Intergenerational Mobility of Italian immigrants in Germany∗
preliminary draft - please do not quote

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Abstract

This study presents an empirical analysis of intergenerational mobility in educational achievements of Italian immigrants in Germany. For this purpose a model of intergenerational human capital transmission is introduced and applied to the specific situation of immigrants and their offspring in the host country. The model is empirically tested by means of OLS and Probit estimation based on household survey data from German Socioeconomic Panel (GSOEP). Alternative measures to compare intergenerational mobility of immigrants and natives are also determined by the transition-matrix approach. Consistent with the suggestions of previous studies and economic theory, substantial inequality of educational achievements between immigrants and natives is found, with the gap getting lower in the case of „second generation“ immigrants. Nevertheless the findings of this study show that Italian immigrants of first and second generation exhibit high intergenerational mobility, suggesting that the assimilation process of this group in the host country is not slowed down by persistence of educational achievements. In contrast, a relatively high degree of intergenerational education correlation is ascertained in the case of German native population. At last a yet unexplored database from the Registry of Italians Resident Abroad (A.I.R.E.) is presented. Initial analyses basing on this data give evidence for new trends in self-selection and mobility of more recent waves of Italian immigrants in Germany and leave space for further investigations.

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1 Introduction

An useful tool to measure equality of opportunity in a society and between different groups of people, is to determine the influence of social environment and family background on the human capital of individuals. This process of transmission from one generation to the next is called intergenerational mobility.

The more mobile a society is, the less economic outcomes of an individual depend on parental human capital and therefore the higher equality of opportunity (Schütz and Woessmann, 2005). In contrast, in immobile countries situations prevail that increase the influence of family background. These situations can also exist within a society between different groups, for example, between natives and immigrants.

Several studies in the fields of education, migration and labor economics have studied the different outcomes of immigrants compared to natives in terms of education, income or employment status for various countries. Indeed, not only from a scientific point of view the issue is met with great interest, but has experienced particularly high relevance in the political discussion.

Especially in Germany, due to the significant migration history of the last century, the integration of immigrants has become an indispensable subject of social policy measures. For instance statistics show that a large proportion of immigrants are socio-economically disadvantaged. Especially in the field of educational outcomes, immigrants reach worse results than their native counterparts.

According to the German Education Report 2012 (Bildungsbericht, 2012), people with migration background in Germany have in average lower levels of education than the native population. Especially immigrants from former guestworker recruitment states (inter alia Turkey, Italy, Spain, Portugal, Greece, former Yugoslavia) have the lowest educational enrollment rates. Among these, although Italy was the first state signing a bilateral recruitment agreement with Germany in 1955, people with Italian migration background are the second worst group in average educational achievements after the Turks.

Scientific studies have shown these circumstances and searched for possible causes, but mainly without focusing on one particular group of immigrants. Algan et al. (2009) investigate the situation of first and second generation immigrants in Germany, England and France and compare it with native population. The data for Germany are from German Microcensus. Their findings confirm that immigrants in Germany achieve on average lower educational outcomes, measured by the age at which full-time education was abandoned. Italian immigrants are, especially in the second generation, the immigrant group with lowest educational outcomes on average.

The investigations of Kristen and Granato (2007) come to a similar result, also with German Microcensus data but using different methodology. They estimate that children of immigrants\footnote{Also referred to as \textit{second-generation immigrants}.}
have fewer opportunities to achieve the highest degree of German school system (*Abitur*)\(^2\) than their native even-aged counterparts. Once again, the group of Italian immigrants shows as one of the least groups in terms of educational outcomes.

Other studies confirm these findings, such as Luthra (2010) and Schüller (2011) focusing on educational achievements of second-generation immigrants in Germany with data from German Socioeconomic Panel (GSOEP), as well as studies of Riphahn (Riphahn, 2003, 2005), but without distinguishing among different groups of immigrants.

A considerable number of scientific work has also dealt with the analysis of intergenerational education mobility. They mainly agree in classifying Germany as a society with low intergenerational mobility, both in an international comparison (Woessmann, 2008) and taking into account historical trends (Heineck and Riphahn, 2009). Studies like Schnepf (2002), Dustmann (2004) and Bauer and Riphahn (2006) attribute this development primarily to early school selection in German education system.\(^3\)

However, theoretical as well as empirical studies for different countries show, that economic outcomes of immigrants might be influenced by other factors, and may differ from the results of natives, especially in terms of intergenerational mobility. Borjas was the first using the notion of *ethnic capital* (Borjas, 1992) and dealing with intergenerational mobility of immigrants as a separate phenomenon (Borjas, 1993). A recent study, which applies this theoretical framework to Germany to measure both income and educational mobility of immigrants, is Yuksel (2009). His results regarding educational mobility indicate a higher intergenerational persistence of natives toward second generation immigrants, meaning that second-generation immigrants are more mobile in terms of education.

Since so far the great majority of studies analyzing intergenerational mobility handled immigrants of different nationalities as an own outstanding group, the aim of our study is to examine intergenerational educational mobility of Italian immigrants in Germany based on GSOEP data and compare it with mobility of natives. Particular attention will be paid to the differences between first and second generation immigrants to check if lower educational achievements can be really interpreted as a lack of integration. In another step, the influence of factors are controlled, which may be regarded as indicative of ethnic capital, such as different migration cohorts.

Works, among others by Dustmann (Dustmann, 1999; Dustmann and van Soest, 2001; Casey and Dustmann, 2008), focus on language skills of local language as the principal intergenerational transmission channel. Therefore in this work we take care of this particular aspect in the analysis of intergenerational mobility in order to explain human capital development and transmission mechanisms.

Last, a yet unexplored database from the Registry of Italians Resident Abroad (A.I.R.E.)

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\(^2\) Corresponding to UNESCO’s *International Standard Classification of Education* level 3 (ISCED III).

\(^3\) Also Schütz and Woessmann (2005) and Woessmann (2008) show on basis of an international comparison that early school selection contributes to inequality of educational opportunities.
is presented. Some initial analyses on demographic aspects and educational achievements give evidence for new trends in self-selection and intergenerational mobility of more recent waves of Italian immigrants in Germany.

2 Conceptual Framework

2.1 Intergenerational Human Capital Transmission

Basing mainly on Checchi (2006) we consider a dynamic model for several generations. The human capital of an individual \(i\) of generation \(t\) is a function of ability \((A)\), education \((E)\) and an inherited component of parents’ income \((X)\).

\[
H_{it} = f \left( X_{it}, A_{it}, E_{it} \right)
\]

Since both the skills and the education mainly originate from a (genetic or cultural) inheritance process, and we assume inherited income to be a positive function of the realized income of parents \((X_{it} = f \left( Y_{it-1} \right))\), the mechanism of intergenerational mobility can be displayed, under assumption of a linear relationship, as a system of three equations

\[
Y_{it} = \theta E_{it} + \varepsilon A_{it} + \mu Y_{it-1} + u_{1it}, \quad (1)
\]

\[
A_{it} = \delta + \alpha A_{it-1} + u_{2it}, \quad (2)
\]

\[
E_{it} = \eta E_{it-1} + \gamma Y_{it-1} + \tau A_{it}. \quad (3)
\]

The income of \(i\) in \(t\) is here a function of his education, his abilities and the income of his parents (generation \(t - 1\)). The error term \(u_1\) is \(i.i.d.(0, \sigma_1^2)\) and could be considered as “luck” in the labor market. Skills \(A_{it}\) are transmitted from parents with factor \(\alpha\), where \(u_2 \sim i.i.d.(0, \sigma_2^2)\). Education \(E_{it}\) is determined, apart from one’s own abilities, from parental education and income. This effect can be explained on the one hand, due to the assumption of altruistic parents whose investments in the formation of their offspring rise with their own earned income, and on the other, by the positive effect of the socio-economic and cultural environment, such as living in better neighborhoods, number of books at home and help with homework.

Exploiting the recursive properties of the system and substituting, equation (3) can be reduced to the following expression:
\[ E_{it} = c + \beta E_{it-1} + a A_{it-1} + g Y_{it-2} + \epsilon_{it}, \]  

(4)

where the error term includes an individual and an intergenerational component (\( \epsilon_{it} = \gamma u_{1it-1} + u_{2it} \)). This property suggests that family-specific features in the variance of the error term must be expected in the empirical estimation - i.e. heteroscedasticity.

The analysis of intergenerational education mobility is mainly focused on the parameter \( \beta \). This so-called transmission or persistence parameter indicates the extent to which economic benefits transfer (in this case in terms of education) from one generation to the next. As can be seen from the composition of the parameter, this includes all direct and indirect transmission effects of returns to education.

If ignoring the - theoretically possible - situation of a negative correlation between own and parental education (\( \beta < 0 \)), there are two possible boundary solutions, \( \beta = 0 \) and \( \beta = 1 \) that stand for complete mobility and immobility. The closer the value goes to zero (one), the higher (lower) is intergenerational mobility and the lower (higher) is intergenerational persistence.

As an extension, it is possible to estimate equation (4) in logarithmic values. The resulting coefficient can be interpreted as intergenerational elasticity, i.e. as a measure of the percentage change in children educational outcomes over a marginal change in parental educational outcomes.

Since the distribution of educational outcomes from generation to generation may change, the size of the coefficient will depend on the variance of these distributions in the two generations. Therefore, for comparisons of different groups to make sense, a measure is needed that takes into account the differences in distributions. Following Björklund and Jäntti (2009) the intergenerational correlation coefficient is suitable for this purpose. It is composed by multiplication of elasticity and the ratio of standard deviations of both generations:

\[ \varphi = \beta (\sigma_{t-1}/\sigma_{t}). \]  

(5)

As can be easily seen, the correlation coefficient corresponds to the intergenerational elasticity, when variance is constant in \( t \) and \( t - 1 \).

2.2 Estimation

2.2.1 OLS

Following the model in the previous section, education can be displayed as a function of parental educational background. This transmission mechanism is supported especially by cultural, socioeconomic and genetic factors. To isolate the impact of these factors is not completely possible in empirical analyses since some features are not observable - as for example certain skills or talents.
However, what indeed can be estimated with the used data set, is the combined effect of factors that influence the process of educational transmission from one generation to the next. To ensure that this effect is adjusted for disturbances also for other factors must be controlled.

The relationship can be represented formally as follows:

\[ E_{it} = f ( E_{it-1}, D_{it}, I_{it} ) \]

where \( E \) is the education of an individual of generation \( t \), and the education of his parents in generation \( t - 1 \), measured by the years of schooling. \( D \) includes all controls for demographic factors - gender, federal state and birth cohort - and \( I \) the migration-specific effects, or ethnic capital, which is measured by migration time and language capital.

The basic model in its final form - equation (4) - is brought to be estimated by OLS in the following form:

\[ E_{it} = c + \beta E_{it-1} + \beta m E_{it-1} m + \gamma E_{it} D_{it} + \gamma m D_{it} m + \tau I_{it} m + \epsilon_{it} \]  \( (6) \)

where \( m \) is an interaction term between Dummies for each of the immigrant groups (Italians and other immigrants) and whether the individual is a first or second generation immigrant. Therefore, for natives is always \( m = 0 \).

As shown by the modeling of error terms in the previous section, we will face probably a case of heteroscedasticity. To overcome the problem, a methodology is applied to obtain robust standard errors by allowing clustering. This method mitigates the assumption of independent observations and allows the existence of correlation within certain groups (clusters), in this particular case within families. The observations are thus independent between families, but not necessarily within families. The fixed group feature to identify families in GSOEP data is the household of origin id.

Furthermore to estimate intergenerational correlation coefficients, the equation is estimated separately for each sample using the method of beta coefficients. The estimated intergenerational correlation parameter therefore corresponds to \( \hat{\varphi} = \hat{\beta}(s_{t-1}/\hat{s}_t) \).

### 2.2.2 Probit

The task now is to find a model to validate the results of OLS estimations in terms of educational persistence and influence of other factors. For this purpose a Probit model, which estimates the relative probability to achieve a higher school degree given certain characteristics. \(^5\)

The underlying assumption in this case is that an individual reaches at least a secondary school certificate (Realschule, 10 years of schooling), if his or her human capital is above a certain

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\(^4\)The here presented equation shows a simplified form of the one actually used in the estimations which can, however, be trivially obtained watching at the estimation results tables.

\(^5\)This approach follows Schüller (2011).
threshold. This threshold can be (without loss of generality) normalized to 0. Thus the model can be formulated as follows:

$$P_{rob}(E_{it} > 9) = P_{rob}(H_{it} > 0) = \Phi(c + \beta E_{it-1} + \gamma D_{it} + \tau I_{it})$$  \hspace{1cm} (7)$$

where \(\Phi(\cdot)\) represents the cumulative distribution function (CDF) and \(E, D\) and \(I\) are defined as in the previous section.

Analogously as in the OLS model different effects between subgroups (Natives, Italian immigrants of the first generation etc.) will be controlled by dummy variables. Equally, robust standard errors are estimated using the cluster approach.

## 3 Data

### 3.1 Sample

The data used in this study derives from German Socioeconomic Panel (GSOEP), which records by survey annual information on demographic, employment-related and other characteristics for a representative number of individuals and households in Germany, including an over-sample of immigrants.\(^6\) GSOEP is in many ways appropriate for the analysis of intergenerational educational mobility of immigrants. First, the data set contains detailed information on various education variables of individuals and information on educational attainment of parents. Other family-specific features can also be easily assigned using household number and origin household number. Second, a high information content on migration-specific variables is included, such as first and second citizenship, migrational background, year of arrival and colloquial language at home.

We identified immigrants through migrational background. Possible values of this variable are no, direct, indirect and not further differentiated migrational background. All individuals with direct or indirect migrational background are defined as immigrants all others as natives. Among immigrants, those born in Germany whose parents immigrated to Germany (indirect migrational background) has been identified as second generation immigrants.\(^7\) Also in this category are individuals born abroad by parents of non-German nationality (direct migrational background), but immigrated before the age of ten; i.e. before first selection of German education system after primary school.\(^8\)

\(^6\)For a more detailed explanation on German Socioeconomic Panel see Haisken-DeNew and Frick (2005) and Frick (2006).

\(^7\)It should be mentioned that ”no migrational background” in GSOEP includes also individuals born in Germany with no information on citizenship of their parents. Thus, results might be partly distorted by some second generation immigrant coded as natives. However, in regression analysis we take only individuals with information on the educational level of parents, so - under the assumption that, unusually, information on parental education are given when information on parental citizenship are not - this distortion should weaken significantly.

\(^8\)The definition of second generation immigrants in the economic literature is non-uniform. While studies with focus on migration decisions and self-selection normally define individuals who immigrated before the age of 16 as
The sample of first and second generation immigrants is further divided into two subcategories: Italians and other immigrants. Italians has been identified through two nationality variables and another indicating the country of second nationality. Since the main focus of the study are Italian immigrants and their differences to German native population, the subcategory of other immigrants is not further specified. For this reason, the analysis of this category can provide only very generalized results, that we only include for reasons of completeness. To maintain comparability between the different subgroups, only individuals born in the period from 1919 to 1993 have been considered, orienting to the first and last born Italian in data.

The data set is a pooled cross-section with only one observation for each individual, namely the corresponding to the last entry in GSOEP. The final sample consists of 35920 individuals, of which 5410 have a migrational background, which corresponds to a share of about 15% (See Table 1). Thus, the sub-sample of immigrants is slightly under-represented, since according to German Federal Statistical Office (Destatis, 2010) about 19% of the total population in Germany has a migrational background. In the used sample 2015 people with migrational background were born in Germany (about 37%). Together with those immigrated before the age of ten, it accounts a number of 2858 observations, what means that about 53% of immigrants are second generation immigrants. First and second generation Italians are respectively 295 and 341 individuals in the data set. So the subdivision of Italian immigrants between the two sub-groups, first and second generation, is consistent with the total group of immigrants.

Among these Riphahn (2005), Hammarstedt and Palme (2006) and Algan et al. (2009) define only people born in the host country from foreign parents as second generation immigrants. Others, such as Schüller (2011) and Luthra (2010), put also individuals into this category, who immigrated before getting six or seven years old. This latter decision is justified by the age of school entrance in primary school. Also in this work the latter approach has been adopted, setting the highest age of migration to be considered as second generation at nine, following Casey and Dustmann (2008).

Originally, the proportion in GSOEP fits with official statistics. However, as we can only consider individuals who have at least information on their own education, the number of observations decreased significantly, especially among migrants.

<table>
<thead>
<tr>
<th></th>
<th>absolute</th>
<th>percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Natives</td>
<td>30510</td>
<td>84.94</td>
</tr>
<tr>
<td>Italians</td>
<td>1st gen. 636</td>
<td>295</td>
</tr>
<tr>
<td></td>
<td>2nd gen. 341</td>
<td></td>
</tr>
<tr>
<td>Other immigrants</td>
<td>1st gen. 4774</td>
<td>2257</td>
</tr>
<tr>
<td></td>
<td>2nd gen. 2517</td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>35920</td>
<td>100</td>
</tr>
</tbody>
</table>

9 Originally, the proportion in GSOEP fits with official statistics. However, as we can only consider individuals who have at least information on their own education, the number of observations decreased significantly, especially among migrants.
3.2 Variables Identification

To investigate intergenerational persistence of educational achievements the dependent variable is generated as a metric variable defining regular years of schooling by educational levels specified in data.\textsuperscript{10} Hereby, years of schooling has been imputed following this schema: no school (ISCED 0) = 0 years, no degree (ISCED I) = 5 years, \textit{Hauptschule} (ISCED II) = 9 years, \textit{Realschule} (ISCED II) = 10 years, \textit{Fachhochschulreife} (ISCED III) = 12 years, \textit{Abitur} (ISCED III) = 13 years.

Such kind of imputation basing on regular schooling time avoids distortions that could derive from “repeaters” or late enrollments, if using actual years of schooling or the age when education was left as dependent variable.

Since information on educational achievements are crucial for the analysis in this study, individuals who did not yet finished their schooling career or with no or non classifiable information available are omitted from sample.

To define parental educational background we apply the same imputation manner as before using variables in GSOEP about educational degrees of mothers and fathers. Since not all individuals have information on both parents, the variable is generated adopting the available information or, if the degree of both parents is indicated, of the parent with better degree. This is consistent with the assumption that higher education of one parent is sufficient to gain an information advantage. Moreover correlation coefficients between education of mother and father are high for all subgroups in the sample. Individuals who have no or non classifiable information on parental education stay in the sample for descriptive analyses, but are not included in regressions.

Other variables derives from demographic and migration-specific characteristics such as gender, federal state of residence, year of birth, year of immigration and colloquial language at home. Following Riphahn (2005) we generated variables to control for different effects across birthcohorts. Here we plausibly assume a linear trend attenuating at a certain point, since our measurement of education is limited at the top by the maximum of 13 years of school. Table 2 supports the plausibility of this assumption.\textsuperscript{11}

In order to catch temporary migration-specific factors migration cohorts were generated based on the historical waves of immigration to Germany.\textsuperscript{12} Each individual was assigned to the migration cohort of the first member of his family who immigrated to Germany. Thus, for example, the 1956-1973 cohort includes both \textit{guestworker} as well as their (possibly in Germany born) children.

The last feature, which is controlled for, is language capital. The variable in GSOEP provides information about which language is predominantly spoken at home: German or own native lan-

\textsuperscript{10}This approach follows Chiswick and DebBurman (2004) and Black and Devereux (2011).

\textsuperscript{11}The generated variables are \textit{birthcohort} = (year of birth - 1900) / 10 and \textit{birthcohort2} = \textit{birthcohort} squared / 100. We performed the regressions with these, as well as with dummies for different birth cohorts. Since, however, the results did not change significantly in terms of intergenerational mobility and support the assumption of a linear relationship, the latter are not included in the written version of this work.

\textsuperscript{12}See Ulrich (2001) for the migration history of Germany in general and Pichler (2010) for the history of Italian immigration to Germany.
guage. This characteristic is more appropriate to measure transmission-mechanisms of language capital than variables indicating language skills, used in several other studies, since the latter are based on own evaluations of individuals, and therefore very exposed to serious measurement errors (Dustmann, 1999; Dustmann and van Soest, 2001).

3.3 Descriptive Analysis

A first overall view of the data already reveals some fundamental differences between subgroups and time-specific trends. For this purpose, the sample is divided into birth and migration cohorts. Table 7 and 8 show the distribution of observations among this cohorts, highlighting that most immigrants belong to the guestworker-cohort (1956-1973).

In terms of education, very strong, group-specific differences can be observed, but also a generally positive trend. As shown in Table 2 average years of schooling of natives are higher than those of Italian and other immigrants. However, the second generation shortens the distance to their native counterparts in comparison to their parents’ generation. This last fact can be possibly attributed to the mechanism of assimilation of immigrants, while the overall positive trend is due to the structural component of mobility, caused by economic growth and other structural changes.

Furthermore, a look at standard errors evidences the importance of estimating intergenerational correlation coefficients in order to take into account different variances between sub-groups and generations.

Since the previously rendered distinctions still do not control for other factors, a first analysis should also be presented that tries to go beyond the purely descriptive framework. Table 3 shows the results of a regression with regular years of schooling as dependent variable, controlling for demographic factors and dummy variables for each group of immigrants. This method of analysis corresponds to the study of Algan et al. (2009), whose results are compared with the ones of this study.

Our estimation results confirm that in educational achievements, measured by years of schooling, immigrants are among natives. Moreover, as in Algan et al. (2009) and consistent with economic theory (Chiswick and DebBurman, 2004), mean education of second generation immigrants is higher than the one of first generation immigrants.

Nevertheless, while the coefficient of Italian first generation male corresponds almost exactly to the value determined by Algan et al. (2009), for the other categories our estimated values differ substantially. On the one side, differences between Italian male and female are of smaller extent in our estimations. On the other, distance between educational achievements of natives and Italian second generation immigrants turns out to be smaller. Finally the coefficients corresponding to the joined group of other immigrants are consistently within the intervals between highest and lowest value of all other immigrant groups but Italians in Algan et al. (2009).

However, it should be pointed out in conclusion, that analyses in Algan et al. (2009) are not
based on the same data set, time period and definition of second generation immigrants as in our study. Furthermore, the dependent variable of Algan et al. (2009) estimations is the age in which full-time education was left by individuals. So, as already mentioned, their results could be slightly distorted because of late enrollments and school grade repetitions.

<table>
<thead>
<tr>
<th>Birth cohort</th>
<th>Natives</th>
<th>Italians</th>
<th>Other immig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1st gen.</td>
<td>2nd gen.</td>
<td>1st gen.</td>
</tr>
<tr>
<td>1919 - 1949</td>
<td>9.82</td>
<td>5.97</td>
<td>9*</td>
</tr>
<tr>
<td></td>
<td>(1.455)</td>
<td>(1.773)</td>
<td>(0)</td>
</tr>
<tr>
<td>1950 - 1970</td>
<td>10.48</td>
<td>7.49</td>
<td>9.46</td>
</tr>
<tr>
<td></td>
<td>(1.654)</td>
<td>(2.463)</td>
<td>(1.744)</td>
</tr>
<tr>
<td></td>
<td>(1.782)</td>
<td>(2.742)</td>
<td>(1.757)</td>
</tr>
</tbody>
</table>

Standard deviations in parenthesis; *value based only on 4 observation

<table>
<thead>
<tr>
<th>Dep.Variable</th>
<th>Data</th>
<th>Regular years of schooling</th>
<th>Age left full-time education</th>
</tr>
</thead>
</table>
4 Results

4.1 Transition Matrices and Mobility Indexes

The first glance on intergenerational mobility provides the comparison of (Italian) immigrants with German natives by means of the transition matrix approach. Following Checchi et al. (1999), Shorrocks (1978) and Sommers and Conlisk (1979), three transition matrix based indicators are used: second-largest eigenvalue, trace and determination index. Thereby, a value of 1 in any of these indexes interprets as total equality of opportunity, while in cases of total immobility from one generation to the next the transition matrix equates to the identity matrix ($P = I$). Summing up the absolute values on the diagonal of the transition matrix one gets the number of families where children achieved the same educational outcomes as their parents. The ratio of this value and the total number of families in a population gives the degree of relative immobility.

Table 4 shows relative immobility, correlation coefficients for own versus parental education and computed mobility indexes for the three subgroups. What we can see clearly is a higher relative mobility and a lower correlation coefficient in the case of Italian immigrants. Also the mobility indexes seem to confirm higher equality of opportunity in this subgroup in comparison to natives and other immigrants. Moreover in the case of other immigrants we can see that correlation coefficient and second-eigenvalue index leads to a different interpretation than the other three.

It is important to keep in mind that the subdivision into educational classes for the transition matrix is done without taking into account specific time effects, like changing years of compulsory schooling (structural mobility). One should also keep in mind, that these indexes have been criticized in earlier studies regarding their consistence. Therefore, the regression analysis in the following paragraphs will complement the transition matrix approach and offer a more detailed picture on the cases of mobility.

4.2 OLS

The findings of OLS regressions basically confirm the first impressions given by the transition matrix approach: Italian immigrants are more mobile (or rather less immobile) than native German counterparts. This is true for first and second generation immigrants. Table 5 displays the results from OLS regressions for persistence, elasticity and intergenerational correlation.

As one can see clearly from the results, influence of parental educational background decreases when controlling for demographic factors, but still remain on a relatively high level in case of natives in comparison to Italian immigrants of the 1st and 2nd generation. Furthermore, controlling for ethnic capital decreases even more the impact of parental schooling for immigrants. However in this

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13 For a brief discussion of these and other indicators of mobility see Geweke et al. (1986) and Dardanoni (1993).
14 Transition Matrices in Appendix (Table 10 to 12).
15 A classification scheme taking into account this type of changes can be found in Checchi (1997).
Table 4: Scalar indicators for mobility

<table>
<thead>
<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td>relative immobility</td>
<td>0.517</td>
<td>0.347</td>
<td>0.398</td>
<td>0</td>
</tr>
<tr>
<td>$\text{corr}(E_t/E_{t-1})$</td>
<td>0.421</td>
<td>0.332</td>
<td>0.520</td>
<td>0</td>
</tr>
<tr>
<td>$ML(P) = 1 -</td>
<td>\lambda_2</td>
<td>$</td>
<td>0.522</td>
<td>0.577</td>
</tr>
<tr>
<td>$MT(P) = \frac{k - \text{trace}(P)}{k-1}$</td>
<td>0.802</td>
<td>0.896</td>
<td>0.837</td>
<td>1</td>
</tr>
<tr>
<td>$MD(P) = 1 -</td>
<td>\text{det}(P)</td>
<td>^{(1/(k-1))}$</td>
<td>0.869</td>
<td>1</td>
</tr>
</tbody>
</table>

Correlation coefficient: Own education vs. parental education (in years of schooling). $\lambda_2$ is the second largest eigenvalue of the transition matrix $P$; $\text{trace}(P)$ and $\text{det}(P)$ trace and determinant of $P$; $k$ is the number of classes.

In the last case we could be facing multicollinearity, because plausibly there might be a certain causality between parental language capital and educational achievements. Also migration-cohort-variables could be correlated with this and other exogenous variables, such that multicollinearity could not be excluded through an analysis of rank and correlation coefficients (See Table 9). For this reason further interpretations of this study concerning intergenerational mobility of educational outcomes will tie to the control of demographic factors. The influence of ethnic capital variables will be discussed more precisely in a forthcoming section.

The results evidence also the importance of not reducing the analysis of intergenerational mobility to persistence and elasticity parameters, but evaluate as well intergenerational correlation coefficients.

Influence of parental educational background on children’s educational outcomes are high for natives and the aggregated group of other immigrants. In contrast, Italian immigrants exhibit higher mobility rates. Differences between Italian 1st and 2nd generation immigrants are low when looking at persistence and elasticity parameters, but more remarkable for intergenerational correlation parameters. Being true for every case, the 2nd generation is less mobile than the 1st, but still considerably more mobile than natives and other immigrants. It is also very conspicuous, that other immigrants show lower persistence and elasticity parameters, but higher (1st generation) or similar (2nd generation) intergenerational correlation than natives.

Table 14 shows the overall results of OLS estimation. Looking at the coefficients of demographic factors it becomes apparent that for each group specific characteristics can be denoted. On the one hand side the variable male have a significant negative influence on educational outcomes for Italian second generation immigrants, while coefficients are positive for the other subgroups. This would mean that female Italian immigrants of the second generation in Germany achieve higher educational outcomes than their male counterparts.\(^\text{17}\)

\(^\text{17}\)Single regressions for male and female point also out that there is no gender difference in intergenerational mobility in case of natives, other immigrants and Italian first generation immigrants. On the contrary Italian
Another fact that stands out is the regional divergence of educational achievements in all immigrant subgroups, while in case of native population there are no significant differences between new and old federal states.\textsuperscript{18} This might depend on the historical reason that recruitment of mainly unskilled guestworker for the industry took place mainly in the German Federal Republic before reunification.

Variables measuring time effects exhibit the expected rising trend and oscillate around a stable level from a certain point on. Only in case of Italian first generation immigrants the trend is continuously rising, what might be evidence that younger birth cohorts encompass a relative low number of people with the highest educational level.

\textbf{Ethnic capital} The influence of ethnic capital is measured by time of migration and language skills. For that purpose migration cohorts are defined, mirroring the year of migration to Germany of the first immigrated person in the family.

As could be expected Italian first generation immigrants, who immigrated before the official recruiting contracts and after 1987 - or rather the first immigrated person in their family - have measurably higher educational outcomes than immigrants of the \textit{guestworker-cohort} (1956-1973) and the subsequent migration cohort (1974-1987). An interesting finding is that children of guestworker - i.e. second generation immigrants of the 1956-1973 cohort - achieve relative to the other cohorts very high educational outcomes in comparison to their parents. Generally this observation might be attributed to structural mobility, but is probably also a sign of ongoing assimilation.

Indeed, the relatively high education of second generation immigrants prefigure an interesting scenario leaving space to different interpretations. First, it could give evidence for self-selection of immigrant population. Ample evidence from various studies suggest, that guestworker in Germany were negatively selected regarding to their qualifications.\textsuperscript{19} However, concerning unobservable characteristics, like motivation, the findings of this study could point to positive self-selection of Italian immigrants. As known from human capital theory, the migratory process is an intertemporal investment in human capital, i.e. people leave their country to achieve a better life for themselves and for their children. The consequences are high investments in the education of the children, especially when a longer stay in the host country is intended. Relatively higher educational achievements of children belonging to the guestworker-cohort hint to this type of dynamic.

Another possible interpretation is return migration. Less integrated immigrants, whose children didn’t achieve high educational levels, might be returned to their country and would so have been

\footnotesize{female of second generation exhibits a considerably higher degree of intergenerational correlation than their male counterparts (0.26 Female; 0.07 Male). See Appendix, Table 13.}

\footnotesize{18}New federal states are the ones that belonged to the former German Democratic Republic before reunification.

<table>
<thead>
<tr>
<th></th>
<th>(1)</th>
<th>(2)</th>
<th>(3)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>persistence</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Natives</td>
<td>0.496</td>
<td>0.462</td>
<td>0.462</td>
</tr>
<tr>
<td>Italians 1st gen.</td>
<td>0.191</td>
<td>0.125</td>
<td>0.017</td>
</tr>
<tr>
<td>Italians 2nd gen.</td>
<td>0.160</td>
<td>0.142</td>
<td>0.016</td>
</tr>
<tr>
<td>Other immig. 1st gen.</td>
<td>0.431</td>
<td>0.402</td>
<td>0.253</td>
</tr>
<tr>
<td>Other immig. 2nd gen.</td>
<td>0.271</td>
<td>0.288</td>
<td>0.161</td>
</tr>
<tr>
<td><strong>elasticity</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Natives</td>
<td>0.475</td>
<td>0.443</td>
<td>0.443</td>
</tr>
<tr>
<td>Italians 1st gen.</td>
<td>0.078</td>
<td>0.032</td>
<td>-0.017</td>
</tr>
<tr>
<td>Italians 2nd gen.</td>
<td>0.098</td>
<td>0.085</td>
<td>0.005</td>
</tr>
<tr>
<td>Other immig. 1st gen.</td>
<td>0.244</td>
<td>0.222</td>
<td>0.122</td>
</tr>
<tr>
<td>Other immig. 2nd gen.</td>
<td>0.191</td>
<td>0.203</td>
<td>0.103</td>
</tr>
<tr>
<td><strong>intergenerational correlation</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Natives</td>
<td>0.395</td>
<td>0.368</td>
<td>0.368</td>
</tr>
<tr>
<td>Italians 1st gen.</td>
<td>0.188</td>
<td>0.078</td>
<td>-0.043</td>
</tr>
<tr>
<td>Italians 2nd gen.</td>
<td>0.177</td>
<td>0.153</td>
<td>0.008</td>
</tr>
<tr>
<td>Other immig. 1st gen.</td>
<td>0.489</td>
<td>0.443</td>
<td>0.254</td>
</tr>
<tr>
<td>Other immig. 2nd gen.</td>
<td>0.331</td>
<td>0.354</td>
<td>0.183</td>
</tr>
<tr>
<td><strong>controls</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>demog. factors (D)</td>
<td>x</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>ethnic capital (I)</td>
<td></td>
<td></td>
<td>x</td>
</tr>
</tbody>
</table>

Persistence: Values of natives correspond to the coefficient ($\hat{\beta}_e$) of parents’ years of schooling in OLS-regressions with own years of schooling as dependent variable; in the case of immigrants it corresponds to the sum of the coefficient for parent’s years of schooling and the interacted term with a dummy for each subgroup ($\hat{\beta}_e + \hat{\beta}_m$). Elasticity: Regressions with logarithmic values (If years of schooling are 0, ln1=0 is used). Intergenerational correlation: Single regressions through beta-coefficients for each subgroup ($\hat{\phi} = \hat{\beta}(\bar{\sigma}_t-1/\bar{\sigma}_t)$).
disappeared from official statistics.

For the case of language capital, the expected positive influence of German language could be found for all subgroups of immigrants. Following the assumption, that parents speak German very well and transmitted this knowledge to their offspring if spoken language at home is German, this finding could be interpreted as another evidence for intergenerational transmission of human capital. Individuals, who received from their parents the useful language skills of the host country - i.e. learned or spoke German in their parents’ household - achieve better educational outcomes. The negative influence of native language spoken at home confirms this point.\textsuperscript{20} German spoken language at home could also be a sign of mixed couples with at least one parent possibly (but not necessarily) of German origin.

\subsection{4.3 Probit}

A verification through Probit (Table 16-18) confirms substantially the results of linear estimations. Consistent with the other findings of this study, we see that the marginal effect of an additional parental year of schooling on the probability of higher education is higher for natives than for immigrants. Probit results confirm also the subgroup of Italian immigrants as the group with lowest influence of parental educational background on children’s educational achievements, denoting a slightly higher effect in case of the second generation. The effect diminishes if controlling for ethnic capital and strengthens the hypothesis of multicollinearity.

Moreover, Probit estimates are in line with linear regression results, showing that Italian second generation female have higher probabilities to achieve higher education than male. Furthermore also the confrontation between old and new federal states and the rising and leveling trend of birth cohorts seem to be confirmed.

Regarding migration cohorts we find a strong negative effect of Italian immigrants of the guestworker-cohort in both generations. This would mean that children of guestworker have a lower probability to achieve a higher school degrees than second generation immigrants of other cohorts. So, although linear estimation results show that especially children of guestworker have improved in comparison to their parents, Probit estimation results display that they have still very low probabilities to achieve higher school degrees. This fact highlights the very low education of Italians who immigrated as guestworker to Germany.

Finally, the Probit results also confirm a positive effect of German spoken language at home and a negative effect of native language for educational achievements.

\footnotesize{\textsuperscript{20}In the case of other immigrants with negative sign of the coefficient of the dummy variable. Unfortunately in case of Italian immigrants there are no significant results in this last variable.}
5 New Italian migrations: a descriptive analysis using registry data

The analysis in this chapter builds on a data set of the Registry of Italians Resident Abroad (A.I.R.E.)\textsuperscript{21} for the German federal states Berlin, Brandenburg, Saxony, Saxony-Anhalt and Thuringia in 2012. The A.I.R.E. was introduced in 1990 and records personal data of Italian citizens who stay for at least one year abroad or were born outside of Italy and registered at the competent Italian consulate. It contains information on 16383 people, including 14975 with Italian citizenship. The remaining 1409 people with other citizenship in data are spouses or other family members of Italian immigrants and are therefore not considered in the following analysis. Italian citizens are about 60\% male (9029) and approximately 40\% female (5946).\textsuperscript{22}

The comparison between first and second generation immigrants - identified as before - evidences some fundamental differences.\textsuperscript{23} There are more than twice first generation immigrants in data than second generation. In addition, a significantly higher proportion of men is recorded for the first category, while gender distribution is more balanced among the second (see Table 19).

Furthermore, a subdivision in birth and migration cohorts as done in the analysis with GSOEP data reveals a significantly different structure between the two data sets. This is consistent with expectations, since this A.I.R.E. record contains only individuals from areas of the former German Democratic Republic (with exception of West-Berlin), which did not sign recruitment agreements with Italy.

Table 20 shows that most Italians resident in Berlin, Brandenburg, Saxony, Saxony-Anhalt and Thuringia were born after 1970, and only a small proportion before 1950.\textsuperscript{24} Considering migration time (Table 21), it points out that only a very small proportion of Italian families in the designated German provinces falls into the guestworker-cohort. The majority of people in this data immigrated after German reunification. Thus it is evident that Italian immigrants in these federal states may have different characteristics than the former guestworker and their descendants.

\textbf{Education} We focus now on educational attainments of Italian immigrants in A.I.R.E. records. Figure 1 represents the temporal evolution of average years of schooling.\textsuperscript{25} The distribution is very heterogeneous until 1940, possibly due to the low number of observations. Thereafter and until

\textsuperscript{21}Anagrafe degli italiani residenti all’estero
\textsuperscript{22}The gender distribution among family members of other nationality is about 35\% men (494) and approximately 65\% women (915).
\textsuperscript{23}The definition of first generation includes all Italians, whose place of birth is located outside of Germany, while those born in Germany or immigrated before the age of ten are defined as second generation immigrants. Within this last category could also fall immigrants from later generations than the second.
\textsuperscript{24}Even if one adjusts the least and highest year of birth to the sample in GSOEP (1919 and 1993), the distribution does not change significantly (before 1950: 13.99\%; 1950-1970: 40.03\%; after 1970: 45.98\%).
\textsuperscript{25}Years of schooling have been imputed following this classification scheme: "Nessun Titolo' (no degree) 0 years, "Elementary" (primary school) 5 years, "Scuola Media" (lower secondary school degree) 8 years, "Diploma" (upper secondary school degree) 13 years, "Laurea" (university degree) 16 years.
Figure 1: Average years of schooling by year of birth - Italian immigrants in Berlin, Brandenburg, Saxony, Saxony-Anhalt and Thuringia.

1980 a nearly steady positive trend leads from an initial average of about 8 years of schooling in the forties to about 13 in the eighties. This development includes certainly a structural component of mobility, but could also be due to changes in self-selection mechanisms.

After the mid-eighties there is a rapid downturn and a largely heterogeneous distribution, what may be mainly due to the fact that younger individuals did not finish (or start) school education or did not updated the information at the registration office.\textsuperscript{26} The following analysis will therefore be limited to individuals of whom we assume they have at least completed school education.

Table 6 shows the distribution by educational achievement including only individuals born prior to 1992 - i.e. 21 years old or older. The majority of individuals of both generations has achieved at least an upper secondary school degree (first generation: 56.18 % and second generation: 53.52 %).

In order to further refine the analysis we consider the temporal evolution of average years of

\textsuperscript{26}Update of personal data in the A.I.R.E. happens either by choice at any moment or when applying for a new passport or identity card. Thus especially for people who are born in Germany and possibly possess German citizenship, too, the failure rate could be relatively high.
Table 6: Educational attainments - Italian immigrants in A.I.R.E. data

<table>
<thead>
<tr>
<th>Degree (years of schooling)</th>
<th>1st gen.</th>
<th>2nd gen.</th>
</tr>
</thead>
<tbody>
<tr>
<td>no degree (0)</td>
<td>66</td>
<td>72</td>
</tr>
<tr>
<td></td>
<td>0.86 %</td>
<td>7.57 %</td>
</tr>
<tr>
<td>primary school (5)</td>
<td>861</td>
<td>26</td>
</tr>
<tr>
<td></td>
<td>11.26 %</td>
<td>2.73 %</td>
</tr>
<tr>
<td>lower secondary school (8)</td>
<td>2424</td>
<td>344</td>
</tr>
<tr>
<td></td>
<td>31.70 %</td>
<td>36.17 %</td>
</tr>
<tr>
<td>upper secondary school (13)</td>
<td>2059</td>
<td>367</td>
</tr>
<tr>
<td></td>
<td>26.93 %</td>
<td>38.59 %</td>
</tr>
<tr>
<td>university (16)</td>
<td>2237</td>
<td>142</td>
</tr>
<tr>
<td></td>
<td>29.25 %</td>
<td>14.93 %</td>
</tr>
<tr>
<td>N</td>
<td>7647</td>
<td>951</td>
</tr>
</tbody>
</table>

Only individuals born before 1992. Years of schooling imputed.

This descriptive analysis already shows an increasing trend toward higher levels of education. Especially in recent decades Italian immigration waves to Berlin, Brandenburg, Saxony, Saxony-Anhalt and Thuringia seem to be characterized by positive self-selection in terms of education. In case of second generation immigrants, however, there seem basically to be a rising trend, too, but characterized by significantly greater heterogeneity.

Finally, potential problems should be mentioned that could lead to distortions in the A.I.R.E. data. First, the migration time used so far corresponds to registration date at the correspondent Italian consulate. So if an individual should have moved from one to another federal state under different consular jurisdiction, this last registration date would count as year of immigration to Germany, which does not correspond to the real migration time. The same problem could occur when people are temporarily migrated to Italy or in another country and later returned to Germany.

Second, a bias could exist in educational attainment. It is possible that individuals with lower education give no answer in the questionnaire about their educational achievements. The resulting situation would lead to non-response bias in data that would have to be neutralized by appropriate methods.\(^{27}\)

Solutions to these problems, as well as detailed analyses of Italian immigrants in A.I.R.E. data should be subject of future studies.

\(^{27}\)For a detailed discussion of non-response bias see Frick and Grabka (2005, 2007) and Berg (2005).
6 Conclusions

This study confirms the low performance in educational attainments of Italian immigrants even after controlling for various factors, but depicts a somehow better (or at least not disastrous) scenario than previous studies did in case of second generation immigrants. It was also found that after controlling for demographic factors and parental educational background, Italian and other second generation immigrants are not less likely to obtain higher school degrees than natives. In a more detailed analysis of migration time, significant cohort-specific differences were found. A generally positive trend to higher educational outcomes over time (structural mobility) was recorded across all subgroups.

Persistence, elasticity and intergenerational correlation of educational outcomes has been estimated for German natives, as well as for Italian and other immigrants. Thus, it was found that even after controlling for structural mobility and other demographic, as well as migration-specific factors, the group of Italian immigrants is more mobile than natives and the average of other immigrants.

These findings suggest that lower educational outcomes of Italian immigrants are just an effect of an unconcluded assimilation process, which is however driven by high intergenerational educational mobility. The reason, why educational achievements of Italian immigrants not yet converged with those of natives, may be due to the very low starting position - especially of Italians immigrated as guestworker - and the relatively high persistence within the native population. It cannot be excluded, however, that other factors may play a role, such as the setting in families for which no higher education is needed, institutional discrimination by German school system or causes of similar nature. These cannot be detected with the available data and quantitative methods and are therefore beyond the scope of this work. Nevertheless, as mentioned before, the causal probability of obtaining higher school degrees is not lower for second generation immigrants than for natives, after controlling for parental educational background. So we can presume the effect of these other factors to be relatively slight.

The results might also give evidence for positive self-selection with respect to the motivation of immigrants. But this interpretation does not take into account the possibility of existing reverse migration that could skew the results. So studies about self-selection of immigrants should focus particularly on this aspect.

The important role of language skills for intergenerational human capital transmission of immigrants in the host country could also be confirmed (Dustmann and van Soest, 2002; Casey and Dustmann, 2008). For instance, second generation immigrants whose common language at home is German, achieve better qualifications than those, whose common language is their native language. Furthermore, language skills showed up as one of the most relevant channels to explain the persistence mechanism. But the causal sequence between language skills and educational attainment is still undefined and therefore should be examined more in detail.
Finally, first analyses with registry data (A.I.R.E.) show that Italian migration flows to Germany are not only a phenomenon caused by recruitment agreements of the fifties and sixties. Hereby, Italian immigrants of more recent migration waves have significantly different observable characteristics than former ones, e.g. higher education. Therefore, future studies based on registry data sets, like A.I.R.E. for Italian immigrants, could open new research possibilities and lead to new findings about intergenerational mobility and self-selection of immigrants.

References


Table 7: Number of observations by year of birth (GSOEP)

<table>
<thead>
<tr>
<th>birthcohort</th>
<th>Natives</th>
<th>Italians</th>
<th>Other immig.</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1st gen.</td>
<td>2nd gen.</td>
<td>1st gen.</td>
<td>2nd gen.</td>
</tr>
<tr>
<td>1919 - 1949</td>
<td>10727</td>
<td>141</td>
<td>4</td>
<td>931</td>
</tr>
<tr>
<td></td>
<td>35.16 %</td>
<td>47.80 %</td>
<td>1.17 %</td>
<td>41.25 %</td>
</tr>
<tr>
<td></td>
<td>42.08 %</td>
<td>47.46 %</td>
<td>43.99 %</td>
<td>41.25 %</td>
</tr>
<tr>
<td>1971 - 1993</td>
<td>6943</td>
<td>14</td>
<td>187</td>
<td>395</td>
</tr>
<tr>
<td></td>
<td>22.76 %</td>
<td>4.75 %</td>
<td>54.84 %</td>
<td>17.50 %</td>
</tr>
</tbody>
</table>

N | 30510   | 295      | 341       | 2257    | 2517   | 35920  |

7 Appendix

Table 14: Persistence - OLS regressions in absolute terms

<table>
<thead>
<tr>
<th>Parental Educational Background</th>
<th>(1)</th>
<th>(2)</th>
<th>(3)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Parents’ years of schooling</td>
<td>0.496***</td>
<td>0.462***</td>
<td>0.462***</td>
</tr>
<tr>
<td></td>
<td>(0.00724)</td>
<td>(0.00773)</td>
<td>(0.00773)</td>
</tr>
<tr>
<td>- * 1st gen. Italians (0/1)</td>
<td>-0.305***</td>
<td>-0.337***</td>
<td>-0.445***</td>
</tr>
<tr>
<td></td>
<td>(0.0537)</td>
<td>(0.0543)</td>
<td>(0.0514)</td>
</tr>
<tr>
<td>- * 2nd gen. Italians (0/1)</td>
<td>-0.336***</td>
<td>-0.320***</td>
<td>-0.446***</td>
</tr>
<tr>
<td></td>
<td>(0.0475)</td>
<td>(0.0486)</td>
<td>(0.0588)</td>
</tr>
<tr>
<td>- * 1st gen. Other immig. (0/1)</td>
<td>-0.0655***</td>
<td>-0.0600***</td>
<td>-0.209***</td>
</tr>
<tr>
<td></td>
<td>(0.0162)</td>
<td>(0.0171)</td>
<td>(0.0207)</td>
</tr>
<tr>
<td>- * 2nd gen. Other immig. (0/1)</td>
<td>-0.225***</td>
<td>-0.174***</td>
<td>-0.301***</td>
</tr>
<tr>
<td></td>
<td>(0.0190)</td>
<td>(0.0193)</td>
<td>(0.0268)</td>
</tr>
<tr>
<td>1st gen. Italian (0/1)</td>
<td>0.267</td>
<td>3.707***</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.312)</td>
<td>(1.213)</td>
<td></td>
</tr>
</tbody>
</table>

statistical significance level * 0.1 ** 0.05 *** 0.01.
<table>
<thead>
<tr>
<th>Demographic Factors</th>
<th>(1)</th>
<th>(2)</th>
<th>(3)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2nd gen. Italian (0/1)</td>
<td>2,958***</td>
<td>0,709</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0,349)</td>
<td>(2,433)</td>
<td></td>
</tr>
<tr>
<td>1st gen. Other immigr. (0/1)</td>
<td>-0,314**</td>
<td>-0,213</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0,130)</td>
<td>(0,561)</td>
<td></td>
</tr>
<tr>
<td>2nd gen. Other immigr. (0/1)</td>
<td>2,271***</td>
<td>0,851*</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0,181)</td>
<td>(0,499)</td>
<td></td>
</tr>
<tr>
<td><strong>Demographic Factors</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male (0/1)</td>
<td>0,0841***</td>
<td>0,0841***</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0,0154)</td>
<td>(0,0154)</td>
<td></td>
</tr>
<tr>
<td>Resident in old Bundesland (0/1)</td>
<td>-0,000742</td>
<td>-0,000742</td>
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</tr>
<tr>
<td></td>
<td>(0,0216)</td>
<td>(0,0216)</td>
<td></td>
</tr>
<tr>
<td>Birthcohort (i.e. calendar year - 1900)/10</td>
<td>0,594***</td>
<td>0,594***</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0,0295)</td>
<td>(0,0295)</td>
<td></td>
</tr>
<tr>
<td>Birthcohort Squared /100</td>
<td>-4,139***</td>
<td>-4,139***</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0,271)</td>
<td>(0,271)</td>
<td></td>
</tr>
<tr>
<td>Male * Ita.1st.Gen.</td>
<td>0,194</td>
<td>0,193</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0,188)</td>
<td>(0,186)</td>
<td></td>
</tr>
<tr>
<td>Male * Ita.2nd.Gen.</td>
<td>-0,465***</td>
<td>-0,526***</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0,179)</td>
<td>(0,197)</td>
<td></td>
</tr>
<tr>
<td>Male * Other.1st.Gen.</td>
<td>0,261***</td>
<td>0,149</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0,0920)</td>
<td>(0,0964)</td>
<td></td>
</tr>
<tr>
<td>Male * Other.2nd.Gen.</td>
<td>0,00907</td>
<td>-0,139</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0,0789)</td>
<td>(0,111)</td>
<td></td>
</tr>
<tr>
<td>Old Bundesland * Ita.1st.Gen.</td>
<td>-2,981***</td>
<td>2,807</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0,411)</td>
<td>(2,128)</td>
<td></td>
</tr>
<tr>
<td>Old Bundesland * Ita.2nd.Gen.</td>
<td>-1,208***</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0,308)</td>
<td>(0)</td>
<td></td>
</tr>
<tr>
<td>Old Bundesland * Other.1st.Gen.</td>
<td>-0,844***</td>
<td>-0,500*</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0,214)</td>
<td>(0,260)</td>
<td></td>
</tr>
<tr>
<td>Old Bundesland * Other.2nd.Gen.</td>
<td>0,254</td>
<td>0,538</td>
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statistical significance level * 0.1 ** 0.05 *** 0.01.
<table>
<thead>
<tr>
<th>Birthcohort * Ita.1st.Gen.</th>
<th>(1)</th>
<th>(2)</th>
<th>(3)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>-0.760</td>
<td>-0.467</td>
<td>(0.574) (0.761)</td>
</tr>
<tr>
<td>Birthcohort * Ita.2nd.Gen.</td>
<td>0.742</td>
<td>1.348</td>
<td>(0.749) (1.507)</td>
</tr>
<tr>
<td>Birthcohort * Other.1st.Gen.</td>
<td>-0.0469</td>
<td>0.330</td>
<td>(0.214) (0.258)</td>
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<tr>
<td>Birthcohort * Other.2nd.Gen.</td>
<td>0.156</td>
<td>0.579*</td>
<td>(0.154) (0.308)</td>
</tr>
<tr>
<td>Birthcohort Sq.* Ita.2nd.Gen.</td>
<td>-3.914</td>
<td>-7.643</td>
<td>(5.532) (10.59)</td>
</tr>
<tr>
<td>Birthcohort Sq.* Other.1st.Gen.</td>
<td>2.351</td>
<td>-0.110</td>
<td>(2.050) (2.429)</td>
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<tr>
<td>Birthcohort Sq.* Other.2nd.Gen.</td>
<td>-0.983</td>
<td>-3.896*</td>
<td>(1.276) (2.297)</td>
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</tbody>
</table>

**Ethnic capital**

**Migration Cohort Effects**

<table>
<thead>
<tr>
<th>Migrated before 1955 (0/1) * Ita.1st.Gen.</th>
<th>(1)</th>
<th>(2)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0.941</td>
<td>(1.875)</td>
</tr>
<tr>
<td>Migrated before 1955 (0/1) * Ita.2nd.Gen.</td>
<td>-2.571</td>
<td>(5.436)</td>
</tr>
<tr>
<td>Migrated before 1955 (0/1) * Other.1st.Gen.</td>
<td>0.401</td>
<td>(0.750)</td>
</tr>
<tr>
<td>Migrated before 1955 (0/1) * Other.2nd.Gen.</td>
<td>-0.125</td>
<td>(1.157)</td>
</tr>
<tr>
<td>Migrated 1956-1973 (0/1) * Ita.1st.Gen.</td>
<td>-2.680</td>
<td>(1.820)</td>
</tr>
<tr>
<td>Migrated 1956-1973 (0/1) * Ita.2nd.Gen.</td>
<td>-2.323</td>
<td>(5.401)</td>
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statistical significance level * 0.1 ** 0.05 *** 0.01.
<table>
<thead>
<tr>
<th></th>
<th>(1)</th>
<th>(2)</th>
<th>(3)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Migrated 1956-1973 (0/1) * Other.1st.Gen.</td>
<td>-1,449**</td>
<td></td>
<td>(0,676)</td>
</tr>
<tr>
<td>Migrated 1956-1973 (0/1) * Other.2nd.Gen.</td>
<td>-0,214</td>
<td></td>
<td>(1,131)</td>
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<tr>
<td>Migrated 1974-1987 (0/1) * Ita.1st.Gen.</td>
<td>-2,624</td>
<td></td>
<td>(1,891)</td>
</tr>
<tr>
<td>Migrated 1974-1987 (0/1) * Ita.2nd.Gen.</td>
<td>-3,221</td>
<td></td>
<td>(5,440)</td>
</tr>
<tr>
<td>Migrated 1974-1987 (0/1) * Other.1st.Gen.</td>
<td>-0,497</td>
<td></td>
<td>(0,729)</td>
</tr>
<tr>
<td>Migrated 1974-1987 (0/1) * Other.2nd.Gen.</td>
<td>-0,0508</td>
<td></td>
<td>(1,177)</td>
</tr>
<tr>
<td>Migrated after 1988 (0/1) * Ita.1st.Gen.</td>
<td>0</td>
<td></td>
<td>(0)</td>
</tr>
<tr>
<td>Migrated after 1988 (0/1) * Ita.2nd.Gen.</td>
<td>-1,642</td>
<td></td>
<td>(5,345)</td>
</tr>
<tr>
<td>Migrated after 1988 (0/1) * Other.1st.Gen.</td>
<td>-0,913</td>
<td></td>
<td>(0,666)</td>
</tr>
<tr>
<td>Migrated after 1988 (0/1) * Other.2nd.Gen.</td>
<td>-0,301</td>
<td></td>
<td>(1,185)</td>
</tr>
<tr>
<td><strong>Spoken Language at Home</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>German (0/1) * Ita.1st.Gen.</td>
<td>0,885</td>
<td></td>
<td>(0,587)</td>
</tr>
<tr>
<td>German (0/1) * Ita.2nd.Gen.</td>
<td>0,722**</td>
<td></td>
<td>(0,296)</td>
</tr>
<tr>
<td>German (0/1) * Other.1st.Gen.</td>
<td>1,180***</td>
<td></td>
<td>(0,161)</td>
</tr>
<tr>
<td>German (0/1) * Other.2nd.Gen.</td>
<td>0,733***</td>
<td></td>
<td>(0,139)</td>
</tr>
<tr>
<td>Native language (0/1) * Ita.1st.Gen.</td>
<td>0,652</td>
<td></td>
<td>(0,481)</td>
</tr>
</tbody>
</table>

statistical significance level * 0.1 ** 0.05 *** 0.01.
<table>
<thead>
<tr>
<th></th>
<th>(1)</th>
<th>(2)</th>
<th>(3)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Native language (0/1) * Ita.2nd.Gen.</td>
<td>0.415</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.303)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Native language (0/1) * Other.1st.Gen.</td>
<td></td>
<td>-0.827***</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>(0.187)</td>
<td></td>
</tr>
<tr>
<td>Native language (0/1) * Other.2nd.Gen.</td>
<td></td>
<td>-2.020*</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>(1.137)</td>
<td></td>
</tr>
<tr>
<td>_cons</td>
<td>5.479***</td>
<td>3.862***</td>
<td>3.862***</td>
</tr>
<tr>
<td></td>
<td>(0.0709)</td>
<td>(0.104)</td>
<td>(0.104)</td>
</tr>
<tr>
<td>N</td>
<td>35073</td>
<td>35073</td>
<td>33681</td>
</tr>
<tr>
<td>$R^2$</td>
<td>0.267</td>
<td>0.296</td>
<td>0.314</td>
</tr>
<tr>
<td>$AIC$</td>
<td>132428.1</td>
<td>131079.6</td>
<td>124997.9</td>
</tr>
<tr>
<td>$BIC$</td>
<td>132512.8</td>
<td>131325.1</td>
<td>125393.9</td>
</tr>
</tbody>
</table>

Results of OLS with Years of Schooling as dependent variable.
Robust standard errors in parenthesis (Clustering using original household-number).
Statistical significance level * 0.1 ** 0.05 *** 0.01.

Table 15: Elasticity - OLS regressions in logarithmic terms

<table>
<thead>
<tr>
<th></th>
<th>(1)</th>
<th>(2)</th>
<th>(3)</th>
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</thead>
<tbody>
<tr>
<td><strong>Parental Educational Background</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Parents’ years of schooling</td>
<td>0.475***</td>
<td>0.443***</td>
<td>0.443***</td>
</tr>
<tr>
<td></td>
<td>(0.00848)</td>
<td>(0.00916)</td>
<td>(0.00916)</td>
</tr>
<tr>
<td>- * 1st gen. Italians (0/1)</td>
<td>-0.397***</td>
<td>-0.411***</td>
<td>-0.460***</td>
</tr>
<tr>
<td></td>
<td>(0.0305)</td>
<td>(0.0314)</td>
<td>(0.0298)</td>
</tr>
<tr>
<td>- * 2nd gen. Italians (0/1)</td>
<td>-0.377***</td>
<td>-0.358***</td>
<td>-0.438***</td>
</tr>
<tr>
<td></td>
<td>(0.0364)</td>
<td>(0.0371)</td>
<td>(0.0461)</td>
</tr>
<tr>
<td>- * 1st gen. Other immigr. (0/1)</td>
<td>-0.231***</td>
<td>-0.221***</td>
<td>-0.321***</td>
</tr>
<tr>
<td></td>
<td>(0.0124)</td>
<td>(0.0133)</td>
<td>(0.0144)</td>
</tr>
<tr>
<td>- * 2nd gen. Other immigr. (0/1)</td>
<td>-0.285***</td>
<td>-0.240***</td>
<td>-0.340***</td>
</tr>
<tr>
<td></td>
<td>(0.0188)</td>
<td>(0.0196)</td>
<td>(0.0241)</td>
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</table>

Statistical significance level * 0.1 ** 0.05 *** 0.01.
<table>
<thead>
<tr>
<th>Demographic Factors</th>
<th>(1)</th>
<th>(2)</th>
<th>(3)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st gen. Italian (0/1)</td>
<td>0.500***</td>
<td>0.779***</td>
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</tr>
<tr>
<td></td>
<td>(0.0518)</td>
<td>(0.163)</td>
<td></td>
</tr>
<tr>
<td>2nd gen. Italian (0/1)</td>
<td>0.811***</td>
<td>0.608*</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.0711)</td>
<td>(0.321)</td>
<td></td>
</tr>
<tr>
<td>1st gen. Other immigr. (0/1)</td>
<td>0.364***</td>
<td>0.412***</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.0259)</td>
<td>(0.0760)</td>
<td></td>
</tr>
<tr>
<td>2nd gen. Other immigr. (0/1)</td>
<td>0.649***</td>
<td>0.456***</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.0418)</td>
<td>(0.0735)</td>
<td></td>
</tr>
<tr>
<td>Demographic Factors</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male (0/1)</td>
<td>0.00627***</td>
<td>0.00627***</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.00154)</td>
<td>(0.00154)</td>
<td></td>
</tr>
<tr>
<td>Resident in old Bundesland (0/1)</td>
<td>-0.00243</td>
<td>-0.00243</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.00211)</td>
<td>(0.00212)</td>
<td></td>
</tr>
<tr>
<td>Birthcohort (i.e. calendar year - 1900)/10</td>
<td>0.0581***</td>
<td>0.0581***</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.00292)</td>
<td>(0.00292)</td>
<td></td>
</tr>
<tr>
<td>Birthcohort Squared /100</td>
<td>-0.411***</td>
<td>-0.411***</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.0270)</td>
<td>(0.0270)</td>
<td></td>
</tr>
<tr>
<td>Male * Ita.1st.Gen.</td>
<td>0.0268</td>
<td>0.0304</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.0268)</td>
<td>(0.0256)</td>
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</tr>
<tr>
<td>Male * Ita.2nd.Gen.</td>
<td>-0.0491**</td>
<td>-0.0586**</td>
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</tr>
<tr>
<td></td>
<td>(0.0212)</td>
<td>(0.0250)</td>
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</tr>
<tr>
<td>Male * Other.1st.Gen.</td>
<td>0.0398***</td>
<td>0.0275**</td>
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</tr>
<tr>
<td></td>
<td>(0.0117)</td>
<td>(0.0122)</td>
<td></td>
</tr>
<tr>
<td>Male * Other.2nd.Gen.</td>
<td>0.00369</td>
<td>-0.0114</td>
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</tr>
<tr>
<td></td>
<td>(0.00875)</td>
<td>(0.0130)</td>
<td></td>
</tr>
<tr>
<td>Old Bundesland * Ita.1st.Gen.</td>
<td>-0.349***</td>
<td>0.653**</td>
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</tr>
<tr>
<td></td>
<td>(0.0510)</td>
<td>(0.270)</td>
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</tr>
<tr>
<td>Old Bundesland * Ita.2nd.Gen.</td>
<td>-0.129***</td>
<td>0</td>
<td></td>
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<tr>
<td></td>
<td>(0.0296)</td>
<td>(0)</td>
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</tr>
<tr>
<td>Old Bundesland * Other.1st.Gen.</td>
<td>-0.118***</td>
<td>-0.0592*</td>
<td></td>
</tr>
</tbody>
</table>

statistical significance level * 0.1 ** 0.05 *** 0.01.
<table>
<thead>
<tr>
<th></th>
<th>(1)</th>
<th>(2)</th>
<th>(3)</th>
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<tbody>
<tr>
<td></td>
<td>(0.0280)</td>
<td>(0.0336)</td>
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<tr>
<td>Old Bundesland * Other.2nd.Gen.</td>
<td>0.0302</td>
<td>0.0796*</td>
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<tr>
<td></td>
<td>(0.0191)</td>
<td>(0.0425)</td>
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<tr>
<td>Birthcohort * Ita.1st.Gen.</td>
<td>-0.0649</td>
<td>-0.0362</td>
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</tr>
<tr>
<td></td>
<td>(0.0761)</td>
<td>(0.09994)</td>
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<tr>
<td>Birthcohort * Ita.2nd.Gen.</td>
<td>0.0590</td>
<td>0.174</td>
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<td></td>
<td>(0.0921)</td>
<td>(0.199)</td>
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<tr>
<td>Birthcohort * Other.1st.Gen.</td>
<td>-0.0353</td>
<td>0.0364</td>
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<td></td>
<td>(0.0279)</td>
<td>(0.0339)</td>
<td></td>
</tr>
<tr>
<td>Birthcohort * Other.2nd.Gen.</td>
<td>0.0114</td>
<td>0.0413</td>
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<tr>
<td></td>
<td>(0.0175)</td>
<td>(0.0368)</td>
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</tr>
<tr>
<td>Birthcohort Sq.* Ita.1st.Gen.</td>
<td>1.471*</td>
<td>1.259</td>
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</tr>
<tr>
<td></td>
<td>(0.791)</td>
<td>(1.092)</td>
<td></td>
</tr>
<tr>
<td>Birthcohort Sq.* Ita.2nd.Gen.</td>
<td>-0.254</td>
<td>-1.005</td>
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</tr>
<tr>
<td></td>
<td>(0.666)</td>
<td>(1.385)</td>
<td></td>
</tr>
<tr>
<td>Birthcohort Sq.* Other.1st.Gen.</td>
<td>0.663**</td>
<td>0.160</td>
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</tr>
<tr>
<td></td>
<td>(0.264)</td>
<td>(0.315)</td>
<td></td>
</tr>
<tr>
<td>Birthcohort Sq.* Other.2nd.Gen.</td>
<td>-0.0515</td>
<td>-0.250</td>
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</tr>
<tr>
<td></td>
<td>(0.143)</td>
<td>(0.272)</td>
<td></td>
</tr>
</tbody>
</table>

**Ethnic capital**

**Migration Cohort Effects**

Migrated before 1955 (0/1) * Ita.1st.Gen. 0.265
(0.234)

Migrated before 1955 (0/1) * Ita.2nd.Gen. 0.150
(0.740)

Migrated before 1955 (0/1) * Other.1st.Gen. 0.501***
(0.0961)

Migrated before 1955 (0/1) * Other.2nd.Gen. 0.479***
(0.151)

Migrated 1956-1973 (0/1) * Ita.1st.Gen. -0.297
(0.228)

statistical significance level * 0.1 ** 0.05 *** 0.01.

31
<table>
<thead>
<tr>
<th>Event Period</th>
<th>Group 1</th>
<th>Group 2</th>
<th>Group 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Migrated 1956-1973 (0/1)</td>
<td>* Ita.2nd.Gen.</td>
<td>0,160</td>
<td>(0,738)</td>
</tr>
<tr>
<td></td>
<td>* Other.1st.Gen.</td>
<td>0,202**</td>
<td>(0,0912)</td>
</tr>
<tr>
<td></td>
<td>* Other.2nd.Gen.</td>
<td>0,464***</td>
<td>(0,147)</td>
</tr>
<tr>
<td>Migrated 1974-1987 (0/1)</td>
<td>* Ita.1st.Gen.</td>
<td>-0,299</td>
<td>(0,237)</td>
</tr>
<tr>
<td></td>
<td>* Ita.2nd.Gen.</td>
<td>0,0528</td>
<td>(0,741)</td>
</tr>
<tr>
<td></td>
<td>* Other.1st.Gen.</td>
<td>0,337***</td>
<td>(0,0981)</td>
</tr>
<tr>
<td></td>
<td>* Other.2nd.Gen.</td>
<td>0,479***</td>
<td>(0,154)</td>
</tr>
<tr>
<td>Migrated after 1988 (0/1)</td>
<td>* Ita.1st.Gen.</td>
<td>0</td>
<td>(0)</td>
</tr>
<tr>
<td></td>
<td>* Ita.2nd.Gen.</td>
<td>0,255</td>
<td>(0,730)</td>
</tr>
<tr>
<td></td>
<td>* Other.1st.Gen.</td>
<td>0,278***</td>
<td>(0,0901)</td>
</tr>
<tr>
<td></td>
<td>* Other.2nd.Gen.</td>
<td>0,465***</td>
<td>(0,152)</td>
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</tbody>
</table>

**Spoken Language at Home**

<table>
<thead>
<tr>
<th>Language</th>
<th>Group 1</th>
<th>Group 2</th>
<th>Group 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>German</td>
<td>* Ita.1st.Gen.</td>
<td>0,141*</td>
<td>(0,0805)</td>
</tr>
<tr>
<td></td>
<td>* Ita.2nd.Gen.</td>
<td>0,0848***</td>
<td>(0,0323)</td>
</tr>
<tr>
<td></td>
<td>* Other.1st.Gen.</td>
<td>0,167***</td>
<td>(0,0202)</td>
</tr>
<tr>
<td></td>
<td>* Other.2nd.Gen.</td>
<td>0,0795***</td>
<td>(0,0154)</td>
</tr>
</tbody>
</table>

statistical significance level * 0.1 ** 0.05 *** 0.01.
<table>
<thead>
<tr>
<th></th>
<th>(1)</th>
<th>(2)</th>
<th>(3)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Native language (0/1) * Ita.1st.Gen.</td>
<td>0.0951</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.0663)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Native language (0/1) * Ita.2nd.Gen.</td>
<td>0.0684*</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.0397)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Native language (0/1) * Other.1st.Gen.</td>
<td>-0.125***</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.0259)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Native language (0/1) * Other.2nd.Gen.</td>
<td>-0.281*</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.161)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>_cons</td>
<td>1.243***</td>
<td>1.131***</td>
<td>1.131***</td>
</tr>
<tr>
<td></td>
<td>(0.0193)</td>
<td>(0.0219)</td>
<td>(0.0219)</td>
</tr>
<tr>
<td>N</td>
<td>35073</td>
<td>35073</td>
<td>33681</td>
</tr>
<tr>
<td>R²</td>
<td>0.287</td>
<td>0.316</td>
<td>0.351</td>
</tr>
<tr>
<td>AIC</td>
<td>-25127.3</td>
<td>-26564.0</td>
<td>-27177.9</td>
</tr>
<tr>
<td>BIC</td>
<td>-25042.7</td>
<td>-26318.6</td>
<td>-26781.9</td>
</tr>
</tbody>
</table>

Results of OLS with Years of Schooling as dependent variable.
Robust standard errors in parenthesis (Clustering using original household-number).
statistical significance level * 0.1 ** 0.05 *** 0.01.
Table 8: Number of observations by year of immigration (GSOEP)

<table>
<thead>
<tr>
<th>Migration cohort</th>
<th>1st gen.</th>
<th>2nd gen.</th>
<th>1st gen.</th>
<th>2nd gen.</th>
</tr>
</thead>
<tbody>
<tr>
<td>before 1955</td>
<td>2</td>
<td>4</td>
<td>45</td>
<td>65</td>
</tr>
<tr>
<td></td>
<td>0.68 %</td>
<td>1.17 %</td>
<td>1.99 %</td>
<td>2.58 %</td>
</tr>
<tr>
<td>1956 - 1973</td>
<td>230</td>
<td>254</td>
<td>1.136</td>
<td>1.281</td>
</tr>
<tr>
<td></td>
<td>77.97 %</td>
<td>74.49 %</td>
<td>50.33 %</td>
<td>50.89 %</td>
</tr>
<tr>
<td>1974 - 1987</td>
<td>33</td>
<td>30</td>
<td>366</td>
<td>278</td>
</tr>
<tr>
<td></td>
<td>11.19 %</td>
<td>8.80 %</td>
<td>16.22 %</td>
<td>11.04 %</td>
</tr>
<tr>
<td>after 1988</td>
<td>6</td>
<td>5</td>
<td>562</td>
<td>195</td>
</tr>
<tr>
<td></td>
<td>2.03 %</td>
<td>1.47 %</td>
<td>24.90 %</td>
<td>7.75 %</td>
</tr>
<tr>
<td>No response</td>
<td>24</td>
<td>48</td>
<td>148</td>
<td>698</td>
</tr>
<tr>
<td></td>
<td>8.14 %</td>
<td>14.08 %</td>
<td>6.56 %</td>
<td>27.73 %</td>
</tr>
<tr>
<td>N</td>
<td>295</td>
<td>341</td>
<td>2257</td>
<td>2517</td>
</tr>
<tr>
<td>Ø Year of immigration of families</td>
<td>1968</td>
<td>1967</td>
<td>1976</td>
<td>1971</td>
</tr>
</tbody>
</table>

Year of immigration of first member of the family who immigrated to Germany.

Table 9: rank and correlation coefficients - parental education

<table>
<thead>
<tr>
<th></th>
<th>Language at home</th>
<th>Time of Migration</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>German</td>
<td>Native</td>
</tr>
<tr>
<td><strong>Italians</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corr(E_{it-1}/I_{it})</td>
<td>0.3164</td>
<td>-0.1540</td>
</tr>
<tr>
<td>Spearman’s ρ</td>
<td>0.3409</td>
<td>-0.1310</td>
</tr>
<tr>
<td>Prob &gt;</td>
<td>t</td>
<td></td>
</tr>
<tr>
<td><strong>Other Immig.</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corr(E_{it-1}/I_{it})</td>
<td>0.3446</td>
<td>-0.1867</td>
</tr>
<tr>
<td>Spearman’s ρ</td>
<td>0.3539</td>
<td>-0.1684</td>
</tr>
<tr>
<td>Prob &gt;</td>
<td>t</td>
<td></td>
</tr>
</tbody>
</table>

Pearson product-moment correlation coefficient and Spearman’s rank correlation coefficient; Prob: Probability that $H_0$ ($E_{it-1}$ and $I_{it}$ are independent) is true.
Table 10: transition matrix ($P$) - Natives

<table>
<thead>
<tr>
<th>Own education (Years of schooling)</th>
<th>Parental Education (years of schooling)</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(5)</td>
<td>(9)</td>
<td>(10)</td>
<td>(12)</td>
<td>(13)</td>
<td>.</td>
</tr>
<tr>
<td>no degree (5)</td>
<td>19</td>
<td>236</td>
<td>70</td>
<td>3</td>
<td>36</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>11,31</td>
<td>1,21</td>
<td>1,12</td>
<td>1,03</td>
<td>0,87</td>
<td>1,08</td>
</tr>
<tr>
<td><em>Hauptschule</em> (9)</td>
<td>88</td>
<td>10344</td>
<td>964</td>
<td>34</td>
<td>266</td>
<td>40</td>
</tr>
<tr>
<td></td>
<td>52,38</td>
<td>53,06</td>
<td>15,48</td>
<td>11,72</td>
<td>6,42</td>
<td>21,62</td>
</tr>
<tr>
<td><em>Realschule</em> (10)</td>
<td>34</td>
<td>5973</td>
<td>2812</td>
<td>101</td>
<td>1067</td>
<td>72</td>
</tr>
<tr>
<td></td>
<td>20,24</td>
<td>30,64</td>
<td>45,14</td>
<td>34,83</td>
<td>25,75</td>
<td>38,92</td>
</tr>
<tr>
<td><em>Fachhochschulreife</em> (12)</td>
<td>10</td>
<td>878</td>
<td>419</td>
<td>30</td>
<td>305</td>
<td>13</td>
</tr>
<tr>
<td></td>
<td>5,95</td>
<td>4,5</td>
<td>6,73</td>
<td>10,34</td>
<td>7,36</td>
<td>7,03</td>
</tr>
<tr>
<td><em>Abitur</em> (13)</td>
<td>17</td>
<td>2063</td>
<td>1964</td>
<td>122</td>
<td>2470</td>
<td>58</td>
</tr>
<tr>
<td></td>
<td>10,12</td>
<td>10,58</td>
<td>31,53</td>
<td>42,07</td>
<td>59,6</td>
<td>31,35</td>
</tr>
<tr>
<td>N</td>
<td>168</td>
<td>19494</td>
<td>6229</td>
<td>290</td>
<td>4144</td>
<td>185</td>
</tr>
<tr>
<td>Percentage in row</td>
<td>0,55</td>
<td>63,89</td>
<td>20,42</td>
<td>0,95</td>
<td>13,58</td>
<td>0,61</td>
</tr>
</tbody>
</table>

Percentage above number of observations; . for omitted value
Table 11: transition matrix (P) - Italian immigrants

<table>
<thead>
<tr>
<th>Own education (Years of schooling)</th>
<th>Parental Education (years of schooling)</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(0)</td>
<td>(5)</td>
<td>(9)</td>
<td>(10)</td>
<td>(12)</td>
<td>(13)</td>
<td></td>
</tr>
<tr>
<td>no school (0)</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>no degree (5)</td>
<td>35</td>
<td>114</td>
<td>33</td>
<td>0</td>
<td>3</td>
<td>2</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>64,81</td>
<td>36,19</td>
<td>21,57</td>
<td>0</td>
<td>50</td>
<td>20</td>
<td>11,76</td>
</tr>
<tr>
<td>Hauptschule (9)</td>
<td>16</td>
<td>149</td>
<td>70</td>
<td>10</td>
<td>0</td>
<td>1</td>
<td>29</td>
</tr>
<tr>
<td></td>
<td>29,63</td>
<td>47,3</td>
<td>45,75</td>
<td>33,33</td>
<td>0</td>
<td>10</td>
<td>42,65</td>
</tr>
<tr>
<td>Realschule (10)</td>
<td>3</td>
<td>32</td>
<td>36</td>
<td>9</td>
<td>1</td>
<td>3</td>
<td>16</td>
</tr>
<tr>
<td></td>
<td>5,56</td>
<td>10,16</td>
<td>23,53</td>
<td>30</td>
<td>16,67</td>
<td>30</td>
<td>23,53</td>
</tr>
<tr>
<td>Fachhochschulreife (12)</td>
<td>0</td>
<td>8</td>
<td>5</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>0</td>
<td>2,54</td>
<td>3,27</td>
<td>3,33</td>
<td>0</td>
<td>0</td>
<td>5,88</td>
</tr>
<tr>
<td>Abitur (13)</td>
<td>0</td>
<td>12</td>
<td>9</td>
<td>10</td>
<td>2</td>
<td>4</td>
<td>11</td>
</tr>
<tr>
<td></td>
<td>0</td>
<td>3,81</td>
<td>5,88</td>
<td>33,33</td>
<td>33,33</td>
<td>40</td>
<td>16,18</td>
</tr>
<tr>
<td>N</td>
<td>54</td>
<td>315</td>
<td>153</td>
<td>30</td>
<td>6</td>
<td>10</td>
<td>68</td>
</tr>
<tr>
<td>Percentage in row</td>
<td>8,49</td>
<td>49,53</td>
<td>24,06</td>
<td>4,72</td>
<td>0,94</td>
<td>1,57</td>
<td>10,69</td>
</tr>
</tbody>
</table>

Percentage above number of observations; . for omitted value
<table>
<thead>
<tr>
<th>Own education</th>
<th>Parental Education (years of schooling)</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th>.</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Years of schooling)</td>
<td>(0)</td>
<td>(5)</td>
<td>(9)</td>
<td>(10)</td>
<td>(12)</td>
<td>(13)</td>
<td>.</td>
<td>Total</td>
</tr>
<tr>
<td>no school (0)</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>no degree (5)</td>
<td>205</td>
<td>407</td>
<td>234</td>
<td>7</td>
<td>20</td>
<td>8</td>
<td>33</td>
<td>914</td>
</tr>
<tr>
<td></td>
<td>83.67</td>
<td>32.64</td>
<td>13.59</td>
<td>1.72</td>
<td>17.09</td>
<td>1.81</td>
<td>5.56</td>
<td>19.15</td>
</tr>
<tr>
<td>Hauptschule (9)</td>
<td>29</td>
<td>537</td>
<td>837</td>
<td>92</td>
<td>22</td>
<td>37</td>
<td>242</td>
<td>1796</td>
</tr>
<tr>
<td></td>
<td>11.84</td>
<td>43.06</td>
<td>48.61</td>
<td>22.6</td>
<td>18.8</td>
<td>8.37</td>
<td>40.74</td>
<td>37.62</td>
</tr>
<tr>
<td>Realschule (10)</td>
<td>7</td>
<td>189</td>
<td>378</td>
<td>159</td>
<td>25</td>
<td>105</td>
<td>167</td>
<td>1030</td>
</tr>
<tr>
<td>Fachhochschulreife (12)</td>
<td>2</td>
<td>35</td>
<td>85</td>
<td>29</td>
<td>4</td>
<td>36</td>
<td>37</td>
<td>228</td>
</tr>
<tr>
<td></td>
<td>0.82</td>
<td>2.81</td>
<td>4.94</td>
<td>7.13</td>
<td>3.42</td>
<td>8.14</td>
<td>6.23</td>
<td>4.78</td>
</tr>
<tr>
<td>Abitur (13)</td>
<td>2</td>
<td>79</td>
<td>188</td>
<td>120</td>
<td>46</td>
<td>256</td>
<td>115</td>
<td>806</td>
</tr>
<tr>
<td></td>
<td>0.82</td>
<td>6.34</td>
<td>10.92</td>
<td>29.48</td>
<td>39.32</td>
<td>57.92</td>
<td>19.36</td>
<td>16.88</td>
</tr>
<tr>
<td>N</td>
<td>245</td>
<td>1247</td>
<td>1722</td>
<td>407</td>
<td>117</td>
<td>442</td>
<td>594</td>
<td>4774</td>
</tr>
<tr>
<td>Percentage in row</td>
<td>5.13</td>
<td>26.12</td>
<td>36.07</td>
<td>8.53</td>
<td>2.45</td>
<td>9.26</td>
<td>12.44</td>
<td>100.00</td>
</tr>
</tbody>
</table>

Percentage above number of observations; . for omitted value
Table 13: Intergenerational correlation coefficient - separated regressions for male and female

<table>
<thead>
<tr>
<th></th>
<th>Natives</th>
<th>Ita 1st g.</th>
<th>Ita 2nd g.</th>
<th>Other 1st g.</th>
<th>Other 2nd g.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Female</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Parental education</td>
<td>0.363***</td>
<td>0.067</td>
<td>0.255***</td>
<td>0.434***</td>
<td>0.337***</td>
</tr>
<tr>
<td>(in log years of schooling)</td>
<td>(0.00852)</td>
<td>(0.0361)</td>
<td>(0.0447)</td>
<td>(0.0132)</td>
<td>(0.0170)</td>
</tr>
<tr>
<td>Resident in old Bundesland (0/1)</td>
<td>-0.018**</td>
<td>0.000</td>
<td>-0.170*</td>
<td>-0.121***</td>
<td>0.037</td>
</tr>
<tr>
<td></td>
<td>(0.00249)</td>
<td>(0)</td>
<td>(0.115)</td>
<td>(0.0371)</td>
<td>(0.0205)</td>
</tr>
<tr>
<td>Birthcohort</td>
<td>0.587***</td>
<td>0.079</td>
<td>1.244*</td>
<td>-0.217</td>
<td>0.485***</td>
</tr>
<tr>
<td>(i.e. calendar year - 1900)/10</td>
<td>(0.00364)</td>
<td>(0.110)</td>
<td>(0.139)</td>
<td>(0.0381)</td>
<td>(0.0230)</td>
</tr>
<tr>
<td>Birthcohort Squared /100</td>
<td>-0.373***</td>
<td>0.358</td>
<td>-1.117</td>
<td>0.457***</td>
<td>-0.297*</td>
</tr>
<tr>
<td></td>
<td>(0.0326)</td>
<td>(1.109)</td>
<td>(1.013)</td>
<td>(0.358)</td>
<td>(0.191)</td>
</tr>
<tr>
<td>N</td>
<td>15492</td>
<td>131</td>
<td>137</td>
<td>1111</td>
<td>1029</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Male</th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Parental education</td>
<td>0.374***</td>
<td>0.087</td>
<td>0.073</td>
<td>0.452***</td>
<td>0.370***</td>
</tr>
<tr>
<td>(in log years of schooling)</td>
<td>(0.00983)</td>
<td>(0.0313)</td>
<td>(0.0498)</td>
<td>(0.0134)</td>
<td>(0.0174)</td>
</tr>
<tr>
<td>Resident in old Bundesland (0/1)</td>
<td>0.003</td>
<td>-0.089</td>
<td>-0.060</td>
<td>-0.040</td>
<td>0.037</td>
</tr>
<tr>
<td></td>
<td>(0.00287)</td>
<td>(0.299)</td>
<td>(0.124)</td>
<td>(0.0371)</td>
<td>(0.0210)</td>
</tr>
<tr>
<td>Birthcohort</td>
<td>0.640***</td>
<td>-0.151</td>
<td>-0.197</td>
<td>0.528***</td>
<td>0.442**</td>
</tr>
<tr>
<td>(i.e. calendar year - 1900)/10</td>
<td>(0.00444)</td>
<td>(0.128)</td>
<td>(0.242)</td>
<td>(0.0394)</td>
<td>(0.0257)</td>
</tr>
<tr>
<td>Birthcohort Squared /100</td>
<td>-0.598***</td>
<td>0.531</td>
<td>0.311</td>
<td>-0.327*</td>
<td>-0.450**</td>
</tr>
<tr>
<td></td>
<td>(0.0392)</td>
<td>(1.299)</td>
<td>(1.698)</td>
<td>(0.374)</td>
<td>(0.207)</td>
</tr>
<tr>
<td>N</td>
<td>14833</td>
<td>149</td>
<td>151</td>
<td>997</td>
<td>1043</td>
</tr>
</tbody>
</table>

Linear Regressions with log years of schooling as dependent variable. Standardized Beta-Coefficients. Standard error in parenthesis. Significance * 0.1 ** 0.05 *** 0.01.
Table 16: Probability of high schooling (Realschule or higher)

<table>
<thead>
<tr>
<th></th>
<th>High schooling</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>dy / dx</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Years of parental schooling</td>
<td>0,117***</td>
<td>4,76</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0,00713)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male (0/1)</td>
<td>-0,0308***</td>
<td>0,49</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0,0134)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Old Bundesland (0/1)</td>
<td>-0,149***</td>
<td>0,75</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0,0204)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Birthcohort</td>
<td>0,299***</td>
<td>5,70</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0,0303)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Birthcohort Square</td>
<td>-1,862***</td>
<td>0,36</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0,268)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Italian 1st Gen.</td>
<td>-0,266***</td>
<td>0,01</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0,164)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Italian 2nd Gen.</td>
<td>-0,00193</td>
<td>0,01</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0,105)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other imm. 1st Gen.</td>
<td>-0,108***</td>
<td>0,06</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0,0416)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other imm. 2nd Gen.</td>
<td>0,00637</td>
<td>0,05</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0,0406)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>35073</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Results are marginal effects of Probit estimation with high schooling (Realschule or higher) as dependent variable. Robust standard errors in parenthesis (Clustering using origin household-number). Statistical significance level * 0.1 ** 0.05 *** 0.01.
<table>
<thead>
<tr>
<th></th>
<th>Nicht-Migranten</th>
<th>Italiener G1</th>
<th>Italiener G2</th>
<th>Andere Mig. G1</th>
<th>Andere Mig. G2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Years of parental schooling</td>
<td>0.142*** (0.00949)</td>
<td>0.0164** (0.0805)</td>
<td>0.0530*** (0.0387)</td>
<td>0.0661*** (0.0143)</td>
<td>0.0743*** (0.0131)</td>
</tr>
<tr>
<td>Male (0/1)</td>
<td>-0.0319*** (0.0144)</td>
<td>-0.00792 (0.197)</td>
<td>-0.150*** (0.146)</td>
<td>0.00918 (0.0598)</td>
<td>-0.0326 (0.0598)</td>
</tr>
<tr>
<td>Old Bundesland (0/1)</td>
<td>-0.147*** (0.0211)</td>
<td>0.726 (0.543)</td>
<td>0.979 (0.128)</td>
<td>-0.147*** (0.109)</td>
<td>-0.0503 (0.109)</td>
</tr>
<tr>
<td>Birthcohort</td>
<td>0.303*** (0.0328)</td>
<td>0.0795 (0.652)</td>
<td>0.549* (0.879)</td>
<td>0.233*** (0.152)</td>
<td>0.139*** (0.134)</td>
</tr>
<tr>
<td>Birthcohort Square</td>
<td>-1.931*** (0.291)</td>
<td>-0.499 (6.022)</td>
<td>-3.327 (6.316)</td>
<td>-1.703*** (1.411)</td>
<td>-0.623 (1.092)</td>
</tr>
</tbody>
</table>

Results are marginal effects of Probit estimation with high schooling (Realschule or higher) as dependent variable. Robust standard errors in parenthesis (Clustering using origin household-number). Where value of Old Bundesländer is missing, it was eliminated by econometrical software because of collinearity. Statistical significance level * 0.1 ** 0.05 *** 0.01.
Table 18: Probability of high schooling (Realschule or higher) - with control for ethnic capital

<table>
<thead>
<tr>
<th></th>
<th>Italiener G1</th>
<th></th>
<th>Italiener G2</th>
<th></th>
<th>Andere Mig. G1</th>
<th></th>
<th>Andere Mig. G2</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$dy / dx$</td>
<td>$\bar{x}$</td>
<td>$dy / dx$</td>
<td>$\bar{x}$</td>
<td>$dy / dx$</td>
<td>$\bar{x}$</td>
<td>$dy / dx$</td>
</tr>
<tr>
<td>Years of parental schooling</td>
<td>0.00623</td>
<td>5.169</td>
<td>0.0207</td>
<td>6.311</td>
<td>0.0393***</td>
<td>6.749</td>
<td>0.0407***</td>
</tr>
<tr>
<td></td>
<td>(0.0789)</td>
<td></td>
<td>(0.0537)</td>
<td></td>
<td>(0.0153)</td>
<td></td>
<td>(0.0173)</td>
</tr>
<tr>
<td>Male (0/1)</td>
<td>0.0102</td>
<td>0.545</td>
<td>-0.176***</td>
<td>0.518</td>
<td>-0.0106</td>
<td>0.473</td>
<td>-0.0796**</td>
</tr>
<tr>
<td></td>
<td>(0.240)</td>
<td></td>
<td>(0.175)</td>
<td></td>
<td>(0.0701)</td>
<td></td>
<td>(0.0826)</td>
</tr>
<tr>
<td>Old Bundesland (0/1)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>-0.139***</td>
<td>0.949</td>
<td>-0.00167</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(0.170)</td>
<td></td>
<td>(0.195)</td>
</tr>
<tr>
<td>Birthcohort</td>
<td>0.0541</td>
<td>4.931</td>
<td>0.455</td>
<td>7.142</td>
<td>0.237***</td>
<td>5.429</td>
<td>0.264</td>
</tr>
<tr>
<td></td>
<td>(0.982)</td>
<td></td>
<td>(1.384)</td>
<td></td>
<td>(0.200)</td>
<td></td>
<td>(0.439)</td>
</tr>
<tr>
<td>Birthcohort Square</td>
<td>-0.299</td>
<td>0.259</td>
<td>-2.420</td>
<td>0.517</td>
<td>-1.765***</td>
<td>0.319</td>
<td>-1.454</td>
</tr>
<tr>
<td></td>
<td>(9.550)</td>
<td></td>
<td>(9.582)</td>
<td></td>
<td>(1.815)</td>
<td></td>
<td>(3.083)</td>
</tr>
<tr>
<td>Migrated before 1955 (0/1)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>-0.0327</td>
<td>0.0102</td>
<td>0.183</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(0.392)</td>
<td></td>
<td>(0.303)</td>
</tr>
<tr>
<td>Migrated 1956-1973 (0/1)</td>
<td>-0.345**</td>
<td>0.866</td>
<td>-0.585***</td>
<td>0.928</td>
<td>-0.119***</td>
<td>0.570</td>
<td>0.0504</td>
</tr>
<tr>
<td></td>
<td>(0.649)</td>
<td></td>
<td>(0.366)</td>
<td></td>
<td>(0.104)</td>
<td></td>
<td>(0.183)</td>
</tr>
<tr>
<td>Migrated 1974-1987 (0/1)</td>
<td>-0.0529</td>
<td>0.108</td>
<td>-0.339***</td>
<td>0.0495</td>
<td>-0.00559</td>
<td>0.164</td>
<td>0.111</td>
</tr>
<tr>
<td></td>
<td>(0.754)</td>
<td></td>
<td>(0.581)</td>
<td></td>
<td>(0.118)</td>
<td></td>
<td>(0.201)</td>
</tr>
<tr>
<td>Spoken language at home</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>German (0/1)</td>
<td>0.0430</td>
<td>0.0823</td>
<td>0.245**</td>
<td>0.221</td>
<td>0.134***</td>
<td>0.200</td>
<td>0.160***</td>
</tr>
<tr>
<td></td>
<td>(0.383)</td>
<td></td>
<td>(0.287)</td>
<td></td>
<td>(0.0932)</td>
<td></td>
<td>(0.0970)</td>
</tr>
<tr>
<td>Native language (0/1)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>-0.150***</td>
<td>0.0695</td>
<td>-0.128</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(0.280)</td>
<td></td>
<td>(0.692)</td>
</tr>
<tr>
<td>$N$</td>
<td>231</td>
<td>222</td>
<td>1770</td>
<td>1097</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Results are marginal effects of Probit estimation with high schooling (Realschule or higher) as dependent variable. Robust standard errors in parenthesis (Clustering using origin household-number). Where value of Old Bundesländer is missing, it was eliminated by econometrical software because of collinearity. Other variables eliminated because predicting failure perfectly (dependent variable = 0). Statistical significance level * 0.1 ** 0.05 *** 0.01.
### Table 19: gender distribution - Italian immigrants in A.I.R.E. data

<table>
<thead>
<tr>
<th></th>
<th>1st gen.</th>
<th>2nd gen.</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>male</td>
<td>6537</td>
<td>2492</td>
<td>9029</td>
</tr>
<tr>
<td></td>
<td>63.71%</td>
<td>52.85%</td>
<td>60.29%</td>
</tr>
<tr>
<td>female</td>
<td>3723</td>
<td>2223</td>
<td>5946</td>
</tr>
<tr>
<td></td>
<td>36.29%</td>
<td>47.15%</td>
<td>39.71%</td>
</tr>
<tr>
<td>N</td>
<td>10260</td>
<td>4715</td>
<td>14975</td>
</tr>
</tbody>
</table>

### Table 20: distribution by year of birth - Italian immigrants in A.I.R.E. data

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>N</td>
<td>1796</td>
<td>5130</td>
<td>8048</td>
<td>14974</td>
</tr>
<tr>
<td></td>
<td>11.99%</td>
<td>34.26%</td>
<td>53.75%</td>
<td>100%</td>
</tr>
</tbody>
</table>

### Table 21: distribution by migration time - Italian immigrants in A.I.R.E. data

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>N</td>
<td>37</td>
<td>809</td>
<td>1613</td>
<td>8805</td>
<td>3710</td>
</tr>
<tr>
<td></td>
<td>0.25%</td>
<td>5.40%</td>
<td>10.77%</td>
<td>58.80%</td>
<td>24.78%</td>
</tr>
</tbody>
</table>
Figure 2: Average years of schooling by year of migration - Italian first generation immigrants (resident in Berlin, Brandenburg, Saxony, Saxony-Anhalt and Thuringia).
Figure 3: Average years of schooling by year of migration of first immigrated family member - Italian second generation immigrants (resident in Berlin, Brandenburg, Saxony, Saxony-Anhalt and Thuringia).