgeau (1980) distinguishes between “residential mobility”, which refers to a change in housing and “migration”, which is also characterised by a significant change in the living environment. Moreover, Debrand and Taffin (2005) show that residential mobility and migration as defined by Courgeau are not explained by the same factors: family factors (the need to occupy an accommodation suited to the needs of the family) and residential (e.g. home ownership) are predominant in the former instance, whereas migration is more often the corollary of professional choices or decisions related to education. These results are confirmed by other research, which shows that a large proportion of long-distance mobility is due primarily to professional reasons (Lelièvre, 1988).

In the context of this study, it will not be possible to follow these conceptual definitions, as the data mobilised does not enable residential mobility to be distinguished from migration (as defined by Courgeau). Changes in housing within a single municipality of residence are not recorded, and there is no information enabling possible changes to the living environment to be assessed. The focus here will be on changes in individuals’ municipality of

residence (the only ones recorded in the data used) which can, depending on the circumstances, imply a change in the living environment. This intercommunal mobility may correspond to residential mobility (i.e. a simple housing change) as well as migration (i.e. a change in the living environment).

While there is ample literature on the subject overall, few studies have aimed to identify and describe standard geographical pathways over the lifecourse. Recently, however, statistical analysis has developed new methods for the study of trajectories (Robette, 2011). More specifically, statistical methods, grouped under the name of sequence analysis methods in which optimal matching plays a central part, now make it possible to identify the regularities and similarities between different trajectories and to infer the construction of typologies in standard sequences. In social sciences, it was Andrew Abbott (Abbott & Forrest, 1986) who started using optimal matching methods to analyse historical processes (Lesnard & Saint Pol, 2004). These methods have been applied to issues relating to geographical mobility such as international migration (Sierra-Paycha, 2014), residential mobility in the metropolis of Dakar (Lessault & Imbert, 2013), trajectories in terms of the social composition of municipalities of residence (Bringé & Bonvalet, 2014) and the professional and geographical trajectories of couples (Lelièvre & Robette, 2010).

This study sets out two objectives. The first is to provide descriptive data regarding changes in individuals’ municipality, as well as department, region and country of residence, and the change in patterns over generations. The second consists of uncovering a typology of geographical pathways by implementing an optimal matching method and describing to the finest degree of detail possible (in terms of socio-demographic characteristics, but also life pathways) the sub-populations that share comparable geographical trajectories. Compared to the work previously mentioned (in particular Lelièvre & Robette, 2010 and Bringé & Bonvalet, 2014) this contribution differs both in terms of its scope (all the individuals born in France) and its approach to geographical pathways (considered since birth and the initial municipality of residence¹).

1. The municipality of residence is defined as the municipality in which the individual resided in the first year of life. It may be different from the municipality of birth.

Six standard geographical pathways have emerged for generations born before 1938: 18% of individuals almost never leave their initial municipality of residence; 47% of individuals leave their initial municipality of residence, but their geographical pathways remain almost entirely within that municipality's department; 13% of individuals leave the department of their initial municipality of residence, but their geographical pathway is almost entirely within the said municipality's region. The remaining 22% of individuals experience longer-term changes in region (8% of individuals leaving the department of their initial municipality of residence, 8% of individuals moving to the Ile-de-France region and 6% of individuals to another region in the provinces).

Sources and sample

This study is based on data from the *Life history* survey (*Histoire de vie*, HDV), resulting from a cooperation between Insee, Ined and several ministerial statistical departments². It was a one-time survey conducted between February and April 2003 in mainland France. 8,403 individuals at least 18 years of age were interviewed. The aim of the HDV survey was to better understand the identity construction processes, in particular in relation with life pathways³. Geographical pathways appear, in the survey, to be a component of individual identity. The questionnaire covers a very broad spectrum of information drawing on interviewees memory of events in their past. In particular, it provides information on individual trajectories in a variety of areas (municipalities of residence, working life, health, family history). To the extent that it is one of the few exhaustive sources on geographical pathways (in the sense that the entirety of the pathway from is covered from birth), the HDV survey provides insight into the research issues dealt with in this contribution.

Other sources could have been used to study geographical mobility. The *Biography and Entourage* survey carried out in 2000 by Ined provides similar information, but its scope pertains only to Île-de-France residents born between 1930 and 1950. Consequently, it covers only those geographical pathways involving the Île-de-France region, and does not allow an overview of geographical pathways across France. Insee's *Permanent Demographic Sample* (EDP) contains information on the

place of residence of individuals from two main sources: *Population Censuses*, known as the *Annual Census Surveys* (EAR) from 2004 on, and the panel study, *Annual Declarations of Social Data* (DADS) on "All Employees", the scope of which has expanded over time, from private sector employees since 1967, then including those of the civil service from the 1980s and more recently those of certain sectors that were not covered initially (agriculture, personal service jobs). Geographical trajectories are therefore incomplete in the intervening periods, particularly as regards non-employees and inactive people. Lastly, the *Family, work and migratory biography* survey carried out in 1981 by Ined, is somewhat too old.

To ensure accuracy in the information about early pathways (places of residence abroad are poorly recorded), the article focuses on individuals born in France. Thus, the 6,726 individuals in our sample all started their geographic trajectory in France. In the HDV survey, each year of life is associated with a municipality of residence⁴. If, for a given year, an individual resides in more than one municipality, he or she is assigned the municipality in which the length of residence was the longest in that same year (referred to as the "predominant municipality"). It is then possible to construct geographical stages, each of which is equivalent to a predominant municipality of residence for a period of at least one year. If the individual resides in the same municipality for several years, the duration of the stage is equivalent to the number of years spent there. For each individual, the HDV survey details all geographical milestones that have marked their lives over the period from birth to the date of the survey (2003). The construction of these stages does not therefore take into account changes in housing within the same municipality or very temporary places of residence (which are defined as non-predominant municipalities for a given year). For each geographical stage (i.e., for each predominant municipality), the survey lists the department and the region where the municipality is located.

2. Several studies detail the process by which the survey was constructed (Crenner et al., 2006; Ville & Guérin-Pace, 2005).

3. Issue 393–394 of the journal *Economie et Statistique* / *Economics and Statistics* contains a great deal of research on this topic.

4. The survey considers within its definition of municipalities all French municipalities as at 1st January 2003. The districts of Paris, Lyon and Marseille are also considered municipalities.

From the semantic point of view, the decision was made – for practical reasons – to assimilate the geographical stage with the (predominant) municipality of residence. From a theoretical standpoint, a geographical stage should be defined more as a significant change in living environment rather than a change in municipality. However, the HDV survey does not provide the information to make the distinction. The underlying assumption is therefore that the majority of the changes in municipality imply a change in living environment.

Describing geographical mobility: Changes in municipality, department, region and country

The HDV survey lists those changes in municipality, department, region and country that are as many milestones along individual geographic pathways. In contrast to some research (Baccaïni, 1993), which focuses solely on residential pathways from adulthood (which can be defined as starting at age 15, 18, 20 or even 25), it is the aim here to study all geographical pathways since the individuals' birth until the time of the survey. This will allow to understand the diversity of the territories visited (in the sense that each individual has experienced at least one geographical stage in a given territory) over the lifecourse. Some of the changes mobility associated to an individual will in fact be the consequence of parental geographical choices (for example, changes in municipality during childhood). The individuals in our sample are of widely-differing ages at the time of the survey (between 18 and 97 years) and are not observed at the same time of their life cycle. For this reason, some indicators will then be presented by age.

In 2003, individuals born in France and age 18 or above had experienced 3.4 changes in municipality

On average, an individual born in France and age 18 or above in 2003 has changed municipality of residence just over three times (3.4 times)⁵. By extending the scope to all changes in housing, and limiting the focus to the number of people at least 15 years of age, Baccaïni (1993) reached an average of 4 residential moves in generations born between 1911 and 1938. This average hides a number of disparities, however, in particular depending on the age of individuals: the distribution

is much denser to the right in the “30-49” and “above 50” brackets than in those ages 18-29 (Figure I). This finding combines both an age effect (an older person is more likely to have changed municipality of residence) and a generation effect. It can also be noted that more than 12% of our sample has never left its original municipality of residence. This proportion ranges from 22% among individuals under 30 to 6% for those between ages 30 and 49. These results are in line with the conclusions of the *Triple biography* survey (Ined, 1981), which results in a slightly higher figure (around 15%), even though it pertains to older generations and is therefore not directly comparable (Baccaïni, 1993).

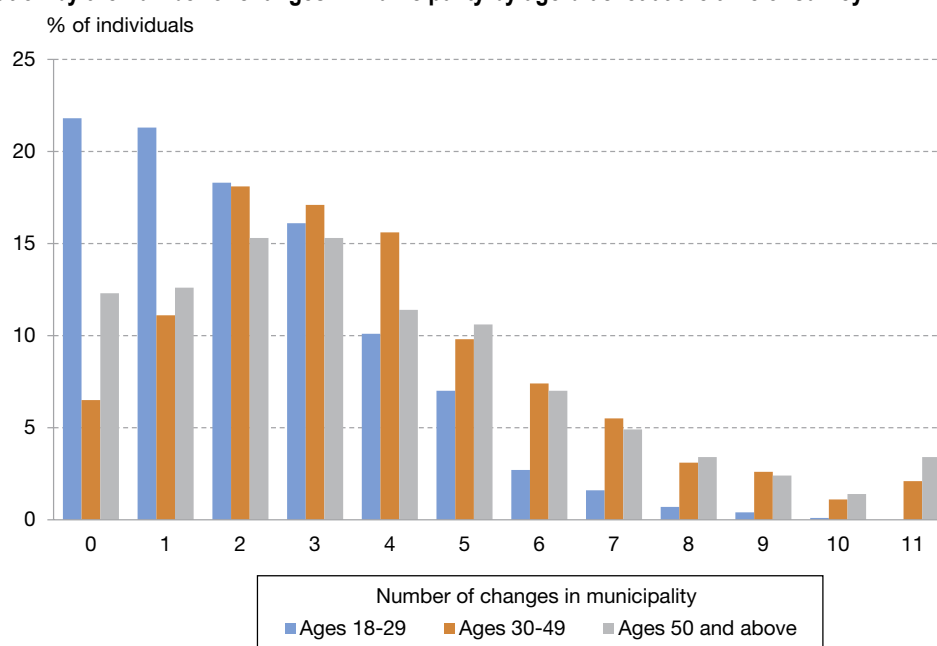
Changes in department: High pathway redundancy

Compared to changes in municipality, which may take place over very short distances, changes in department usually involve a change in living environment. Two indicators can be contrasted to interesting effect: firstly, the number of changes in municipality that led to a change in department; and secondly, the total number of departments of residence over the course of an individual's life. These two variables do not always coincide. For example, an individual born in Paris, who moves to Marseille before returning to Paris and then returns to live in Marseille, will be reported to have resided in just different departments (Paris and Bouches-du-Rhône), when three of the said changes in municipality actually led to a change of department. While the total number of changes in municipality leading to a change of department is a good indicator of the intensity of geographical mobility, the number of departments of residence informs as to the size of the living environments involved.

38% of the individuals in our sample have never left their first department of residence (Table 1). Moreover, the destination departments are often the departments in which the individuals have already resided during their lifetime. For example, among the individuals

5. The statistical results presented in this study are computed using the weightings provided with the survey. They correct for the over-representation of certain populations over-sampled in the survey (disabled, immigrants, and children of immigrants).

Figure I
Distribution by the number of changes in municipality by age bracket at the time of survey



Scope: 6,726 individuals born in France, residing in mainland France and at least age 18 in 2003.

Sources: Insee-Ined, *History of Life* survey, 2003.

who have experienced two events of mobility, each involving a change in department, almost 70% of them actually returned to their home department during their second departmental mobility. This clearly shows that geographical pathways are very

often redundant in the sense that individuals often return to departments in which they have already resided in the past. These return trips between departments appear to be an essential characteristic of mobility in France.

Table 1
Changes in department and number of different departments in which an individual has resided (in the sense of having experienced a geographic stage there)

In %

Number of different departments of residence	Changes in department							Total
	0	1	2	3	4	5	6 and above	
1	37.8	0.0	0.0	0.0	0.0	0.0	0.0	37.8
2	0.0	13.6	13.5	2.6	1.2	0.6	0.0	31.3
3	0.0	0.0	5.8	5.3	2.7	1.0	0.5	15.4
4	0.0	0.0	0.0	2.5	2.6	1.7	1.5	8.3
5	0.0	0.0	0.0	0.0	1.2	1.3	1.5	4.0
6 and above	0.0	0.0	0.0	0.0	0.0	0.0	3.0	3.0
Total	37.8	13.6	19.3	10.3	8.0	4.6	6.5	100

Note: The departments considered in the survey align with the configuration of the French departments at the time of the survey (early 2003). In particular, Mayotte was not yet a department.

Reading note: over the sample as a whole, 19.3% of individuals have changed department 2 times in their lifetime and thus have resided at most in 3 different departments. 13.5% of individuals have changed department 2 times, but have resided in only 2 different departments over the course of their lives.

Scope: 6,726 individuals born in France, residing in mainland France and at least age 18 in 2003.

Sources: Insee-Ined, *History of Life* survey, 2003.

Changes in region are infrequent

What is observed for inter-departmental migration also appears to be valid for inter-regional migration. 58% of individuals in our sample have never left the first region in which they resided (Table 2). Changes in region therefore remain relatively rare. Likewise, inter-regional migration is also highly redundant. For instance, out of those individuals who have moved to another region twice during their lives, the second mobility involving a change in region is actually a return to the region of origin in almost 70% of cases. Return trips between regions are therefore very common.

Most of the changes in municipality (45%) are carried out at intra-departmental level and can in fact pertain to very close municipalities. About a quarter of these changes in municipality (28%) lead to a change in region and another quarter (26%) in a change in department within the same region. Using another source⁶, Debrand and Taffin have similar results for the period 1984–2002 (Debrand & Taffin, 2005).

More frequent moves abroad at the start of adult life and destination choices connected with France's history

While individuals residing abroad at the time of the survey do not appear – by construction – in the sample, the HDV survey records stays abroad lasting at least one year for all individuals interviewed. Out of the

29,750 geographic stages listed in the survey, 1,089 took place abroad and can be identified with a single country⁷. They last on average 3.1 years and pertain to 993 individuals, i.e. 14.3% of the sample. They take place on average at age 20.9 and nearly 90% of them started before age 30.

The destination countries of these stages abroad are closely intertwined with the Nation's history. Colonisation and the colonial wars⁸ explain that geographical stages abroad are concentrated strongly in the Maghreb, Africa and Asia (50% of them) (Figure II). The predominance of European destinations (43%) is probably the upshot of geographic proximity. A dynamic study of these stages abroad highlights the decline in the number of destinations of military or colonial nature such as the Maghreb and Asia, regions of the world where the former French colonies were located (which respectively accounted for 52% and 7% of the stages abroad for the people of the generations 1930-1939, compared with 5% and 4% for those of generations 1960-1969). In contrast, there is a clear rise in regions of the world such as North America or Europe where migration related to professional activity and education is concentrated (their respective shares increase from 2% and 26% to 12% and 61% in the same generations).

6. Insee, *Housing Surveys*.

7. For certain moves abroad, the individual may report having resided in several different countries (including France).

8. Mainly the Indochina Wars (1946–1954) and the Algerian War (1954–1962).

Table 2
Number of changes in region depending on total number of different regions in which an individual has resided (in the sense of having experienced a geographical stage there)

Number of different regions of residence	Changes in region					Total	In %
	0	1	2	3	4 and above		
1	58.0	0.0	0.0	0.0	0.0	58.0	
2	0.0	14.4	10.6	0.7	0.3	26.0	
3	0.0	0.0	4.5	3.4	1.8	9.7	
4 and above	0.0	0.0	0.0	1.4	4.8	6.2	
Total	58.0	14.4	15.1	5.5	6.9	100	

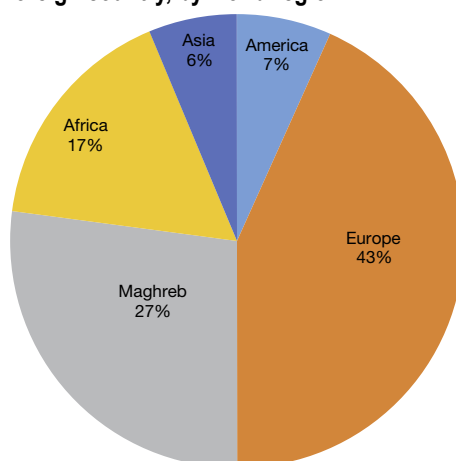
Note: the regions considered in the survey matched the configuration of the French regions at the time of the survey (early 2003), i.e. before the territorial reform that came into effect on 1st January 2016.

Reading note: over the sample as a whole, 15.1% of individuals changed region 2 times in their lifetime and thus have resided in at most 3 different regions. 10.6% of individuals have changed region 2 times, but have only resided in 2 different regions over the course of their lives.

Scope: 6,726 individuals born in France, residing in mainland France and at least age 18 in 2003.

Sources: Insee-Ined, *History of Life* survey, 2003.

Figure II
Geographical stages spent in a foreign country, by world region



Reading note: out of all the geographical stages that can be identified with a country, 43% took place in a European country.
Scope: 1,069 geographical stages abroad that can be identified with a single country. These stages involved 993 individuals born in France, residing in mainland France and at least age 18 in 2003.
Sources: Insee-Ined, *History of Life* survey, 2003.

Increasing geographical mobility over generations

The most recent generations (1960-1969) experience more geographical mobility than their elders (1920-1929) (Figure III and Box 1). Generally speaking, the younger a generation, the more it has experienced changes in municipality and region at a given age. However, the 1940-1949 and 1950-1959 cohorts are exceptions: the 1940-1949 cohort

is slightly more mobile than the next generation. The mobility gaps between these cohorts, very low at the age of 20, increase at age 30 before stabilising. This finding encourages us not to conclude to a uniform increase in the intensity of mobility in generations. It also matches the conclusions of Debrand and Taffin (2005), who highlight a steady but well-known increase in the mobility rate over the period 1980-2002 (with, for example, a decrease in the 1990s).

Box 1 – Studying geographical mobility over generations with the HDV survey

To study the influence of generation effects on geographical mobility, six cohorts were built according to the birth dates reported by the individuals in our sample. Several mobility indicators were analysed: the number of changes in municipality and region

depending on age. Cohort construction and, in particular, the choice of a 10-year interval was determined to face a sample size requirement. For purposes of clarity, cohorts were designed from a rounded age (Table A).

Table A
Cohort construction for studying mobility over generations

Year of birth	Number in cohort	Average age at time of survey
1920-1929	517	77.1
1930-1939	753	67.7
1940-1949	1 086	57.1
1950-1959	1 370	47.8
1960-1969	1 327	37.8
1970-1979	1 035	27.9

Coverage: 6,088 individuals born in France.

Reading note: in the sample of individuals born in France, residing in mainland France in the survey *History of life*, 517 people were born between 1920 and 1929. At the time of the survey (in 2003), their average age was 77.1.

Sources: Insee-Ined, *History of life* survey, 2003.

Figure III
Number of changes of municipality and region, by age in generation



Scope: 5,053 people born in France, by generation.
Sources: Insee-Ined, *History of Life* survey, 2003.

To take into account possible structural effects – for example, the individuals of the 1920-1929 generation present in our sample are more often women because of the difference in life expectancy with men – an econometric modelling of the probability of a change in commune between 25 and 30 years old is proposed (logistic regression). The choice of this age group proceeds from the previous descriptive results: it is between 25 and 30 years that most of the differences in mobility between generations are concentrated. The cohort indicators are the explanatory variables of interest. Control variables are also introduced to account for structural effects (gender, marital status, PCS, and education). The choice of the 25- to 30-year interval also makes it possible not to include changes in municipalities that took place during World War II (between 1939 and 1945)⁹. Changes in municipalities that took place during the Algerian War (1954-1962) were excluded from the model¹⁰. Both these events led to massive mobilities for some cohorts, and it seemed important to distinguish in the evolution of mobility what results from a structural trend, stemming from the behaviour of households, from that which relates to situational factors. In practice, such a model is equivalent to reconstructing a counterfactual of what geographical mobility would have been for the different generations if the society's structural characteristics

(breakdown by PCS, by educational category, historical events) had remained constant over generations.

The logistic model confirms the results of the descriptive analysis: it shows a lower likelihood of mobility between ages 25 and 30 for individuals from the oldest generations, even if the mobility gaps between people of the 1960-1969 generation and those of the 1940-1949 generation are not significant (Table 3). These results provide information on the long-term evolution of geographical mobility: the younger generations are more mobile than their elders.

Six “standard geographical pathways” emerge for generations born before 1938

In order to group the geographical pathways having the most similarities, an optimal matching method is implemented (see Box 2). Each year of a pathway is characterised by its geographical proximity with the original municipality of residence. Each year is assigned one of the following modalities:

9. The oldest people in our sample were born in 1920. They reached age 25 in 1945, after the World War II.

10. In practice, changes in municipality occurring between 1954 and 1962 and involving a municipality (whether the arrival or departure municipality) located in Algeria were excluded from the estimate.

Table 3
Impact of generation effects on the likelihood of changing municipality between ages 25 and 30, estimate based on a logistics model

Generations	Parameter estimated (estimated standard deviation)	Odds ratio
1920-1929	-0.67*** (0.16)	0.51
1930-1939	-0.52*** (0.13)	0.59
1940-1949	-0.18 (0.13)	0.83
1950-1959	-0.27** (0.12)	0.76
1960-1969	Reference	Reference

Note: parameters resulting from the estimation of a logistics model, the explained variable of which is 1 if the individual has experienced a change in the municipality of residence between ages 25 and 30 and 0 otherwise. The parameters associated with the control variables have not been listed. The resulting control variables applied are: gender in the form of an indicative variable for women, an indicator that is worth 1 when individuals reported having lived in a couple at least once over the course of their lives, SOC in the form of indicator variables for farmers, manual workers, office workers, craftspersons and managers, intermediate professions are the reference modality (the SOC used is reported by the individual at the time of the survey; retirees are assigned the SOC of their last position), the highest degree earned by the individual in the form of indicators in the primary cycle, the secondary cycle, vocational education and the higher education (the Baccalaureate level if the benchmark modality).

***significant at the 1% threshold, ** at the 5% threshold and * at the 10% threshold.

Reading note: being born between 1920 and 1929 multiplies by 0.51 the likelihood of mobility between ages 25 and 30 (or divides it by 1.96), relative to the generation born between 1960-69.

Scope: 5,053 people born in France between 1920 and 1969.

Sources: Insee-Ined, *History of Life* survey, 2003.

- 'Initial municipality of residence'. This municipality is the individual's predominant municipality of residence in the first year of life.

- 'Department of the initial municipality of residence' where the municipality of residence is a municipality other than the original municipality of residence but is located in the same department¹¹.

- 'Region of the first municipality of residence' if the department is a department other than that of the original municipality of residence but is located in the same region. The regions considered here are those that prevailed at the time of the survey (2003), i.e. before the territorial reform implemented on 1st January 2016. Since the HDV survey was conducted prior to that date, it seemed the former division made the most sense for respondents.

- 'Region neighbouring the region of the original municipality of residence' if the municipality of residence is located in a region neighbouring the region of the original municipality of residence.

- 'Île-de-France region' if the municipality of residence is located in Île-de-France and provided that it is not the first region of residence.

The 'Île-de-France region' modality prevails over the 'Region neighbouring region of the region of residence' modality. The aim is to isolate the specificities of the pathways going through the region. This choice seems sensible for two reasons. Firstly, the rural exodus has long been an important component of geographical pathways. Secondly, a great deal of research shows that Île-de-France occupies a specific place in the geographical pathways, particularly at the time of the studies or the entry into working life (Baron & Perret, 2006; Degorra, 2015).

- 'Other region' if the municipality of residence is located in a French region that is neither the region of the original municipality of residence nor a region adjacent to it, nor the Île-de-France region.

- 'Foreign' if the individual reports residing abroad.

This classification based on the administrative boundaries of the territory is not entirely satisfactory. To truly grasp a living space in the broadest sense, it would have been preferable to mobilise other geographical delineations

11. The departments considered in the HDV survey align with the configuration of the French departments at the time of the survey (early 2003). In particular, Mayotte was not yet a department.

such as living basins, employment zones or possibly urban areas. Moreover, mobility between two municipalities of neighbouring regions will be interpreted as a major change, even if the distance between the two municipalities concerned is very short. Unfortunately, information about these zoning distinctions and distances between municipalities is not available in the HDV survey. In order to work with pathways of the same length, i.e. covering the same number of years (which is preferable when implementing optimal matching), the sample was restricted to individuals aged 65 years or above at the time of the survey (2003), i.e., generations born before 1938. The geographical pathways studied thus spread over the period from the individual's birth to age 65. As such, they are truncated to the right. The age-65 threshold was chosen to reconcile the concurrent need for adequate sample size and

representativeness, on the one hand, and the benefit of having almost complete geographical pathways. Taking a higher age limit would lead to a reduction in the size of the sample and reduce its representativeness, particularly because of the differential mortality between men and women and between social classes. At the same time, the 65-year threshold, beyond which almost all of the generation born before 1938 is retired, is sufficiently high to take advantage of possible geographical mobility at the time of entry into retirement¹². A great deal of research has highlighted the importance of mobility at this pivotal stage of life (Caradec, 2010; Cribier & Kych, 1992). In addition, by restricting the sample to individuals for whom

12. For these generations, the age of 65 is that at which retirement pension is automatically paid at full rate. At that age, almost all individuals have wound up their pensions.

Box 2 – Optimal matching applied to geographical pathway analysis

Optimal matching methods are designed to build a typology of sequences, similar to geographical pathways. In the sample considered, resulting from the *History of life* survey (2003), for each individual, and for each year of life, the predominant municipality of residence has been identified. Geographical position is characterised by the original municipality of residence. For example, assuming an individual lived the first two years after birth in the initial municipality of residence ('PC' below) before moving to another municipality in the same department ('CD') and remained there for 3 years, the pathway will read:

PC	PC	CD	CD	CD
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Optimal matching then proceeds in two stages. In the first, a distance is constructed between the pathways. In the second, geographical pathways showing similarities are grouped using a classification method.

Stage I: construction of the distance between pathways

The distance between two pathways depends on the operations needed to transform one to the other. To transform a pathway, one of two operations can be performed:

- integration-deletion operations, that consist of adding or deleting a component of the pathway (referred to as *indel*);
- substitution operations. In such operations, one component of the pathway is replaced by another.

To transform a pathway into another, many combinations of operations, known as paths, can be used.

Optimal matching is based on identifying all possible paths for a given transformation. The idea is then to assign a cost to each operation. Each pathway enabling the transformation of a pathway into another is associated with a total cost that corresponds to the sum of the costs associated with each necessary operation. Optimal matching provides the minimum cost. The distance between two pathways is then equal to the lowest overall cost out of all possible paths. The central element of the method is then based on the costs setting (Lesnard & Saint-Pol, 2004). The *indel* and substitution costs may depend on the modalities they entail (for example, deletion of a PC component may not be associated with the same cost as deleting a CD component).

Stage II: classification

This stage consists of forming classes using classification methods such as ascending hierarchical classification.

The parameter setting retained is based on a standard approach in the literature: the level of *substitution* costs is set based on the empirical transition probabilities between the modalities on a basis equal to 2. The substitution cost between two methods is equal to 2, minus the probability of empirical transition between these methods (the higher this probability, the lower the cost). The *indel* costs are arbitrarily set at 1.1. This choice follows the recommendations of Lesnard and Saint-Pol (2004) and Robette (2011): in order to favour the succession of modalities rather than their simultaneity, it is preferable to prioritise the *indel* costs. These parameters could have been set differently, however the tests carried out show that the result is robust to these choices. To construct the classes, an ascending hierarchical classification using the Ward method is implemented.

the geographical pathways are fully covered, our field of study encompasses 1,185 individuals. Because of the gender differential in mortality at the highest ages, the sample includes a higher percentage of women than the overall population (58% women) and its sociodemographic structure is distorted to the disadvantage of the categories most exposed to mortality at advanced ages (only 17% of blue-collar workers). Lastly, graduates and managers are overrepresented in our sample, while much research has brought out their greater propensity to mobility (Couet, 2006). These various factors may bias the results.

The optimal matching method results in a six-class construction (Table 4) for which the main socio-demographic traits are specified. Out of the variables chosen to characterise them are demographic indicators such as age, gender or family structure, but also socio-economic information such as the education level and socio-professional category relating to the last job held by the respondent. In order to reconstitute the geographical pathways within the life pathways, variables relating to the number of job-related changes and marital separations were added. Job-related changes include both changes in profession, professional status (changes in the conditions of professional activity), and professional positions listed in the HDV survey (whereby the date on which these changes occurred is also known). Marital separations are those having occurred in live-in relationships lasting more than one

year. Many studies have shown that residential and professional mobility often go hand in hand (Lelièvre, 1988). In *Triple Biography* nearly 30% of the grounds for mobility stem from professional issues (Baccaïni, 1993). Similarly, the results of an investigation conducted by Ined in 1985 highlighted the correlation between divorce and mobility (Festy, 1988).

From the “immobile” to the “mobile to distant regions in the provinces”

Individuals in class 1 (18% of the weighted sample)—referred to here as “immobile”—leave their original municipality of residence only very episodically (Figure IV-A). The cumulative duration in the other modalities is only a very small fraction of the 65 years of life studied. These individuals account for almost 18% of the sample. This proportion is comparable to the result obtained by Couet (2006) based on EDP data which shows that approximately 20% of the individuals found in the five censuses of 1968, 1975, 1982, 1990 and 1999 and ages 24 to 40 in 1968 have always reported the same municipality of residence. The standard portrait of the “immobile” individual is usually that of a woman whose education is most frequently at the primary level (Table 5). Farmers are also largely over-represented. On average, these individuals experience more stable pathways than the average: they have experienced fewer marital separations and job-related

Table 4
Summary of the geographic pathway typology

Class	Name	Total numbers (% of the weighted sample)	Key socio-demographic features	Average number of geographical stages before age 65
1	Immobile	195 (18)	Women, primary education, farmers, stable pathways, inhabitants of Brittany	1.15
2	Mobile at the departmental level	565 (47)	Representative overall of the sample	4.56
3	Mobile at regional level	152 (13)	Managers, intermediate professions, career paths, Ile-de-France residents	5.45
4	Mobile to neighbouring region	100 (8)	Men, managers, intermediate professions, graduates	5.57
5	Mobiles to the Île-de-France region	87 (8)	Women, managers, office workers, graduates, Breton origins and the Paris basin	6.66
6	Mobiles to a remote region in the provinces	86 (6)	Men, office workers, intermediate professions, graduates, unstable pathways	6.79

Reading note: Class 1 includes 195 individuals, i.e. 18% of the weighted sample. These are mostly women, farmers and individuals whose level of education is classified as primary education and whose individual pathways in the professional and family areas are more stable than the average. These individuals have experienced on average 1.15 geographical stages before reaching age 65.

Scope: 1,185 people born in France and age 65 or above at the time of the survey.

Sources: Insee-Ined, *History of Life* survey, 2003.

changes than the average. In geographical terms, these individuals' initial municipality of residence is more often than the average found in Brittany, Champagne-Ardenne or in the regions of the South such as Auvergne, Limousin or Midi-Pyrénées.

Individuals in class 2 (47% of the weighted sample), the “mobile at the departmental level”, have in common to have left their original municipality of residence to establish themselves in another municipality in the same department (figure IV-B). This mobility occurs most often before age 30, with a peak between ages 20 and 24, at which time they enter higher education or a first job (Appendix, Figure A-I). The geographical pathways unfold almost entirely at the departmental level. The average length of time spent in a municipality outside the original department of residence is 3 years and the related geographical stages often come shortly after age 20. Episodes spent outside the original department of residence share the characteristic of brevity. This class is by far the largest in number, accounting for 47% of geographical pathways. The individuals in this class are generally representative of the sample (Table 5). Similarly, in geographical terms, the regions of residence between which these individuals are divided up at age 65 are close to the distribution observed across the sample.

Individuals in class 3 (13% of the sample sample), referred to here as “mobile”, have left their initial municipality of residence before age 30 and gradually migrated to another municipality in the same region but located in another department (figure IV-C). These mobilities usually take place between ages 20 and 24, but are also frequent during childhood (28% take place before age 15) (Appendix, figure A-II). The geographical pathways here unfold primarily at the regional level. A departmental stage is observed (residence in a municipality other than the original municipality of residence but located in the same department) for 42% of the people in the class, characterised by a relatively short duration (under 4 years). It also means that for almost 60% of the individuals in a given class, there is no departmental stage and that the individual migrates directly from their original municipality of residence to a municipality located in another department in the region. Most of these geographical pathways unfold in the same region as the original municipality, but in another department (44 years out of

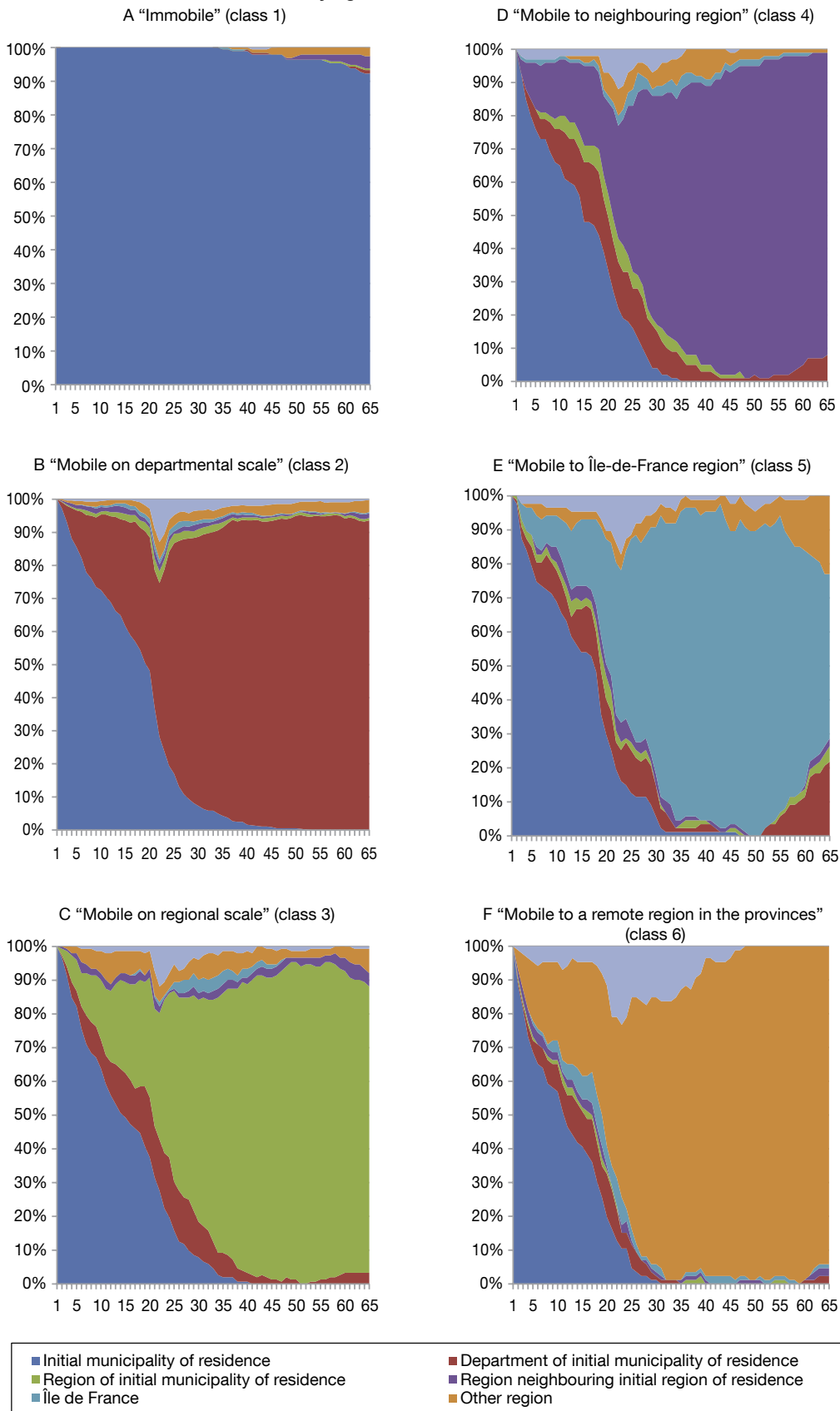
the 65). The average pathway¹³ for individuals in this class is as follows. They live in their original municipality of residence until the age of 21, before settling in another municipality in the region but located in a different department. Subsequently, they do not return to their original department of residence but remain, for the majority, in the same region. This class overrepresents managers, intermediate professions and graduates of higher education, at the expense of farmers and workers (see Table 5). The regions affected by these migration pathways are primarily in Île-de-France (41% of people in the class are Île-de-France residents at age 65), and the Rhône-Alpes region (9%). The Île-de-France region – the departments of which have a reduced surface area – is more conducive to these pathways, as a change in department may appear less significant than in another region. Class 3 individuals experience more job-related changes than average. They also have more unstable family lives than the average and are more mobile in terms of changes in municipality.

Individuals in class 4, the “mobile to a neighbouring region” (8% of the weighted sample) have in common to have left their initial municipality of residence before age 35 and migrated to a region bordering their initial region of residence (figure IV-D). The age of arrival in this adjoining region is most often after 20, either during youth or later during adult life (25% after age 30, see Appendix, figure A-III). Subsequently, these individuals' geographical pathways go only very episodically beyond the regions bordering the initial region of residence, even though a fraction of them (8%) can be seen returning to the department of origin. Individuals in class 4 are most often men, managers or intermediate professions and graduates of higher learning (Table 5). They experience more geographical mobility and have more children than the average. They account for 8% of the sample.

Individuals in class 5, those “mobile to the Île-de-France region” (8% of the weighted sample) left their initial municipality of residence before age 30 and migrated to the Île-de-France region (figure IV-E). The age of arrival in the Île-de-France region is usually under 40, with a peak at the time of youth and the start of adult life (Appendix, figure A-IV). After age 50, they split into three groups: some

13. In other words, this is the pathway that associates each age with the most common modality within the class.

Figure IV
Distribution of individuals in each class by age



Reading note: the charts show at each age the proportion of individuals in each class covered by each of the modalities.
Scope: individuals born in France and above age 65, belonging to each class (class 1: 195 observations, class 2: 565, class 3: 152, class 4: 100, class 5: 87, class 6: 86).
Sources: Insee-Ined, *History of Life* survey, 2003.

remain in the Île-de-France region (around 50%), others go back to their region or department of origin (about 25%), and lastly, others establish themselves in another region (around 25%), most often in the regions of the South (Provence-Alpes-Côte d'Azur, Aquitaine or Languedoc-Roussillon), or West (Brittany). These regions are among those with the most positive migratory balance in recent decades (Baccaïni, 2007). This finding coincides with that of Kych and Cribier (1992), who show, based on a survey of 1,370 Parisians having retired in 1972, that a third of them leave the Paris urban area for a reason that is closely or remotely related to the end of working life. While the age of 50, the time at which these moves begin, appears desynchronised with the timing of the end of professional activity (which occurs at age 60), research has shown that future retirees tend to anticipate the end of

their working life in their residential choices (Dubujet, 1999). Shifts through other modalities (than Île-de-France and the initial municipality of residence) are relatively frequent within this class. 48% of the individuals in the class had at least one stage in another municipality in their original department of residence and 46% in another region. However, the duration of these stages is short (less than 4 and 1 year respectively). While the individuals involved in these pathways are relatively marginal in the sample (8%), they show specific sociodemographic characteristics: they are most often women, managers, intermediate or employed professions, and graduates of higher education (Table 5). They were most often born in Western or Parisian regions (Brittany, Picardie, Normandy and the Centre are over-represented). These individuals were also particularly mobile in geographical terms and

Table 5
Socio-demographic characteristics of the individuals in the six classes

Variables	Class 1	Class 2	Class 3	Class 4	Class 5	Class 6	Total sample
Age (in years)	74.4	73.8	72.9	74.3	74.0	73.5	73.8
Sex (%)							
Male	32.5 ***	44.8 *	42.9	49.1 **	26.4 ***	52.6 ***	41.5
Female	67.5 ***	55.2 *	57.1	50.9 **	73.6 ***	47.4 ***	58.5
Family life							
Number of separations	0.24**	0.29	0.35**	0.31	0.27	0.34**	0.29
Number of children	2.43	2.51	2.29*	2.87**	2.16***	3.07***	2.50
SOC (%)							
Farmer	40.3 ***	20.3	7.5 ***	6.7 ***	0.0 ***	0.9 ***	18.4
Independent	10.7 **	16.8 *	15.7	15.0	9.9 **	11.4 **	14.5
Manager	4.2 ***	8.4 *	18.6 ***	15.3 **	21.5 ***	14.0 *	11.0
Intermediate occupation	4.7 ***	10.5	18.2 ***	25.4 ***	15.3 **	22.7 ***	11.2
Office worker	18.6 **	21.9	24.0	19.1 *	30.6 ***	30.5 ***	22.6
Manual worker	14.3 **	19.3	13.1 **	17.5	21.7 **	17.2	17.5
Inactive	7.2 **	2.9	2.9	0.8 **	1.1 **	3.4	3.4
Changes in occupation	1.07***	1.76	2.05**	1.67	2.27***	2.17**	1.73
Degree (%)							
Primary studies	73.4 ***	58.7	46.5 **	52.5	35.4 ***	31.4 ***	55.8
First cycle of secondary school	9.4 **	5.6 **	13.0	15.4	15.7	18.9 **	13.0
Vocational education	10.0 **	15.7	18.2 **	5.9 ***	17.9 **	17.8 **	13.6
General Baccalaureate	5.4	5.4	8.6 *	6.1	2.1 *	15.2 ***	6.4
Higher education	1.4 ***	6.8 **	13.7 **	20.1 ***	26.8 ***	16.6 **	10.0
Geographical mobility	0.15***	3.56	4.45***	4.57***	5.66***	5.79***	3.44

Note: *** significant at the 1% threshold, ** at the 5% threshold and * at the 10% threshold for the average equality test with the whole sample.
Reading note: out of the Class 1 population, 32.5% are men, whereas the latter account for 41.5% of the sample.
Scope: 1,185 people born in France, residing in mainland France and age 65 or above at the time of the survey.
Sources: Insee-Ined, *History of Life* survey, 2003.

nearly one-third of them have resided at least one year abroad (compared with only 8% in the sample). Class 5 individuals also experience intense mobility in profession in place of residence. A recent study on a sample of Île-de-France residents revealed a similar profile, emphasising that these were individuals who arrived in the Île-de-France region between ages 25 and 30¹⁴ and who establish themselves first and foremost in the suburbs (immediate or outer suburbs) rather than in Paris itself (Morand *et al.*, 2012).

Individuals in class 6, the “mobile to a remote region” (6% of the weighted sample) have left their initial municipality of residence before age 20, and migrated to a regional province that is not adjacent to their initial region of residence (figure IV-F). Mobility to this new region has most often occurred during childhood (50% take place before age 20) or at the time of youth or the start of adult life (Appendix, Figure A-V). Most of these geographical pathways take place outside the initial region of residence in which the individuals in the class reside on average for only 15 years, compared to 47 years in non-neighbouring regions. Relatively few individuals in this class have experienced a departmental or regional stage (under 20%). Unlike class 5 individuals, the return to the department or the initial region of residence is not seen in Class 6 individuals. These pathways are relatively marginal in that they pertain to only 6% of the sample. Individuals in this class are most often men, employees, intermediate professions or managers, and graduates of higher education (Table 5). They also have a more unstable family and professional lives than the average. In addition, their geographical trajectories point to intense mobility: on average, they have experienced 5.8 changes in municipality before age 65 (compared with 3.4 for the sample as a whole). The sub-population of Class 6 also has more children than the sample average (average of 3.07 children compared to 2.5 for the sample as a whole). Almost half of these individuals experienced a geographical stage abroad before age of 65 (compared to 8% for the sample as a whole). At age 65, individuals in this class mainly live in the regions often considered the most attractive: Provence-Alpes-Côte-d’Azur (21%), Languedoc-Roussillon (10%), Midi-Pyrénées (10%) and Aquitaine (7%).

Immobile individuals highly attached to their place of residence and more distant Île-de-France neo residents

The construction of a typology of geographical pathways is likely to shed new light on the question of ties between these pathways and the subjective relationships which individuals develop with places. The causality can be two-fold. The emotional bond with a place can influence residential location decision-making. Reciprocally, the geographical pathway will undoubtedly play a role in constructing the subjective relationship with places.

Individuals in the least mobile classes (Classes 1 and 2, which encompass individuals whose geographical pathways are mainly in the same department) are both those who would most regret a prospective departure from their current region of residence and those most attached to their place of residence (Table 6). Conversely, the “immobile” are also those who are the least likely to be attached to a place other than their place of residence (less than 15% compared with 28% for the whole sample). This result is probably the corollary of a less varied geographic pathway. On the contrary, individuals in Classes 4, 5 and 6, who are the most mobile in the sample (on average more than four geographical stages before age 65) are those who would regret the least the departure from their current region of residence. Even in these classes, however, still almost 60% of individuals say they would regret such a departure. Individuals whose pathways have been labelled “mobile to the Île-de-France region” (class 5) have a distinctive response behaviour. They are the ones who would regret a departure the least (only 58% compared with 80% for the sample as a whole), even though paradoxically 60% declare themselves to be attached to their place of residence. Individuals in Classes 3, 4 and 6 who have in common to have changed department before age 65 are the least attached to their place of residence. Symmetrically, they are also those most often attached to another location. These few results are consistent with the ties highlighted by France Guérin-Pace between the territorial component of identity and the geographical pathways of individuals (Guérin-Pace, 2006a, 2006b and 2009).

14. The authors describe them as “later-life Ile-de-France dwellers.”

A typology valid also for younger generations

The first part of this study showed that younger generations are more mobile than their elders when it comes to geographical mobility. This result leads to the next question: to what extent can the typology established for a sample of individuals born before 1938 be applied to the population as a whole?

Analysis of geographical pathways poses a recurring problem: to study them in their entirety, these pathways must be complete or at least well-underway, making it difficult to carry out studies on the most recent generations. The following methodology was chosen. The sample used so far, containing individuals born before 1938, was kept. A second sample limited to individuals born between 1950 and 1958 was built (Table 7). A new capping threshold, set at 45 years, was defined for geographical pathways. The same optimal matching method was used, based on the set formed by the two samples. The choice of years of birth and the age limit obeys a triple constraint. First of all, the constraint of observing trajectories long enough for geographical pathways to have already started to take shape (in particular, optimal matching is sensitive to the succession of modalities, and it is therefore important that the pathways have stabilised after the mobility that took place during the youth), hence the decision to set the threshold

at 45 years (and to keep only those born before 1958). Secondly, maintaining a sample with sufficient size so that the results are reasonably robust (hence the decision to extend the range of years from birth, in the second sample, to at least 1950). Lastly, ensuring that the cohorts represented in each sample are sufficiently distant in terms of years of birth in order to be able to bring out any significant intergenerational differences between geographical pathways (hence the decision to set the years of birth in the second sample between 1950 and 1958). The gap between the average ages of the two samples is 25 years (Table 7) that is, approximately one generation.

The classes derived from the optimal matching are the same in terms of interpretation and reading of pathways as those of the first sample. The breakdown between classes in the two samples then provides information about a possible distortion of the geographical pathways between cohorts¹⁵.

The proportion of “immobile” individuals decreases sharply between the two cohorts, increasing from 20% for individuals born before 1938 to 9% for those born between 1950 and 1958 (Figure V). The proportion of individuals named “mobile to remote regions”

15. The breakdown of individuals born before 1938 between the different classes differs slightly from the results presented above because the pathways are truncated at 45 years.

Table 6
Geographical pathways and subjective experience of place

Class	Name	(% of the weighted sample)	% of people who would regret leaving	% of individuals attached to the place of residence	% of individuals attached to a place other than the place of residence
1	Immobile	(18)	86.4	81.7	14.5
2	Mobile at departmental level	(47)	83.8	62.9	28.2
3	Mobile at regional level	(13)	79.0	53.2	35.7
4	Mobile to neighbouring region	(8)	67.3	48.7	41.2
5	Mobile to the Île-de-France region	(8)	58.2	60.0	32.9
6	Mobile to a remote region in the provinces	(6)	77.6	51.2	34.3
Total sample		(100)	79.9	63.0	28.5

Reading note: Out of the individuals in class 1, 86.4% stated they would regret having to leave their region.
Scope: 1,185 people born in France, residing in mainland France and age 65 or above at the time of the survey.
Sources: Insee-Ined, *History of Life* survey, 2003.

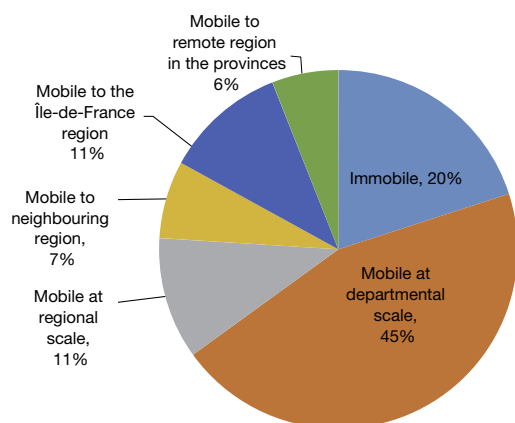
Table 7
Construction of samples for studying geographical pathways over generations

	Year of birth	Number of observations	Average age at the time of survey
Sample 1	Before 1938	1,185	Age 73.8
Sample 2	1950-1958	1,217	Age 48.7

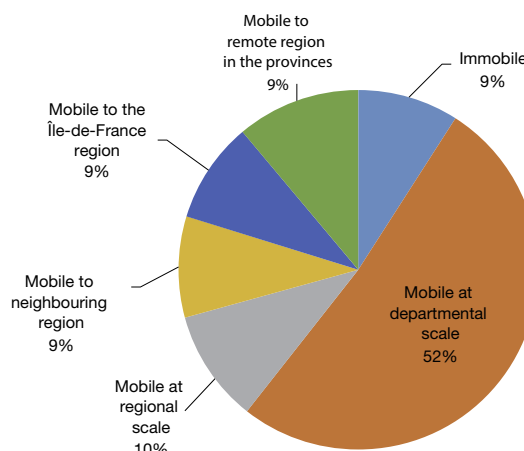
Reading note: Sample 1 contains 1,185 people. At the time of the survey (in 2003) they were 73.8 years old on average.
 Sources: Insee-Ined, *History of Life* survey, 2003.

Figure V
Distribution between the different “geographical standard pathways” for generations born before 1938 and between 1950 and 1958

V-A Individuals born before 1938



V-B Individuals born between 1950 and 1958



Note: The construction of the classes was carried out on the ground, by combining two samples. The names of the classes contain the names chosen to describe the classes in the typology built above.
 Scope: individuals born in France (1,185 born before 1938, 1,217 between 1950 and 1958)
 Sources: Insee-Ined, *History of Life* survey, 2003.

increases significantly, from 6% to 11%. The other developments are not significant. These factors are in line with previous results: over the generations, geographical pathways entail more mobility. Nevertheless, the geographical pathways at the departmental level remain by far the most frequent.

* *
 *

After providing several descriptive elements concerning the geographical mobility of individuals born in France and developments therein over generations, the core of this study lies in constructing a typology of the related geographical pathways. This typology covers individuals born in France before 1938.

Several salient traits emerge from it. Firstly, a significant proportion of the sample (18% of individuals) leave their initial municipality of residence only very episodically. Secondly, most geographical pathways unfold almost entirely at a relatively small territorial level (the department). Two-thirds of journeys almost never go beyond the departmental level¹⁶. Almost 80% of the geographical pathways only very rarely exceed the territorial framework of the initial municipality of residence’s region¹⁷ and 86% the territorial area of regions bordering this initial region of residence¹⁸. Geographical pathways involv-

16. This figure is reflective of classes 1 and 2 combined, or 66% of the sample.

17. This figure is reflective of classes 1, 2 and 3 combined, i.e. 79% of the sample.

18. This figure is reflective of classes 1, 2, 3 and 4 combined, i.e. 86% of the sample.

ing lasting interregional mobility in regions other than those bordering the initial region of residence do not represent more than 14% of the pathways¹⁹ and are observed mainly for executives or intermediate professions and graduates. This typology therefore reflects the strong territorial anchoring of the geographical pathways, particularly within a departmental or, more rarely, regional framework. While it applies to individuals born before 1938, it is also broadly valid for those born between 1950 and 1958.

However, this study should be completed more in depth on many aspects. Firstly, from a methodological point of view, a corrections for differential mortality could be applied to the sample so as to guarantee proper representativeness of the generations involved (in terms of breakdown by sex and by social categories in particular)²⁰. Secondly, the analysis would gain from being conducted on more recent data and a larger sample (the HDV survey dates back to 2003, the typology is based on a

sample limited to 1,185 individuals) in order both to grasp the geographical pathways of the younger generations and to carry out a more fine-grained analysis in terms of territories. Lastly, this contribution is only the first step in a more elaborate research. A second step would consist of taking this work to a deeper level by using multi-sequential methods of analysis that could provide better insights on the links between geographical, family and professional pathways. Insee's *Permanent Demographic Sample* an alternative source from this point of view even though limited to employees alone²¹, could offer a wealth of lessons. □

19. This figure is reflective of classes 5 and 6 combined, or 14% of the sample.

20. Such an operation, however, is not easy, especially for individuals who have changed socio-professional category during their lives.

21. See earlier for discussion on sources.

BIBLIOGRAPHY

Baccaïni, B. (1993). Comportements migratoires individuels dans l'espace français. *Espace Géographique*, 22(2), 133–145.
http://www.persee.fr/docAsPDF/spgeo_0046-2497_1993_num_22_2_3156.pdf

Baccaïni, B. (2007). Les flux migratoires inter-régionaux en France depuis cinquante ans. *Population*, 62(1), 143–160.
<http://www.cairn.info/revue-population-2007-1-page-143.html>

Baron, M. & Perret, C. (2012). Bacheliers, étudiants et jeunes diplômés : quels systèmes migratoires régionaux ? *Espace géographique*, 35(1), 44–62.
<https://www.cairn.info/revue-espace-geographique-2006-1-page-44.htm>

Bringé, A. & Bonvalet, C. (2014). Trajectoire géographique et territoire socio-résidentiel. L'apport de données contextuelles à une analyse longitudinale. *Fronts et frontières des sciences du territoire*, CIST, Paris, Mars 2014.

Brun, J. (1993). La mobilité résidentielle et les sciences sociales : transfert de concept et questions de méthodes. *Les Annales de la recherche urbaine*, 59(1), 3–14.
http://www.persee.fr/docAsPDF/aru_0180-930x_1993_num_59_1_1722.pdf

Caradec, V. (2010). Les comportements résidentiels des retraités. Quelques enseignements du programme de recherche « Vieillesse de la population et habitat ». *Espace, Populations et Sociétés*, 2010(1), 29–40.
<https://eps.revues.org/3897>

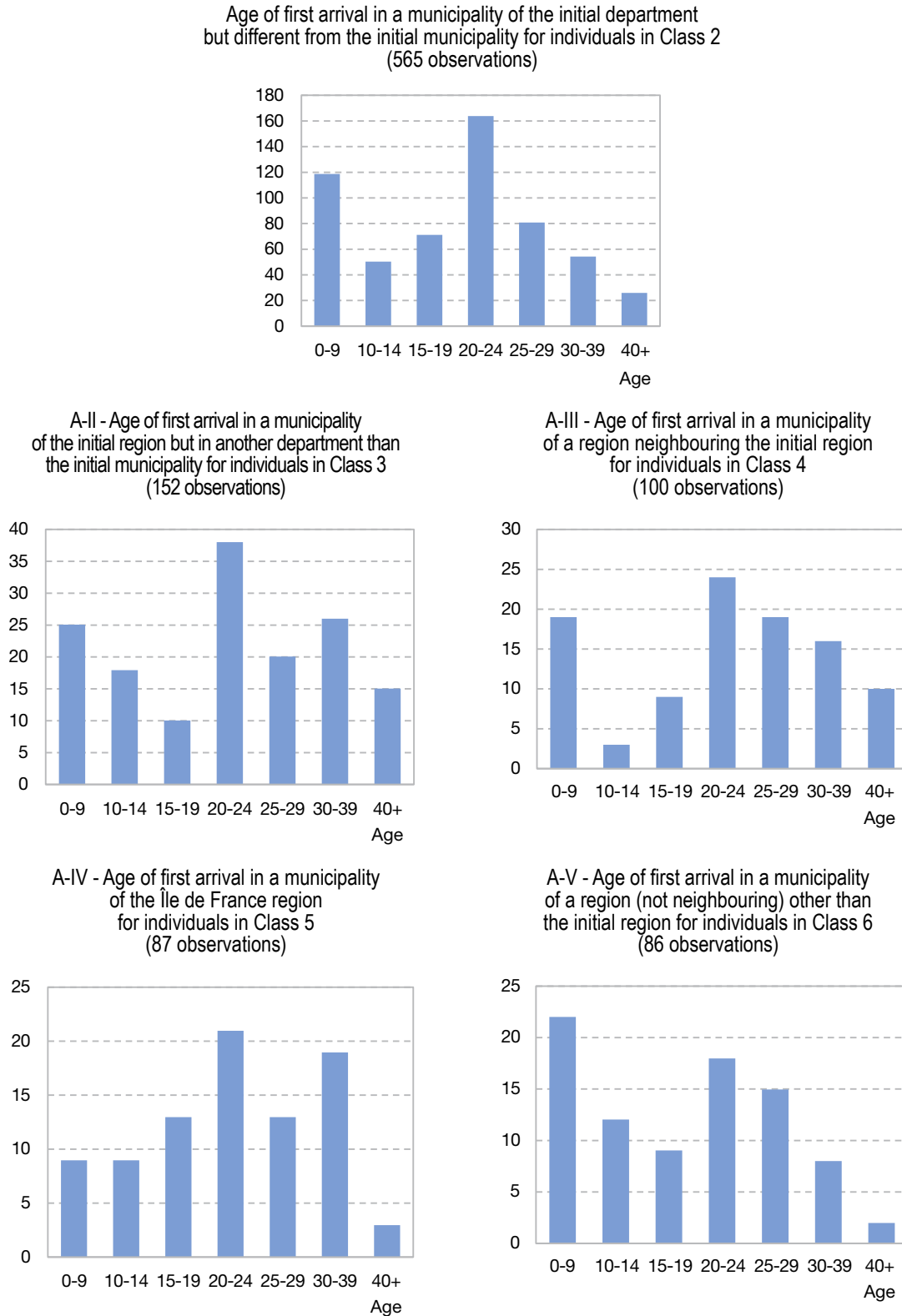
Couet, C. (2006). La mobilité résidentielle des adultes : existe-t-il des parcours type ? Insee Références, *France, portrait social*, pp. 159–179.
<http://www.insee.fr/fr/statistiques/1373139?sommaire=1373141>

Courgeau, D. (1980). *Analyse quantitative des migrations humaines*. Paris : Masson.

- Courgeau, D. & Lelièvre, E. (1990).** L'approche biographique en démographie. *Revue française de sociologie*, 31(1), 55–74.
http://www.persee.fr/docAsPDF/rfsoc_0035-2969_1990_num_31_1_1079.pdf
- Crenner, E., Donnat, O., Guérin-Pace, F., Housseaux F., & Ville I. (2006).** L'élaboration d'une enquête quantitative sur la construction des identités. *Économie et Statistique*, 393–394, 7–20.
doi: 10.3406/estat.2006.7139
- Cribier, F. & Kych, A. (1992).** La migration de retraite des Parisiens : une analyse de la propension au départ. *Population*, 47(3), 677–717.
http://www.persee.fr/docAsPDF/pop_0032-1663_1992_num_47_3_3862.pdf
- Debrand, T. & Taffin, C. (2005).** Les facteurs structurels et conjoncturels de la mobilité résidentielle depuis 20 ans. *Économie et Statistique*, 381-382, 125–146.
doi: 10.3406/estat.2005.7211
- Degorre, A. (2015).** Région de naissance, région de résidence : les mobilités des diplômés du supérieur. *Insee Première* N° 1557.
<https://www.insee.fr/fr/statistiques/1288054>
- Festy, P. (1988).** Après la séparation : diversité et stabilité des comportements. *Population*, 43(3), 517–535.
http://www.persee.fr/docAsPDF/pop_0032-4663_1988_num_43_3_17121.pdf
- Guérin-Pace, F. (2006a).** Sentiment d'appartenance et territoires identitaires. *L'Espace géographique*, 35(4), 298–308.
<https://www.cairn.info/revue-espace-geographique-2006-4-page-298.htm>
- Guérin-Pace, F. (2006b).** Lieux habités, lieux investis : le lien au territoire, une composante identitaire ? *Économie et Statistique*, 393-394, 101–114.
doi: 10.3406/estat.2006.7144
- Guérin-Pace, F. (2009).** La diversité des ancrages territoriaux au regard des parcours individuels. In : Ville (Ed.), *En quête d'appartenances*, chapitre 7. Paris : Ined.
- Lelièvre, E. (1988).** Bilan des connaissances sur la mobilité individuelle au cours du cycle de vie. *Séminaire Stratégie résidentielle*, Ined, Paris, 1988.
- Lelièvre, E. & Robette, N. (2010).** Les trajectoires spatiales d'activité des couples. *Temporalités*, 11, 1–8.
<https://temporalites.revues.org/1182>
- Lesnard, L. & Saint-Pol, T. (2004).** Introduction aux Méthodes d'Appariement Optimal (Optimal Matching). CREST, *Document de travail* N° 2004–15.
<http://bms.revues.org/638>
- Lessault D. & Imbert, C. (2013).** Mobilité résidentielle et dynamique récente du peuplement urbain à Dakar (Sénégal). *Cybergeo*, 665.
<https://cybergeo.revues.org/26146>
- Morand, E., Garnier, B. & Bonvalet, C. (2012).** Analyse Harmonique Qualitative : une application à la comparaison des trajectoires résidentielles et géographiques de Parisiens. *Actes des XI^e Journées de méthodologie statistique*, Insee, Paris.
- Robette, N. (2011).** *Explorer et décrire les parcours de vie : les typologies de trajectoire*. Paris : Ceped, série « Les clefs pour ».
<https://www.cairn.info/revue-population-2008-4-page-621.htm>
- Ville, I. & Guérin-Pace, F. (2005).** Interroger les identités, l'élaboration d'une enquête en France. *Population*, 60(3), 277–306.
<https://www.cairn.info/revue-population-2005-3-page-277.htm>

THE AGES OF MOBILITY IN THE SIX GEOGRAPHICAL PROFILES OF THE TYPOLOGY

Figure A
Distribution of the ages of first arrival in the modalities



Scope: individuals born in France, residing in mainland France and above age 65
Sources: Insee-Ined, *History of Life* survey, 2003.