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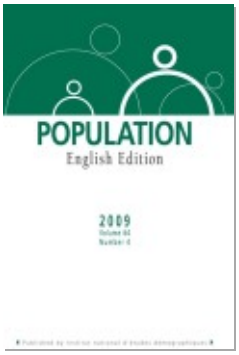

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Residential Mobility Trends in France, 1973-2006. New Estimates

Until now, no generally validated approach has been adopted for measuring annual residential mobility rates in France. One of the most widely used techniques was developed at INED by Daniel Courgeau (1973) and is known as the "migrants-migrations" model (1973). Successive estimates based on this model (Courgeau, 1978, 1990; Baccaïni et al., 1993; Baccaïni, 2001a, 2001b; L'Hospital, 2001; Courgeau and Lelièvre, 2004) have produced sometimes diverging results. This is due to differences in sources and in data collection protocols, but, above all, to the dates on which the model's coefficients were updated and to the choice of intermediate calculation steps.

Debrand and Taffin (2005) applied a simpler method to the Housing Surveys series (Enquêtes nationales logement) from 1984 to 2001. These new estimates produced lower mobility rates and trends that diverged from those of the earlier studies. Today, studies of annual migration patterns still sometimes differ in their conclusions despite upstream efforts to compile data and produce estimates from the migrants-migrations model (Courgeau and Lelièvre, 2004) or from multiple-source investigations (Royer, 2007).

In response to this lack of consensus about residential mobility rates, we suggest a third method. It is more direct than the others and can be used with the Housing Survey data series from 1973 to 2006 and the Labour Force Survey (enquête Emploi) data series from 1990 to 2007, since both surveys include questions on the respondents' mobility. We compare our results with those of earlier studies and track residential mobility trends from the end of the thirty-year post-war boom in France up to 2006.

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I. Estimates based on the migrants-migrations model

Presentation and updating of the model's coefficients

Daniel Courgeau's model is based on the observation that most French data sources track migrants (i.e. persons who have moved between two dates) rather than migrations (changes of place of residence). This underestimates mobility because it fails to record repeat and return migration over a given period. To remedy this problem, the migrants-migrations model converts numbers of migrants recorded over multi-year periods to an annual mobility rate. This model has often been applied to the data from the population census, which takes place every five to nine years. The model is based on the following assumptions (Courgeau, 1973):

• the probability K that a person who has migrated once will do so again in the future is practically independent of the order of the previous migration. However, this probability depends on the spatial level observed, i.e. whether the move was to a new dwelling or a new *commune*,[1] *département* or region;

• for the population exposed to the risk of repeat migration, the instantaneous probability of repeat migration, k, is independent of the interval between two migrations, the order of the previous migration and the spatial level of observation;

• among second or higher order migrations during the period in question, a proportion l represents return migrations to the original area.

To shift from migrants to migrations, the model formalizes the relationship between repeat and return migrations on the one hand, and number of migrants on the other, over a given period. The total number of migrants M over a period t can be written as follows:

$$M(t) = Pm\left[(1 - k(1 + l))t + \frac{K(1 + l)}{k}(1 - e^{-kt})\right]$$

where P is total population, m is the instantaneous mobility rate and l represents returns to the original area expressed as a proportion of second or higher order migrations.

To measure the instantaneous migration rate, m, for each period, parameters k and $K(1 + l)$ must be estimated from longitudinal survey data tracking individuals' lifetime migrations.

To estimate the instantaneous probability of a new migration, k, complete knowledge of individuals' lifetime migrations is needed. This coefficient was updated most recently in 1997 using data from the Youth and Careers survey (enquête Jeunes et Carrières) (L'Hospital, 2001). The coefficient obtained was 0.26, compared to 0.18 for the coefficient estimated by Courgeau in 1973. Thanks to more recent life event history data provided by the 2003 Life History

(1) The *commune* is the lowest level of administrative division in France.

survey,[2] we can update coefficient k (Appendix). The instantaneous migration rate, which is close to an annual rate, can be determined by solving the following system (Courgeau, 1986):

$$(S)\quad \begin{cases} \overline{m} = m\left[(1 - K(1 + l)) + \dfrac{K(1 + l)}{k}(1 - e^{-k})\right] \\ m_1 = m\left[(1 - K(1 + l))t + \dfrac{K(1 + l)}{k}(1 - e^{-kt})\right] \end{cases}$$

where m_1 is the proportion of migrants for the entire period and $\overline{m}$ the mean annual mobility rate.

Application to Housing Survey data

Until now, the migrants-migrations model has been applied to census data (Courgeau, 1978, 1990; Baccaïni et al., 1993; Baccaïni, 2005; L'Hospital, 2001; Courgeau and Lelièvre, 2004). In this study, we apply it to the 2001-2002 Housing Survey to extend the table published by Courgeau and Lelièvre (2004). The proportion of migrants for the entire period m_1 is calculated from answers to the question "Where was M. living on [date of last survey]?", i.e. for a five-year period. The question covers only the reference persons and their partners because the Housing Surveys do not record information on all household members. The mean annual mobility rate $\overline{m}$ is taken from the Labour Force Surveys of 1999 to 2002.[3] The results are close to those published by Courgeau and Lelièvre in 2004 for migrations to another region or *département*, but are more divergent for migrations to another *commune* (Table 1). They are similar to Baccaïni's last estimates (Baccaïni 2005).[4] Using the value of parameter k calculated for the 40-60 year age group, the mobility rates obtained are still very close to those estimated with a k of 0.25 (for the 40-45 age group).[5] Last,

(2) The Life History survey (enquête Histoire de vie) was conducted by INSEE in 2003 among persons aged 18 and over living in metropolitan France. The sample (8,403 people) was representative of the population. The survey recorded respondents' family, residential and occupational event histories, so successive migrations could be identified.

(3) Unless otherwise stated, we assume that the authors of previous studies have used the mean as estimator for the annual rate in their calculations. For the sake of homogeneity we have done the same. Their calculations applied to intercensal periods, the most recent such period being nine years. In our case, the 2001-2002 Housing Survey covers only four years, in a period when mobility was particularly variable (see below). Using the median, which is less volatile, proves more robust in this case. Moreover the 1999 Labour Force Survey was conducted in January and not March like the other annual surveys. The data for that year have therefore been adjusted.

(4) Baccaïni's first estimates for the 1990-1999 period (Baccaïni 2001a, 2001b), which are still sometimes taken as benchmarks (Laferrère, 2007), were based on old estimates of the parameters in the Courgeau model and were adjusted after the coefficients were updated (L'Hospital, 2001; Baccaïni, 2005).

(5) Mobility rates were then 17.5 per 1,000 for moves to another region, 30.2 per 1,000 for moves to another *département*, 72.6 per 1,000 for moves to another *commune* and 122.0 per 1,000 for moves within the same *commune*.

using the median rather than the mean also gives similar results.[6] However, the migrants-migrations model does not provide an accuracy indicator, and this makes comparisons difficult, particularly when updating coefficients using new data sources.

Table 1. Instant migration rates estimated with the migrants-migrations model (per 1,000)

Period	Change of			
	Region	*Département*	*Commune*	Dwelling
1954-1962	13.3	20.0	48.7	–
1962-1968	15.1	25.1	53.4	–
1968-1975	17.9	29.0	60.5	97.7
1975-1982	16.5	26.5	58.8	94.7
1982-1990	16.2	25.8	55.6	85.6
1990-1999 [a]	16.8	28.7	67.8	122.0
1990-1999 [b]	16.2	27.3	63.5	111.8
1990-1999 [c]	16.0	28.0	65.0	117.0
1997-2001	17.5	30.3	72.8	122.4
1999-2004	19.0	31.0	73.0	120.0

Sources:
1954-1975: Courgeau estimate, 1978, revised (Baccaïni et al., 1993), population census.
1975-1982: Courgeau estimate, 1990, revised (Baccaïni et al., 1993), population census.
1982-1990: Baccaïni et al. estimate (1993), population census.
1990-1999: [a] Courgeau and Lelièvre (2004) estimate, population census; [b] L'Hospital (2001) estimate, persons aged 20 and over, population census; [c] Baccaïni (2005) estimate, persons aged 5 and over, population census.
1997-2001: Donzeau and Pan Ké Shon estimate, reference persons and their partners aged 20 and over, 2001-2002 Housing Survey.
1999-2004: Baccaïni estimate (2005), persons aged 5 and over, 2004 annual census survey.

The coverage of mobility studies can vary, often depending on constraints inherent to the data sources. Under the new census system, data from annual census surveys are aggregated over five years, which means that only persons aged 5 and over can be taken into account (Pan Ké Shon, 2007). The Housing Surveys only cover reference persons and their partners, whose mobility is known, and cannot be used to estimate mobility for the total population. However, the difference between mobility rates of the total population and those of household reference persons and their partners can be calculated from

(6) The rates obtained using the median instead of the mean are 17.4 per 1,000 for moves to a new region, 29.4 per 1,000 for moves to another *département*, 70.8 per 1,000 for moves to another *commune* and 120.8 per 1,000 for moves within the same *commune*.

the Labour Force Surveys.(7) In 2003, the mobility of individuals aged 15 and over was 0.1 percentage points lower than that of the total population. Reference persons and their partners aged 15 and over had a mobility rate 0.5 points higher than that of the total population in the same age group.

By its nature, the migrants-migrations model can only be used to estimate mean annual mobility for the whole of the period covered by the source used, with no possibility of detecting any trend changes or mobility peaks within the period. Yet based on data from the Labour Force Surveys, the variation observed between 1990 and 1999 is around 3 points.

Towards an alternative model?

In an article published in 2005, Debrand and Taffin suggested an alternative measure of residential mobility using the Housing Surveys for the period 1984-2001, based on answers to the question about the dwelling occupied at the time of the previous survey (four or five years earlier depending on the survey concerned). They calculated the proportion of persons who had moved by comparing the number of households that had done so with the total number of households at the time of the survey. They then estimated annual rates using the following formula:

$$T = 1 - (1 - T_n)^{12/n}$$

where T is the annual rate,

T_n is the rate calculated for n months,

$(1 - T_n)$ is the probability of not moving for $n/12$ years, and

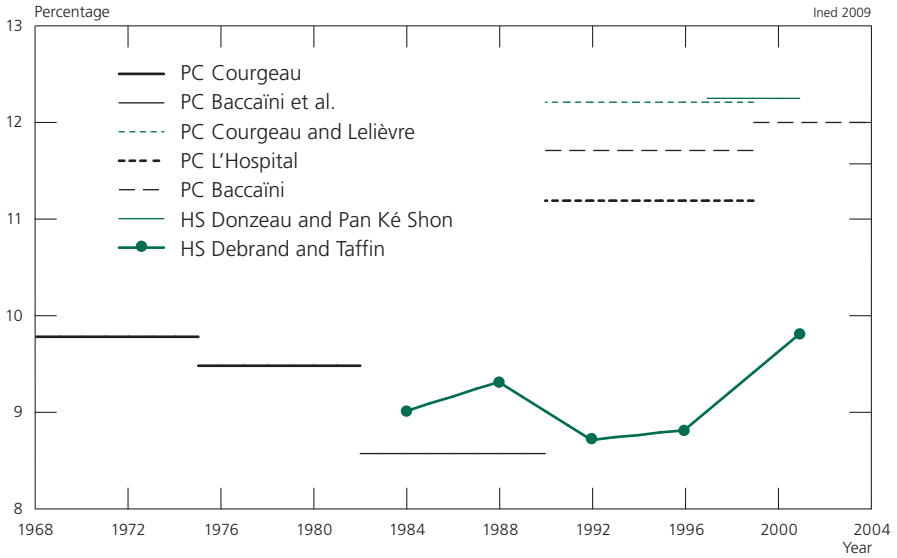
$(1 - T)$ is the mean probability of not moving in the course of the year.

This method is based on the implicit assumption that migration behaviour is uniform across the population, i.e. that an identical probability of migration applies to all individuals regardless of their migration history. But in fact, mobility changes over the life course and while some people are highly mobile, others are far less so. If one assumes that migration behaviour is identical between individuals, the movements of highly mobile people will not be fully captured and the migration rate will be underestimated.

As shown in Figure 1, Debrand and Taffin's estimates are close to the results obtained by Courgeau between 1984 and 1988 but markedly lower than more recent estimates. Unfortunately, this new method does not provide an accuracy indicator either.

(7) The Labour Force Survey provides individual data for persons aged 15 and over and succinct data on other household members. It thus gives a representative picture of the total population.

Figure 1. Estimates of annual mobility since 1968
from population censuses (PC) and Housing Surveys (HS)



Sources: 1968-1982: Estimate by Courgeau (1978, 1990) revised (Baccaïni et al., 1993), population census; 1982-1990: Estimate by Baccaïni et al. (1993), population census; 1990-1999: Estimate by L'Hospital (2001), persons aged 20 and over, population census; 1990-1999: Estimate by Courgeau and Lelièvre (2004), population census; 1990-2004: Estimate by Baccaïni (2005), persons aged 5 and over, 1999 population census, 2004 annual census survey; 1997-2001: Estimate by Donzeau and Pan Ké Shon, reference persons and their partners aged 20 and over, 2001 Housing Survey; 1984-2001: Estimate by Debrand and Taffin, (2005), household reference persons, Housing Surveys 1984 to 2001.

II. New estimates based on Housing Surveys and Labour Force Surveys

We have seen that applying the migrants-migrations model to data from the 2001-2002 Housing Survey provided results consistent with the estimates based on census data. However, another method can be applied to the Housing Surveys from 1973 on. It has not been used before, but it gives the estimated mobility rates together with their confidence intervals, making it possible to track mobility trends from 1973 to the present with greater accuracy.

Semi-direct estimates from Housing Surveys, 1973-2006

Initiated in 1955, the French National Housing Survey is conducted by INSEE every four or five years. Coverage varies from year to year, ranging between 23,500 and 45,000 households living in metropolitan France,[8] representing 65,000 to 135,000 individuals. The survey concerns trends in

(8) Mainland France and Corsica.

housing supply, housing conditions, rents, home loans, etc., and includes information on individual and household characteristics. These data make it particularly suitable for mobility research. The eight most recent Housing Surveys, conducted in 1973, 1978, 1984, 1988, 1992, 1996, 2001 and 2006, can be used to track the past mobility of household reference persons. The question "In which year did the reference person move into this dwelling?" has been asked regularly since 1973. Taking those who moved in the year of the survey itself as a proportion of the total sample gives the year's percentage of migrants. Over such a short period, this rate is close to a migration rate since it is rare for people to change residence more than once in the same year (Courgeau, 1973). For the 2006 survey, the data collection protocol was changed. The survey was extended to the French overseas *départements* and was run in six waves spread over the last ten months of the year.

With this method, the mobility rate is not measured over the whole year: only migrations occurring before the survey date are recorded. This is the main difficulty to be overcome when using this method to estimate annual mobility. Up until 2001, Housing Survey interviews generally took place in the last quarter of the year. October surveys thus covered mobility, if any, over nine to ten months, depending on whether the interview took place early or late in the month. Without information on the exact date of each interview, we have to apply an average mid-month interview date, and possible migrations in the remaining 2.5 months of the year go unrecorded. Likewise, there is a 1.5 month deficit of potential migrations for respondents interviewed in November, while in December interviews are mainly held in the first two weeks of the month because of the festive season, so there is a 0.75 month deficit. Unless corrections are made for these incomplete observation periods, migration will be considerably underestimated.(9)

One correction method involves adjusting the data to account for the months not covered by the survey question. In 1973, for example, interviews were held on average after 10.42 months.(10) Before correction the 1973 residential mobility rate is 8.93%. The adjusted rate is obtained as follows:

$$8.93\,\% \times \frac{12}{10.42} = 10.28\,\%$$

An identical procedure is used for the first seven surveys. In 2006, the data were gathered in six waves, and respondents were asked about their moves over a retrospective period that ranged from 2.5 months for those interviewed

(9) Most Housing Surveys take place at the end of the year. The survey of 1978 was a notable exception, with data collected in the second quarter. Taking into account changes of residence in 1977 and early 1978 reduces the amount of correction required and gives better results. The mobility rate obtained this way corresponds to the year 1977 for a survey conducted in 1978.

(10) 9.5 months for October surveys, 10.5 months for November surveys and 11.25 months for December surveys.

in March to 11.25 months for those interviewed in December. The mobility rate prior to correction was 5.31%, so the correction was larger for this survey:

$$5.31\,\% \times \frac{12}{6.975} = 9.14\,\%$$

The proportion of unobserved migrations[11] varies from 3.5% to 13.2% for the old-formula Housing Surveys, with a peak of 37.5% for the 1978 survey. For the continuous Housing Surveys it is 41.9%. This makes the results for 2006 uncertain, as they are for 1977.

A second correction method is based on applying monthly mobility rates. The Housing Surveys since 1984 give the month of the move to the current dwelling. Wide month-to-month variations in mobility emerge: migration peaks in July and September, and dips from February to May (Donzeau and Pan Ké Shon, 2009). Under this method, a correction coefficient is attributed to each month according to the mobility rates observed in that month over the three or four years preceding the survey, to keep as close as possible to observed migration patterns. For the 1973 and 1978 Housing Surveys which do not give this information, the corrections available from the 1984 survey onwards are used.

All in all, the two proportional correction methods give similar results when the data are collected at the end of the year, and only limited correction is required. Whichever method is used, the correction rate is very high for the 1978 Housing Survey: since the data were gathered in the second quarter of that year, neither correction method seems truly satisfactory. However, with the shift to continuous data collection in 2006, the months when changes of residence take place must be taken into account. We have therefore adopted the second correction method.

The confidence intervals accompanying the mobility curves give an indication of the precision of estimates but do not take account of possible evaluation bias. Comparing results based on the Housing Surveys and on the Labour Force Surveys provides a means to identify potential biases, if they are not the same for the two surveys.

Direct estimates from the Labour Force Surveys 1973-2006

Initiated in 1950, the Labour Force Survey serves to assess unemployment, describe the situation of the unemployed and changes in the employment situation (Goux, 2003). Each year it provides a wealth of information on labour force participation by occupation, sex, age, hours worked, and on insecure employment. Until 2002, 75,000 dwellings, representing between 130,000 and

(11) The proportion of unobserved migrations is given by the following formula:

$$p = 1 - \left(\frac{\text{number of months observed}}{12}\right)$$

over 150,000 individuals, were surveyed in March. Since 2003, the Labour Force Survey data have been gathered continuously, over a six-week period each quarter, from a sample of about 38,000 households in metropolitan France representing about 70,000 respondents and 15,000 children under 15. The rotating sample is gradually renewed, with 1/6 leaving and being replaced each quarter, so that households are interviewed for six consecutive quarters. To understand changes in labour force participation, part of the questionnaire is devoted to the individual's situation one year previously (more precisely in March of the previous year, for the annual surveys up to 2002). From the questions asked, the person's mobility over the previous year can be identified, and an annual mobility indicator can be calculated.

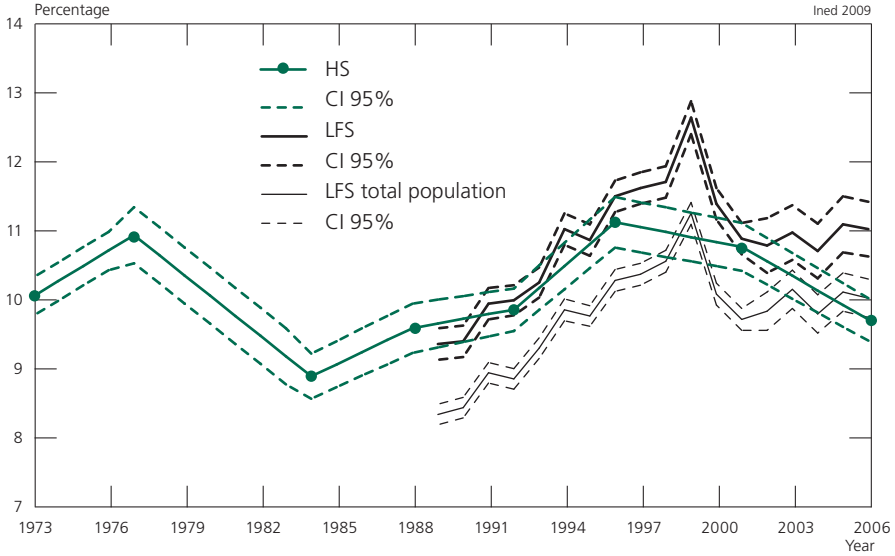
The Labour Force Survey data series can be used to make new estimates for comparison with the semi-direct estimates from the Housing Surveys. The question included in the Labour Force Surveys between 1990 and 2002 was "Where was M. living in March last year?"; the formulation used since 2003 is "Where were you living a year ago?". Annual residential mobility can be measured from the responses with no correction needed.[12] However, this annual measurement covers three months of year n and nine months of year $n-1$. The mobility rate is therefore attributed to year $n-1$. The Labour Force Surveys prior to 1990 give only changes of *commune*, *département* and region; they cannot be used to check the overall mobility rate calculated from the Housing Surveys. For comparability, the scope is first restricted to household reference persons, then extended to the entire population aged 15 and over.

Note that the mobility estimates based on the Housing Surveys concern the year of the survey itself, symbolized by dots in Figure 2. The lines joining two dots are shown simply for easier reading, since there are no estimates for the three or four years between surveys. The Labour Force Surveys provide annual information. For the years in which Housing Surveys are conducted, estimates coincide with those of the Labour Force Surveys: at a minimum, the confidence intervals of the two surveys overlap, which means the estimates are robust. The only exception is 2006, with a gap of 0.6 points between the confidence intervals, probably because of the high proportion of unobserved migrations in that year's Housing Survey.

The mobility of household reference persons is greater than for the population as a whole because reference persons are often working-age men, who are more mobile than other categories. Nonetheless, the two populations' mobility levels follow parallel trends.

(12) Nonetheless we have corrected the data from the 1991 and 1999 Labour Force Surveys for which the mobility observation period was not a full year.

Figure 2. Estimate of annual mobility rates (migrants) from Housing Surveys (HS) and Labour Force Surveys (LFS)



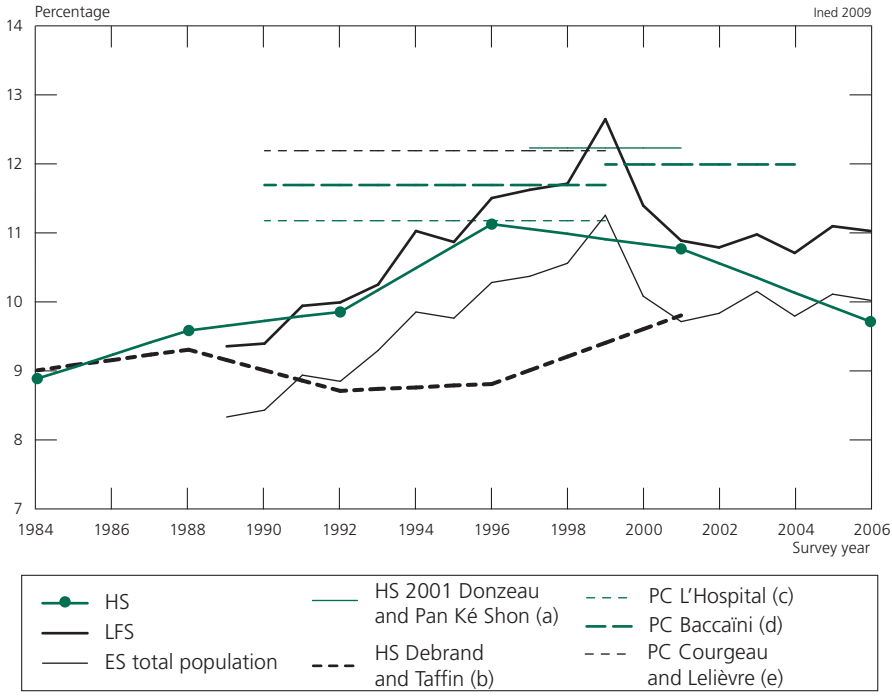
Scope: Household reference persons for Housing and Labour Force surveys (bold curves). Entire population aged 15 and over for total population Employment Surveys (ES).
Sources: Housing Surveys 1973 to 2006; Labour Force Surveys 1990-2007.

III. Comparison of the different estimates

In the Housing Survey, the question about the year the person moved into the current dwelling is only asked of the household reference person, which limits the scope of estimates to this population. This results in an overestimation of mobility compared to the population census, which covers the entire population. Consequently, according to our calculations, the estimates based on census data should be 0.7 percentage points lower than those based on the Housing Surveys, and close to the Labour Force Survey estimates which concern the total population aged 15 and over.

Figure 3 shows annual mobility rates as estimated by the different methods. Clearly, the migrants-migrations model works better when estimates concern a period close to the time when the coefficients were updated. However, the results of the migrants-migrations model are sometimes quite far from the direct estimates based on the Housing Surveys and Labour Force Surveys, as is the case, for example, for the period 1990-1999. Moreover, these results tend to systematically overestimate mobility levels. The method used by Debrand and Taffin should be avoided as it gives results that are contrary to observed trends and mobility levels that are very different from the estimates based on the Labour Force and Housing surveys.

Figure 3. Comparison of annual mobility rates based on population censuses (PC), Housing Surveys (HS) and Labour Force Surveys (LFS)



Scope: Reference persons, metropolitan France, for Housing Surveys incl. Debrand and Taffin (b); Reference persons and total metropolitan France population aged 15 and over for Labour Force Surveys; The migrants-migrations model is applied to the Housing Survey, scope is limited to reference persons and their partners aged 20 and over (a); Persons aged 5 and over for the 1999 census and 2004 annual census survey (d); Persons aged 20 and over for 1999 census(c); 1999 census(e).
Sources: Housing Surveys 1984 to 2006; Labour Force Surveys 1990 to 2007; Population census 1999; Annual census survey 2004.

In a recent study J.-F. Royer (2007) also made a new assessment of mobility in France for the 1976-2005 period based on four different sources: the censuses, the Labour Force Surveys, the Housing Surveys and the panel of employers' annual declarations of tax and social security data (DADS[13]). His estimates follow a similar trend to ours, except for the periods 1990-1993 and 2000-2005. Overall, Royer discards the results based on Daniel Courgeau's model applied to census data because of the uncertainties associated with that model's coefficients. He also discounts Debrand and Taffin's results based on Housing Surveys because they are limited to permanent households.[14] Instead, he uses

(13) Companies fill in DADS declarations each year for the tax and social security authorities. They concern private-sector employees and include their social security number, address, number of hours worked and pay.

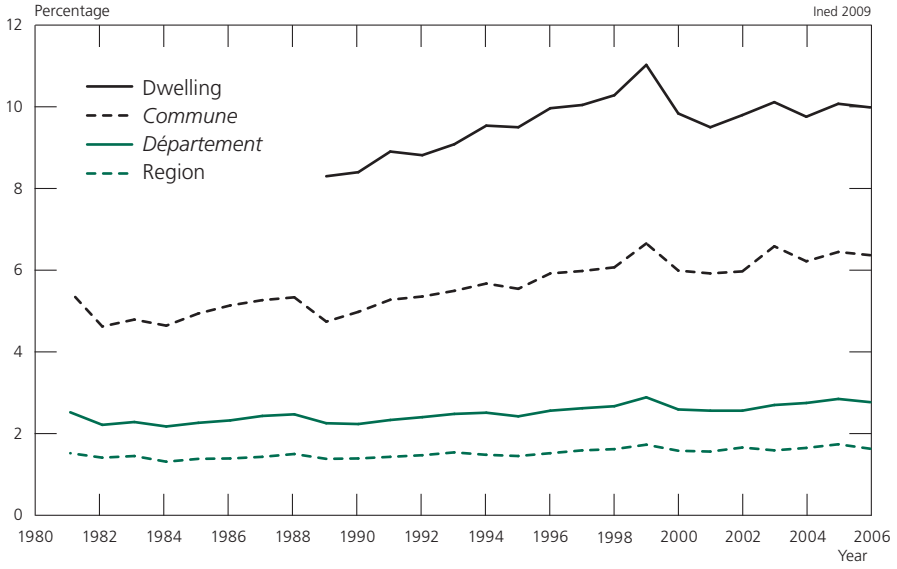
(14) Households whose reference person already had an independent dwelling at the start of the period.

the Labour Force Survey and especially the DADS panel. But the DADS panel has several drawbacks. It is limited to persons in employment (so excluding the unemployed) working in the private sector, who are predominantly men, represented at an age where life events involving changes of residence are more frequent (20-49 age group). This leads to an overestimation of mobility rates (Royer, 2007, p. 6).

The similarity between the mobility rates that we estimated from the 1973-2006 Housing Surveys and Labour Force Surveys confirms their robustness. However, for the estimate based on Housing Surveys, a correction rate must be applied. Moreover, their scope is limited to household reference persons, so mobility for the general population would be overestimated. In all, the high correction rates needed for the most recent Housing Survey seem to invalidate this method, or at least make it less reliable, from the 2006 survey onward.

In all cases, the Labour Force Surveys provide the best data source for simple and robust estimation of the annual mobility rate for metropolitan France, and this will be all the more true in the coming years. In response to the technical problems encountered by this survey in 2007, INSEE is planning to double the sample within the next few years to enhance estimation accuracy. However, to analyse mobility rates in relation to the characteristics of dwellings and of their inhabitants, it is still very important to also have a method for calculating mobility via the Housing Surveys.

Figure 4. Mobility trends based on the Labour Force Surveys



Note: Information on changes of dwelling before 1990 is not available.
Scope: Entire population of metropolitan France aged 15 and over.
Source: Labour Force Surveys 1981-2007.

Excluding the data from the Housing Survey of 1978, a year for which the annual estimate is of questionable validity (see above), residential mobility fell between 1973 and 1984. After peaking at the very end of the 1990s, it subsequently fell, and has changed little since then (Figure 2). The variations in mobility between 1973 and 2006 cannot be interpreted as a consequence of any single phenomenon such as the rise in unemployment or greater fluidity in the housing market (Donzeau and Pan Ké Shon, 2009). Many parameters have changed over these thirty years: the population structure underwent a profound change when the baby-boomers reached adulthood at the start of the period; the population has aged; the numbers of students and of unemployed have increased; the housing market has changed, with a steady increase in the stock of new homes (Bonvalet and Brun, 2002); changes have occurred in individual behaviour, in the employment situation, etc. In fact, the annual mobility level reflects this diverse range of causes, whose effects are sometimes contradictory.

According to the Labour Force Surveys (Figure 4), mobility between regions and between *départements* has changed less in absolute terms than moves between *communes* in the last 25 years (and moves between dwellings in the past fifteen years). Residential mobility between *communes* varies most widely in relative terms over the period.

Conclusion

Two simple methods for estimating annual residential mobility rates from the Housing Surveys and the Labour Force surveys have been put forward. Direct estimation from the Labour Force Survey seems preferable because it needs no correction, the survey is conducted annually and the already large sample size should be further increased in future. The migrants-migrations model is no longer needed to estimate annual mobility, but it should continue to be useful for smaller sub-populations under the new French census system.(15) Although it is cumbersome to apply, it will remain effective as long as the census question from which residential mobility can be measured continues to cover a five-year period. Only by adopting the question "Where were you living a year ago" for the Housing Survey and, above all, for the annual census surveys, will French statistics dispose of a reliable indicator of annual mobility permitting robust investigations of sub-populations.

This research tracks overall trends in annual residential mobility in France from the late 1970s to 2006. The nature of mobility has also changed greatly over that period. For example, young people are increasingly mobile, while their elders have become less so (Laferrère, 2007). The west and south coasts of France have retained their appeal (Baccaïni, 2001b, 2005, 2007; Degorre, 2007; Baccaïni and Levy, 2009). However, the increase in mobility rates is

(15) Readers may find it useful to read the criticisms formulated by Jean-François Royer (2007).

mainly due to local moves, either between *communes* or within the same *commune*. In this respect, it seems to depend more on changes in family structure (marital breakup, episodes of living alone, reconsituted families) than on occupational mobility (moving to a new region or *département*) or the growing number of retirees with two homes. Most moves between *départements* are between neighbouring *départements* (Baccaïni and Levy, 2009), which suggests that for populations living near a border between *départements* the "boundary" effects are more administrative than geographical in nature.

The alternating periods of increasing or decreasing mobility are not easy to explain. A reliable interpretation would require a large volume of data to sort out causes and effects: changes in population structure, social and economic factors (type of employment, unemployment, weight of housing costs in disposable household income), behavioural trends (attraction of coastal areas and warm climates, changes in family structure) or peri-urban development. The Housing Surveys are still a valuable data source in this regard. They would be all the more useful if they could be used to model mobility in such a way as to identify its various causes and the respective contribution of each. This would require information on events prior to and immediately preceding migration, which are still too partial to be useful.

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APPENDIX

Updating the coefficients of the migrants-migrations model based on the 2003 Life History survey

To update the coefficients of the migrants-migrations model, we took the population aged 40-45 to obtain a large enough sample in an age group where lifetime changes of residence are sufficiently numerous. Migrations are counted from the individual's 16th birthday. The calculations are based on the first five migrations with a maximum period of five years between migrations. This gives a value of k equal to 0.25 which is very close to that proposed by L'Hospital in 2001 (0.26). This is not surprising since k actually represents greater or lesser individual mobility, and the dates of the data used to update this coefficient are only 6 years apart (1997 for the Youth and Careers survey used by L'Hospital, 2003 for the Life History survey): behaviour cannot have changed radically in so short a time. However, the size of coefficient k depends on the age of the persons whose migrations are examined. In 2003 the same coefficient calculated for persons aged 40-60 was estimated at 0.23.

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Nathalie Donzeau, Jean-Louis Pan Ké Shon • Residential Mobility Trends in France, 1973-2006. New Estimates

This short paper tracks annual trends in French residential mobility from 1973 (end of the post-war boom years) to 2006. Two different estimation methods are used: Daniel Courgeau's migrants-migration model and a more direct method applicable to the Housing Survey and to the Labour Force Survey series. The results of these estimates are compared with those already published in the French literature by various authors using the migrants-migration model. Residential mobility fell between 1973 and 1984, then rose to a peak for the study period in 1999. It then declined and subsequently stabilized – temporarily at least – at a high level. The increase in mobility since the early 1980s has mainly involved moves over short distances: changing residence within the same *commune* or moving to a new *commune* in the same *département*. This finding suggests that the changes in family structure over this period have had a greater impact than occupational mobility.

Nathalie Donzeau, Jean-Louis Pan Ké Shon • L'évolution de la mobilité résidentielle en France entre 1973 et 2006 : nouvelles estimations

Cette note de recherche retrace l'évolution annuelle de la mobilité résidentielle française de la fin des trente glorieuses à 2006. Pour cela, trois méthodes différentes d'estimation sont mises en œuvre : le modèle migrants-migrations de Daniel Courgeau, les évaluations directes corrigées grâce aux séries des enquêtes Logement puis des enquêtes Emploi. Les résultats de ces estimations sont ensuite comparés à ceux déjà publiés dans la littérature française par différents auteurs à partir du modèle migrants-migrations. La mobilité résidentielle a baissé entre 1973 et 1984 avant d'atteindre le pic de la période étudiée en 1999, pour décroître ensuite et se stabiliser, au moins momentanément, à un niveau élevé. Depuis le début des années 1980, la progression de la mobilité en niveau est principalement due aux mobilités de proximité, qu'il s'agisse de changements de logement ou de commune. Ce résultat suggère que les transformations de la famille intervenues au cours de la période ont eu un impact plus important que les mobilités professionnelles.

Nathalie Donzeau, Jean-Louis Pan Ké Shon • La evolución de la movilidad residencial en Francia entre 1973 y 2006 : nuevas estimaciones

Esta nota de investigación reconstituye la evolución anual de la movilidad residencial desde el final de los « treinta (años) gloriosos » hasta 2006. Para ello, tres métodos diferentes han sido utilizados: el modelo migrantes-migraciones de Daniel Courgeau, las evaluaciones directas corregidas gracias a la serie de encuestas Vivienda y más tarde a la de las encuestas Empleo. Los resultados de estas estimaciones son comparados a los ya publicados en la literatura francesa por diferentes autores a partir del modelo migrantes-migraciones. La movilidad residencial ha disminuido entre 1973 y 1984 antes de alcanzar en 1999 el máximo del periodo estudiado, y ha decrecido después hasta estabilizarse, al menos de momento, a un nivel elevado. Desde comienzos de los años 1980, la progresión de la movilidad es principalmente debida a los movimientos de proximidad, que sean cambios de vivienda en el mismo municipio o cambios de municipio. Este resultado sugiere que las transformaciones de la familia acaecidas durante el período han tenido un impacto más importante que la movilidad profesional.

Translated by Harriet Coleman.