The reward of audacity? Looking at migration gains in urbanizing France, 1870-1940.

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Very preliminary.
Do not quote.

Abstract
Migration may be view as a way to take advantage of opportunities on distant labor markets. However few studies were able to quantify the relationship between social and geographic mobility. By combining a large database that gives information on both individual and their family with military registers that provide detailed migration history, we can precisely assess social and wealth mobility for both migrants and stayers. At the end of the 19th century, France experienced at the same time economic growth –that creates spatial heterogeneity– and standardization of education –with every young men receiving primary education. Then we expect social mobility to be high. We show that, indeed, migrants are more socially mobile but they also have much less wealth than stayers. This may be linked to the high cost of migrating as well as to different strategies or tastes regarding assets accumulation. Finally, we use family characteristics to account for migrants' selection.

Keywords: social mobility; migration; wealth; local labor market; industrialization.

JEL codes: N33, J61, J62

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Introduction: social mobility and industrialization

Society organization –and especially the structure of the economy– appears to be a key determinant of social mobility. Many studies try to disentangle social mobility linked to the social structure and "pure" social mobility (Erikson and Goldthorpe, 1993; Goux and Morin, 1997). However, the mechanisms underlying social mobility change themselves over time. To that respect, historical analyses are crucial to fully understand the relationship between economic structure and social mobility (Ferrie, 2005). In this context, two investments appear to be important factors in promoting social mobility: human capital and geographic mobility (Solon, 2004). As such, Third Republic France presents a particular interest with the conjunction of two phenomena: industrialization and mass primary schooling. The former creates differences between local markets while the latter may reduce the efficiency of investing in education, which seems to have been an important determinant of social mobility in the first half of nineteenth century France (Sewell, 1985).

Social mobility is often assumed to increase during economic development; for instance as a result of transformations in the labor market. Indeed, the uneven level of development between geographical areas during the industrialization may create opportunities for migrants to faster access different –and better– social positions. But few empirical studies have tackled this issue. Initially, the analysis was limited to monographic analysis of social mobility in a specific place, as in the reference study of Boston by Stephan Thernstrom (Thernstrom, 1973). But recently, thanks to databases improvement, a growing literature has started to consider social –as well as wealth– mobility in the past, taking advantage of census data to overcome the monographic limitation (Herscovici, 1998; Long, 2005; Stewart, 2009). These studies show that migrants often benefit from migrating: they improved their social status and, in some case, they even accumulate more wealth. These effects seem to be robust to selection mechanisms. However, most works focus on particular cases in which migrants' success is a result on given and historically specific economic conditions. For instance, in nineteenth century US, migrants' higher upward social

mobility and wealth accumulation is clearly linked to the availability of cheap land and the existence of the agricultural frontier (Stewart, 2006). Moreover, these studies consider individuals at given and separate points of time, for instance from one census to the next. This methodology questions the importance of return and repeated migrations. In all cases, the sources make it difficult to follow occupations of individuals who change their place of residence, especially those who migrate frequently[1].

We combine the TRA survey with military records so as to overcome this limitation: military records give all mobility between twenty and forty-six years old. Thus, we consider both migrant and stayers regardless of their places of residence and, at the same time, we analyze social mobility during the life cycle. Therefore, this study addresses directly the relationship between migration, on the one side, and occupational mobility and wealth accumulation on the other side. The paper proceeds as follows, in the next section we detail the links between geographic mobility and opportunities and we review the literature. In Section III, we describe the sources and data we use to assess migration as well as social status and wealth ownership. In section IV we compare social mobility for migrants and stayers while section V do the same with regards to wealth accumulation Section VI discuss selection and endogeneity issues and section VII concludes.

II Geographic mobility and opportunity

Geographic mobility is usually seen as an investment: an individual chooses to migrate if the expected gains from migration exceed those staying at the same location, taking into account migration costs (Sjaastad, 1962; Borjas, 1994). Therefore, the decision to migrate depends to a large extent on employment opportunities available in different places (Topel, 1986). A strong

[1] For instance, in one of the most extensive studies on social and wealth mobility in the past, Steve Herscovici's, only 377 out of 2085 presumed migrants –less than a fifth– were successfully linked with the next census and used in the analysis (Herscovici, 1998: Table 1, 931). Moreover, migrants represent half of the sample, a proportion that is far from being negligible.

heterogeneity of labor markets should be a factor encouraging migration, with workers having incentives to go to the labor market that offers them the highest expected income. Risk may also be an issue: individuals from the same family may want to work in labor markets where shocks are not correlated (Stark, 1991).

For the historical view, the debate focused so far on different topics on the two side of the Atlantic: American studies concentrate on *intragenerational* mobility as part of the "American dream". They demonstrate that immigrants in the US were highly mobile (Ferrie, 1994). Internal migrants also experienced a much higher social mobility and were more able to accumulate wealth (Herscovici, 1998). However, most of these results are linked to the availability of cheap land, as the most successful migrants become farmers. This is especially true for migration to the frontier (Stewart, 2009). And in fact, retirement choices in the early 20th century were made possible only by rising farm prices (Lee, 1999).

On the other side, European studies favor the study of *intergenerational* mobility (Bonneuil and Rosental, 1999). They focus on the working class experience over the course of industrialization and modernization (Miles, 1993; Baines and Johnson, 1999). And they demonstrate the existence of an intensely mobile group (Gribaudi, 1987): occupational mobility was frequent within the European working class. Blue collar jobs were not to be kept for life. Unskilled workers may later switch to small businesses work –such as innkeeper or grocer– or, conversely, fall into low paid and lower status jobs (streetsweeper for instance). In the classic study by William Sewell in Marseille, wealth prevents downward mobility while education –especially speaking French and not southern dialects– promotes upward mobility (Sewell, 1985).

However, most studies of social mobility focus on one place. They observe migrants and compare them to natives. This clearly undermines their capacity to assess the extent of migrants' advantage or disadvantages with regards to social mobility. Few studies have considered migrants wherever they go (Herscovici, 1998; Long, 2005). And almost no study measures how social mobility evolves with time (for an exception, see Ferrie, 2005).

We will focus on France so as to offer an alternative to the US view. It has been demonstrated that social mobility was higher in the US in the middle of the 19th century but the two countries converge at the beginning of the 20th century (Bourdieu, Ferrie et al., 2009). However, why social mobility differs between the two countries is less well known. The US is somehow exceptional with a huge migrant inflow, an important farming sector, the frontier mechanism and cheap land availability. France, on the other side, experienced limited migration, both out and internal, at least relatively to other industrializing countries. This, in turn, means limited, if any, opportunities to obtain wealth from scratch. Moreover, the large agricultural crisis of the second half of the nineteenth century means that land was not a good investment any more. In fact, in most case, its value decreases. Industrialization is rather limited and concentrated in a few cities but this, in turn, creates relatively important labor market heterogeneity. Rural-urban migrations did exist but on a limited scale until after WWII, which is a particular feature compared with other European countries (Moch, 1992).

Another key point is that education levels were very homogeneous, as almost everyone reached primary education by the end of the 19th century (Furet and Ozouf, 1977). Therefore, contrary to the early 19th century, education is not likely to promote social mobility. As a consequence, geographic mobility appears to be the only way to move socially, especially migration to growing cities. To explore how successful it may have been, we take advantage of a large longitudinal dataset built on military records.

III Data

Analyzing social mobility during the life cycle ideally requires continuous monitoring of both occupations and places of residence. In this study we have only access to the latter through the use of military registers. Occupation, on the other side, is recorded at several key stages of the life cycle: twenty years old, marriage or death. Despite this limitation, we partly solve the dilemma of

the interaction of both phenomena by considering the specific geographical mobility made between two moments of the life cycle for which we possess information on occupation. Thus, we can compare occupation before and after a potential migration to assess the influence of the former on the latter.

To do so, we take advantage of the 3,000 families survey (or TRA survey). Initiated by Jacques Dupâquier this survey constitutes a large historical database of all individuals whose surnames begin with the letters T, R and A, such as "Travers" or "Trabuchet" (Dupâquier and Kessler, 1992; Dupâquier, 2004). The essential drawbacks of this investigation lies in the difficulty to reconstruct the life cycle of a single individual (Bourdieu and Kesztenbaum, 2004). To solve this problem, we add to the core of the survey –marriage and fiscal records– military registers. They provide a continuous monitoring of changes of residence from the age of twenty years old on.

After the defeat against Prussia, the Cissey Law (July 27th, 1872) reorganized the French army. It created a long service –twenty years then twenty-five after 1889– divided into active service (the military service itself) for four years (then three, then two) and reserve (Roynette, 2000; Farcy and Faure, 2003). This new organization involves a constant monitoring of all individuals during their reserve time, that is to say until their final release from military service (forty-six years old). Thus military registers provide information on all residential changes between twenty and forty-six years old (Corvisier, 1992).

Despite their accuracy, military registers do have some shortcomings. The first is selection. All women are excluded. And a small share of the male population is also lacking, those discharged from the army for medical reasons, around ten per cent of the male population aged twenty years old[2]. The second drawback is early exit from the sample. Conscripts can either die or be discharged –for medical reasons only– at any time during their reserve period. We take into account the length of observation of each individual to reduce the negative consequences of this problem.

[2] Other reasons for censured observations are negligible (for instance only 8 over 2900 conscripts are draft-dodger).

We consider a sample of 15 "départements" (French administrative units the size of a county – there are 90 ***département*** in France). This sample was built so as to give a balanced view of France in the second part of the nineteenth century: in addition to Paris and its suburbs, we collected information from rural, urban as well as industrializing areas, from different part of the country[3]. For every ***département*** in the sample, we collected all TRA conscripts born between 1852 and 1900. For each conscript we have personal information on occupation and education at 20 years old, on health as well as every migration he made before 46 years old, or before being discharged of the army. Overall, we study 2900 conscripts, among which 2600 are observed at least one year and 1300 were matched with other sources[4]. We matched them with marriage, to get their occupation at that moment, and with fiscal records, which give us occupation and wealth at death for every deceased.

In brief, we use longitudinal data to track all migrations performed between twenty and forty-six years old. By adding marriage and fiscal records, we compare migrants and stayers based on their social status and wealth. To do so, we make an evaluation of this status according to occupation labels. We build a four-class hierarchy.

IV Measuring social and wealth mobility

Contemporary studies try to measure income differences between migrants and stayers (Solon, 1992; Solon, 2002; Mayer and Lopoo, 2004). They address the issue of migrant selection: those who choose to change the labor market are probably those who benefit the most from such mobility, because their skills are better used elsewhere or maybe because they enjoy a better

[3] The complete set of ***département*** is as follow: Charente (16), Côte d'Or (21), Creuse (23), Finistère (29), Loir-et-Cher (41), Loire (42), Mayenne (53), Pas-de-Calais (62), Haute-Pyrennées (64), Seine (75), Seine-et-Marne (77), Seine-et-Oise (78), Tarn (81), Vaucluse (84) and Vosges (88).

[4] This poor rate of matching is related to time discrepancy between the various sources we use: the last conscripts of our sample were born in 1900 but wedding and fiscal records have not been collected after, respectively, 1900 and 1940. So the second part of the military sample (those born after 1870) is poorly matched with other sources. We are trying to remedy this issue. The collect of Fiscal data for the period 1940-1960 has begun last year and is still under way. Overall, a probit model explaining the probability to link a given conscript to other sources does not show any bias linked to occupation.

match between the characteristics of the local labor market and their own skills. More generally, it is not possible to compare directly the market success of migrants and stayers as migrants are not a random sample of the population.

Even though it is possible to evaluate the benefit of migrating using cross-sectional data and a model taking into account selection, the use of income does introduce several difficulties. Instead of permanent income, studies use only information at one moment of the life cycle; or at best at a few points. To avoid this limitation, we choose to take advantage of the social status that is both more representative of an individual achievement on the labor market and less sensitive to idiosyncratic shocks. The second motivation to use occupational status rather than income lies in the difficulty to have a proper estimate of income for nineteenth century France, especially at the individual level. Thus, to evaluate the effect of migration on individuals' trajectories we will compare the social status before and after migrating.

To do so, we construct a four classes occupational hierarchy: we distinguish two groups of workers, unskilled on the one side, and semi-skilled and skilled on the other side, as well as two groups of high status occupation, farmers and white collar. All these occupations were coded from the initial label in the original sources. We aimed at constituting a measure of social status as well as a proxy for permanent income. In particular, we try to take into account ambiguities between wage-earner and owner. And we also try to control for changes of titles that are not changes of occupation. Taking advantage of this scale we define social mobility between any of these groups, excluding only mobility that occurs between farmer and white collar.

On the other hand, we observe wealth but only at one point, at death (Bourdieu, Postel-Vinay et al., 2004). So we have information on each individual's assets but only at the end of his trajectory. We use it to evaluate accumulation choices, even though we can hardly distinguish between decisions and opportunities. What we observe is only the outcome of accumulation behaviours, without being able to explain which part of it results from choice and which part results from

constraint. However, we can add some controls as the value of assets is heavily dependant on the moment and the place of death. First, those who die young had less time to accumulate and will have, on average, smaller assets. Second, assets ownership is both easier and more rewarding in the countryside than in the city (for instance, during the whole period, buying a single flat was impossible in Paris, only buildings were sold)[5]. Therefore, in all cases, we control by age and type of place of residence at death. In that case, we minimize the bias introduced by using wealth at death[6].

Finally, we try to get a more accurate definition of wealth. We consider the gross value of the asset –excluding debts– to insure comparability across time (before 1901, debts were not recorded by fiscal records). But we can distinguish three kinds of assets: personal wealth, real estate and financial assets. This is quite an important topic as these assets may differently influence migration likelihood. For instance, some wealth may be needed to migrate, or at least to make a long distance migration, but, on the other side, land ownership may deter migration.

In a nutshell, we first consider intragenerational social mobility. We compare the initial occupation of each conscript –at 20 years old– with his occupation later, at marriage or at death[7]. Secondly, we explore wealth accumulation over the life cycle by considering the final position of each conscript: the wealth they have accumulated on the day they died. In each case we contrast migrant and stayers and consider different definitions of migrants. We consider three different kinds of geographic mobility, all three being potential determinants of differences in social and wealth mobility: change of municipality, migration according to distance (stayer/short distance move/long distance move) and rural to urban migration.

[5] Real estate is much costly in city and less easy to acquire there. However, there are no differences for other type of assets.

[6] Another key assumption is that death is a random and purely non-anticipated event. In our case, we implicitly assume that migrants and stayers do not have different anticipation of the moment of their death, which seems quite reasonable.

[7] As a conscript's final occupation, we use occupation at death. But when it is not available, we replace it by occupation at marriage. We take into account the age at which the final occupation is recorded as a control.

V Social mobility

To start we compute social mobility depending on geographic mobility between twenty and forty-six years old. Table 1 presents mobility matrices for both stayers and migrants. Overall, migrants are more socially mobile but the difference is not very large: the figures on the diagonal (those who stay in the same occupation) are roughly ten percent lower for migrants, with a higher difference for farmers and a lower one for white collars. There is no clear pattern to be observed from these results, for instance skilled workers are equally more prone to move upward to white collar and downward to unskilled workers. But these figures also depend on the occupational structure of the two populations. The initial distribution is quite close for the two groups even if, for instance, farmers are slightly underrepresented for migrants compared to stayers (23% against 27%). But the final distribution is quite different between migrants and stayers with fewer farmers on the one side and more unskilled workers and white collars on the other. To take this effect into account, we construct the standardize matrix with each row and each column equal to 1 (or 100). In this case, migrants' advantage in social mobility is higher, the difference being mostly due to a higher social mobility for white collars.

< Table 1 > *around here*

A first way to summarize these results is to compute the share of individuals experiencing social mobility according to their migration status (Table 2). Overall, migrants are much more mobile but both downward and upward: there are 10% less individuals who stay in the same social status among migrants than among stayers. But it also depends on the type of migration. For instance, long distance migrations are much more often associated with social mobility, especially with downward mobility. On the other hand, migrants to the city are much more prone to experience upward social mobility. In both cases, it may result either from different selection process –

migrants to the city are better trained for instance or better fit for urban labor market– or from direct gains from migrating –as labor markets in the city may provide more opportunities to move socially. It is likely to be a combination of the two.

Overall, there is no clear pattern associated with migration. Indeed, migration seems to be a way to take advantage of opportunities but it is also risky and migrants are not always successful. Part of this result may come from migrants' own characteristics: skills and ability may differ between migrants and stayers as well as between migrants. At this point, it is also difficult to exclude reverse causality: those who stay in the same job are less prone to move geographically. In fact, we may imagine they have some opportunities to improve their lot within the same job, something we cannot observe here.

< Table 2 > *around here*

However, in a first attempt to take into account differences between migrants and stayers, we consider personal characteristics of individuals from both groups. We include several conscripts' characteristics that may influence the likelihood of experiencing a social mobility: education at the age of twenty, type of military service, age at which the second occupation is observed, geographic origin (rural/urban/Paris) and orphanage status at the age of twenty. Education is recorded by the army in a 6-scale grid, from complete illiterate conscripts to those with a secondary education degree. However, a large part of the sample belong to those who master read and write; so we decided to construct three groups, those who know how to read and write, those with lower education (illiterate) and those with any degree (either ***brevet***, after 8 years of schooling or ***baccalauréat***, secondary degree). The size of the place of birth (coded as rural/urban/Paris) may also influence social or wealth mobility. Year of birth is included to capture historical trend. The initial occupation –at the age of twenty– may also undermine social and wealth mobility. These variables will be included as control variables in all models exploring

social and wealth mobility. In most cases, results on social mobility are robust to these controls (Table 3). Yet, there is one clear difference between the descriptive statistics and the regression estimates: migrants to the city don't seem to experience a higher social mobility. The effect is weak and not significant even though they have a higher probability to move socially downward than to stay in the same social status.

< Table 3 > *around here*

The most striking result is that migrants from a rural area to the city did not experience higher upward social mobility or only little. This may be linked to the way we define our categories but also to heterogeneity among rural-urban migrants. Another explanation may be related to unobserved heterogeneity not at the migrant level but at the city level: rural-urban is a rough indicator and it may not capture adequately the heterogeneity among municipalities.

Another clear drawback in this analysis is the way occupational groups were made. An unskilled worker in Paris will be in the same category that an unskilled worker in Mourèze (a small village in Southern France). They certainly do the same job (maybe not exactly but very unskilled jobs cannot be so much different, take a quarryman for instance), which completely justify that they are considered the same social status. But one thing is certain: the first one receive a much higher income than its rural counterpart. Therefore, it is some sort of a paradox to measure the link between geographical and social mobility with categories that are insensitive to geographic migration. People migrate to the city because wages are higher there. So arguing that unskilled workers hardly experience more social mobility when moving to the city or that farmers from a rural area experience downward mobility when they become skilled workers in a city is not technically wrong. But it is a little misleading.

A straight way to solve this dilemma would be to compare wages and not occupational classes. Besides the arguments we mention ***supra*** –impossible to assess permanent income and difficulties

to obtain accurate measures of income for nineteenth century France–, there is another limit to this solution: wages are higher in the cities but so are rents. So it is not only wages we must collect but also costs of living, something which is even harder to obtain.

Another solution is to observe wealth, taken as a proxy of accumulation opportunities. Of course, accumulation behaviors may also be different for migrants and stayers which may explain that they end up with different assets value. For instance we could assume that migrants are less risk averse than stayers; then, on average, they will be less prone to accumulate; or, on the contrary, assume that conditions of living in the city require more buffer stock savings than rural life because city dwellers cannot rely on their plot during hard times, unemployment is more frequent for them, and so on. In that case, migrants may have had to save more than their rural counterparts.

At this point, we assume that wealth at death, so the final wealth of an individual, does capture, on average, accumulation possibilities and so differences in real income. In other words, we neglect the fact that migrants and stayers may have had different motivations and tastes for wealth accumulation. We will discuss that point later on. Overall, we do not consider analyzing wealth accumulation as an alternative to analyzing social mobility but as a complement to it.

VI Wealth accumulation

We now turn to wealth at death. We control by age at death as a way to take into account differences in the moment of the life cycle conscripts are in when we observe their wealth. And we assume that wealth at death mirror accumulation possibilities over the life cycle. Therefore as migrants beneficiated from higher real wages –once taken into account differences in cost of living, their income was certainly higher– we expect them to be wealthier that stayers, all other things equal. We compute wealth at death for both migrants and stayers. Results presented in Table 4 clearly show that migrants have less wealth than stayers. This is particularly striking for

those who reside in an urban place: wealth of the stayers is more than three times the wealth of migrants who lived there. The only exception is conscripts who stayed in Paris. In that case, migrants are as wealthy as stayers and even wealthier when considering those who change *département*. Finally, distance seems to have even more deterring consequences on wealth accumulation as long distance migrants are the poorer whatever the place they end up. This may be linked to the high cost of such a migration. But part of these results may also be related to personal characteristics; for example if migrants die younger than stayers.

< Table 4 > *around here*

Again, we must take into account conscripts' personal characteristics. We control by the same variables as in the previous section. We run two separate estimations. First, we estimate the probability of having some asset, the equivalent of half the yearly income of a laborer, 250 francs[8]. Something we can consider as buffer stock savings. Second, we use a linear regression on the value of assets. We regress the log of wealth in an attempt to take into account outliers and the huge heterogeneity of wealth data. We compute log(wealth + 1) so as not to exclude those with no wealth at all[9]. We run two complementary models, the first one excluding those who started as farmers so as to limit the selection bias; the second one considering only those who die in cities so as to measure directly how migrants perform in cities.

Both estimations produce the same results. In all cases, the regressions confirm that migrants are poorer. Excluding farmers does not alter the results, coefficients on migration being strong and significant: an individual who change at least once of commune has 16% chances less to have minimal savings and, overall, the value of his assets is significantly lower. And the effect is even stronger for long distance migrants compared to stayers. These results certainly confirm the

[8] All value are real, given in 1914 Francs.
[9] Using a Tobit model does not alter the results.

findings on social mobility: migrants do not improve their social status but they do not perform better when considering wealth accumulation.

Yet, there is one remarkable exception: rural to urban migrants are wealthier than stayers. The coefficient is always positive even though it is significant only when excluding rural stayers and considering assets value. This means that migrants to cities perform well when compared to urban dwellers. But it does not mean they get any reward from their migration as they do not seem to be significantly wealthier than rural stayers. Both issues question the role of selection: migrants may perform better than natives from their place of destination because they come from a more favorable environment and because they are selected within this environment. And rural to urban migrants may be selected differently than rural to rural migrants, for instance.

< Table 5 > *around here*

< Table 6 > *around here*

Differences in the amount of wealth at death may reflect different opportunities to accumulate wealth as well as different strategies or tastes regarding wealth accumulation. As partible inheritance was the only rule in France, the lower wealth of immigrants may not be explained by a lower value of inheritance for those who move. But individuals may made different use of inherited wealth depending on their migration choice.

But another key issue is selection: migrants may be positively selected according to education or human capital but they may also be negatively selected according to wealth. Indeed, wealthier individuals may have more incentives to stay, for instance if they own a farm or if their father owns one. In that case, migrants would have had a lower wealth only because wealthy people do not migrate. To discuss this issue, we look at what may motivate conscripts to migrate.

VII Selection issues

Finally, in both cases (social mobility and wealth accumulation), there is an issue of migrants' selection. Migrants are very likely to be selected, positively (Long, 2005) or negatively (Abramitzky, Boustan et al., 2009). And, indeed, it has been demonstrated that 19th century France migrants were positively selected according to distance, for instance by education (Heffernan, 1989) or wealth (Bourdieu, Postel-Vinay et al., 2000). Therefore, migration decision is endogenous: if the more skilled or dynamics individuals from the countryside move to the city, it is likely we observe them being more socially mobile even though labor markets in the city hadn't been different from those in the country. In other words, would migrants have experienced social mobility had they not migrated? Then a first issue at stake here is how different migrants and stayers are.

To estimate this difference, we run a probit model explaining the probability to migrate. We include the same conscripts' characteristics as before. We add family variables as potential determinants of migration choices. First, the number of brothers may potentially influence migration choices as we expect those with larger kinship to be more prone to move[10]. Second, we include information on the father that may capture part of conscripts' socio-economic background. Father wealth is included as a dummy variable, distinguishing those who own an asset, whatever small it is, from those without any wealth[11]. Father education as captured by his ability to sign his marriage register is also considered as a dummy variable and finally, father's occupation at the time of his marriage –before the birth of his son– is also included in the analysis.

[10] A more careful analysis should take into account both the number of brothers and birth rank. As the study of migration isn't our primary purpose here, we stay with number of brothers for now. It should be noted that it is the number of brothers who survived until age twenty. We do not have family reconstruction precise enough to take into account those who die during childhood.

[11] Father's age at death is a potential determinant of father's wealth so we also include it in the regression.

As before, we consider three different kinds of geographic mobility. Some effects are indeed different according to the type of migration considered. One thing is clear, though: father characteristics have a great influence on migration decisions and their inclusion also modify individual characteristics role, suggesting that migrants' selection may be captured quite well by family context. Some results vary for rural-urban migration with white collar being more prone than the other groups to move to a city, while they are less prone to move in the main case. The effect of family size is quite clear with conscripts in large kinship being more prone to migrate than those from one or two sons families. However, the effect varies when contrasting change of commune and rural-urban migration: in the first case, the probability to migrate rise strictly with number of brother while in the second one, it is closer to a inverse U-shaped effect, with probability significantly higher for those in 3 and 4 sons families. Migrants are slightly selected by occupation: unskilled workers are more prone to migrate than all other categories but this result is significant only for farmers and it is the opposite conclusion when considering rural-urban migration with white collar more prone to move than workers. Finally, education does influence migration choices: those at the two extremes being more prone to move than the rest of the population, the effect being particularly strong for those with secondary education.

< Table 7 > *around here*

Most results are confirmed when looking at father's characteristics: father's wealth has a strong and negative effect on migration likelihood. This mirrors the fact that farmers –always supposed to own some land– are less prone to move. Again sons of unskilled father have a higher probability to migrate but it is only significant against sons of skilled workers. Overall, migrants appear to be positively selected according to education and negatively selected according to wealth. Except for those who are initially farmers, there are few differences between occupations. However, there are no strong sign of selection and most of it may be captured through father's

wealth. Controlling for the wealth of the father will also allow us to measure wealth mobility for the conscripts and not only their wealth accumulation. This may also help to determine if the lower wealth level of migrants is related to their migration experience or to selection effect linked with the fact that wealthier individuals move less.

Concluding remarks and discussion

At the end of the nineteenth century, France experienced at the same time high economic growth that creates spatial heterogeneity and standardization of education. Then we expect social mobility to be higher for migrants. We show that, indeed, migrants are more socially mobile but they are mobile both downward and upward. Surprisingly enough, migrants' higher social mobility doesn't seem to be related to cities. Part of this result may be due to the way we construct occupational status; for instance conscripts from the countryside stay in the same occupation even though they migrate to a large city with very different working conditions and earnings. So we may underestimate social mobility. But the results on wealth accumulation confirm migrant's relatively bad performance: in all cases but one, migrants have a significantly much lower wealth at the end of their life.

Both results may be linked to the high cost of migrating as well as to different strategies or tastes regarding assets accumulation: wealth accumulation and migration seem to be two different and non-overlapping options. Again, at this point, it is not clear if migrants are less likely to accumulate wealth or if wealthy individuals are less likely to migrate. But it seems that wealth accumulation is part of local strategies that may, in return, deter migration. And, indeed, those whose father owns any wealth have a much lower probability to migrate. Besides the fact that wealth ownership deters migration, selection effects are rather limited, as far as we can conclude from observing conscripts' initial characteristics.

To answer these questions, we have to explore in more details the kind of assets that are accumulated by migrants and stayers and compare them. For instance, rural migrants have little access to urban real estate market. So when they which to accumulate wealth they have to choose between two options: either investing in real estate in their place of departure or investing in other assets. Related issues are migration duration, return migration and repeated moves. It is a recent topic of interest in development economics and scholars shows how remittances and savings are linked with expected migration duration (Dustmann, 1997; Dustmann and Mestres, 2010). Migrations occur within broader strategies that may influence the way individuals choose to invest or save.

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Tables

Table 1. Social mobility depending on geographic mobility

	STAYERS					MIGRANTS					
	Initial Occupation						Initial Occupation				
Final Occupation	White Collar	Farmer	Skilled/ Semiskilled	Unskilled	Row sum	**Final Occupation**	White Collar	Farmer	Skilled/ Semiskilled	Unskilled	Row sum
White Collar	32	4	19	4	59	White Collar	35	9	31	9	84
	(64)	(2.16)	(6.81)	(2.5)	(8.75)		(62.5)	(5.81)	(11.65)	(5.03)	(12.8)
Farmer	0	141	14	13	168	Farmer	4	76	6	14	100
	(0)	(76.22)	(5.02)	(8.13)	(24.93)		(7.14)	(49.03)	(2.26)	(7.82)	(15.24)
Skilled/Semi-Skilled	13	14	199	28	254	Skilled/Semi-Skilled	9	25	166	40	240
	(26)	(7.57)	(71.33)	(17.5)	(37.69)		(16.07)	(16.13)	(62.41)	(22.35)	(36.59)
Unskilled	5	26	47	115	193	Unskilled	8	45	63	116	232
	(10)	(14.05)	(16.85)	(71.88)	(28.64)		(14.29)	(29.03)	(23.68)	(64.8)	(35.37)
Col Sum	50	185	279	160	674	Col Sum	56	155	266	179	656
	(100)	(100)	(100)	(100)	(100)		(100)	(100)	(100)	(100)	(100)
White Collar	78.95	3.17	13.07	4.82	100	White Collar	69.14	5.8	17.45	7.61	100
Farmer	0	81.54	7.03	11.43	100	Farmer	10.96	67.94	4.68	16.42	100
Skilled/Semi-Skilled	15	5.19	64.03	15.78	100	Skilled/Semi-Skilled	11.03	10	57.98	20.99	100
Unskilled	6.05	10.11	15.87	67.97	100	Unskilled	8.86	16.26	19.88	54.99	100
Col Sum	100	100	100	100		Col Sum	100	100	100	100	

Note: Figures are the number of individuals while figures in brackets are the percentage by column. For instance, among stayers, there are 4 farmers at the age of twenty who become white collar later on and this represents 2.16% of all those who are farmers at the age of 20. The second matrix gives standardizes figures with all rows and columns equal to 100. Migrants mean change of municipality (or commune) here.

Table 2. Social mobility depending on geographic mobility

	Social mobility			
	Downward	None	Upward	KHI²
Different commune				
Migrants	22.9	62.0	15.1	17.8***
Stayers	15.6	72.8	11.6	
Different département				
Migrants	22.6	60.7	16.7	13.9***
Stayers	17.6	70.8	11.6	
Distance				
Long distance	27.8	57.4	14.8	27.4***
Short distance	17.2	68.4	14.4	
Stayers	15.2	74.3	10.4	
Rural to urban				
Migrants	23.1	62.6	14.3	3.7
Stayers	18.4	68.5	13.1	
Urban to rural				
Migrants	23.1	55.8	21.2	13.0***
Stayers	18.7	69.0	12.3	
Number of migrations				
None	15.6	72.8	11.6	23.84***
Between 0 and 2	21.5	62.5	16.0	
Between 2 and 5	26.6	56.6	16.8	
More than 5	23.7	67.7	8.6	

Note: Figures are the share of individuals experiencing different types of social mobility. Distance is maximum migration distance between twenty and forty-six years old. Social mobility is compared between 20 years old and either death or marriage.

Table 3. Effect of migration status on the probability of upward or downward mobility – multinomial logistic model

	Social mobility			
	Downward	Upward	N	Log likelihood
Different commune				
Migrants	0.692 ***	0.365 **	1146	-937.4
Stayers	ref.	ref.		
Distance				
Long distance	0.918 ***	0.369 *		
Short distance	0.358	0.361	1146	-934.0
Stayers	ref.	ref.		
Rural to urban				
Migrants	0.392 *	0.176	1146	-945.0
Stayers	ref.	ref.		

Note: Figures are the coefficients of the model. They give the additional chances of experiencing a downward mobility (respectively an upward mobility) rather than no social mobility at all (also rather than no social mobility).
All models include controls for education at the age of twenty, type of military service, age at which the second occupation is observed, geographic origin (rural/urban/Paris) and orphanage status at the age of twenty.

Table 4. Average wealth at death depending on life-cycle migrations and place of residence

		Place of residence		
	All conscripts	**Rural**	**Urban**	**Paris**
Different commune				
Migrants	243	71	89	82
	6338	3975	8075	6501
Stayers	217	68	102	48
	16984	8882	27586	5893
Different département				
Migrants	172	29	89	54
	7657	3595	8075	9159
Stayers	288	110	101	76
	13577	7098	27586	4263
Distance				
Long distance	127	37	44	46
	3432	3077	4226	2956
Short distance	116	34	45	36
	9514	4932	11829	10977
Stayers	217	68	102	48
	16984	8882	27586	5893

Note: Figures are average wealth at death (in constant francs, FF 1914) depending on the type of place of residence at death and geographic mobility before forty-six years old. The figures on the first row are the size of the sample.

Table 5. Effect of migration status on the probability to have at least 250 francs – probit model (marginal effects)

	All sample	**Excluding farmers**	**Urban only**
Different commune			
Migrants	-0.160 ***	-0.145 **	-0.037
Stayers	ref.	ref.	ref.
Distance			
Long distance	-0.221 ***	-0.176 ***	-0.008
Short distance	-0.096	-0.097	-0.065
Stayers	ref.	ref.	ref.
Rural to urban			
Migrants	0.017	0.042	0.161
Stayers	ref.	ref.	ref.

Table 6. Effect of migration status on the value of assets at death (in logarithm) – OLS

	All sample	**Excluding farmers**	**Urban only**
Different commune			
Migrants	-1.236 ***	-1.086 **	-0.215
Stayers	ref.	ref.	ref.
Distance			
Long distance	-1.665 ***	-1.321 ***	-0.100
Short distance	-0.734	-0.779	-0.316
Stayers	ref.	ref.	ref.
Rural to urban			
Migrants	0.322	0.488	1.640 *
Stayers	ref.	ref.	ref.

Table 7. Determinants of geographic mobility

	Different commune		Distance		Rural to urban	
	(1)	(2)	(1)	(2)	(1)	(2)
Education						
Iliterate	0.084 +	0.064	0.219 *	0.156	0.048	0.017
Read and write	ref.	ref.	ref.	ref.	ref.	ref.
Secondary	0.155 +	0.085	0.425 *	0.217	0.457 *	0.381
Urbanisation at birth						
Rural	ref.	ref.	ref.	ref.		
City	-0.050	-0.072	-0.234 ***	-0.206		
Paris	0.031	0.016	0.103	0.165		
Year of birth	0.005 ***	0.007 ***	0.008 ***	0.010 **	0.005 ***	0.005 **
Initial occupation						
Unskilled	ref.	ref.	ref.	ref.	ref.	ref.
Skilled	-0.050	0.012	0.015	0.204 +	0.012	0.029
Farmer	-0.084 *	-0.003	-0.203 **	0.038	-0.072 +	-0.035
White collar	-0.060	-0.008	-0.043	0.103	0.281 ***	0.197
Number of brothers						
None	ref.	ref.	ref.	ref.	ref.	ref.
1	-0.032	0.035	-0.071	0.120	0.008	0.105
2	0.056	0.081	0.152 +	0.242 *	0.113 **	0.225 ***
3	0.057	0.108	0.136	0.400 **	0.113 +	0.192 *
4 and more	0.163 **	0.260 ***	0.435 ***	0.745 ***	0.086	0.077
Father's wealth						
Poor		ref.		ref.		ref.
Wealthy		-0.100 **		-0.187 *		-0.110 *
Father's education						
Do not sign		ref.		ref.		ref.
sign		-0.041		-0.063		0.089 +
Father's occupation at marriage						
Unskilled		ref.		ref.		ref.
Skilled		-0.110 *		-0.289 **		0.091
Farmer		-0.012		-0.116		0.047
White collar		0.040		0.070		0.324 *

Note: Figures give the influence of individual characteristics on the probability to migrate. For change of commune and rural to urban moves, we use a probit model and the figures are marginal effects. For migration according to distance (no move, short distance and long distance), we use an ordered probit model. Reported figures are coefficients of the model.

Other variables included as control in the models: length of active military service, length of observation and orphanage status.