

# Parental Ethnic Identity and Educational Attainment of Second-Generation Immigrants

Simone Schüller\*

DIW Berlin, IZA

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## **Abstract.**

With growing population shares of second generation immigrants in most Western European countries, the question as to how well they integrate into educational and labor market structures has received critical importance. This paper provides a first attempt to analyze the intergenerational relationship between parental ethnic identity and educational attainment of second generation youth. Results indicate that immigrant children's educational performance benefits from mothers' identification with the majority culture. With respect to fathers, it is in contrast the affiliation to the ethnic minority culture which is positively associated with the child's educational attainment.

**Keywords:** Ethnic Identity, Second Generation Immigrants, Education.

**JEL Classification Numbers:** I21, J15, J16.

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# 1 Introduction

The children of immigrants are of growing importance for the European labor markets. Whether or not these second generation immigrants will be able to successfully contribute to the host country economy depends to a large extent on the amount of human capital they accumulate in the host country educational structures. Yet, although Algan et al. (2010) find considerable intergenerational progress for second-generation immigrants in France, Germany and the United Kingdom, the general performance deficits in comparison to native age peers do remain substantial. Hence it is of crucial importance to understand the specific mechanisms accelerating or retarding immigrant children's educational progression.

In the German early tracking school system, particularly the transition to secondary school appears to constitute an important barrier to educational progression for immigrant children<sup>1</sup>. At this early stage of a child's educational career, scholarly decisions depend to a large extent on parents' views and preferences. In general, they can be considered as their children's first teachers and as responsible for human capital investments during these formative years. Both, at home and through socialization practices, parents play an important role in children's skill development. It is in this crucial period, that specific difficulties faced by immigrant parents may translate into disadvantages for the next generation. For example language problems, lack of familiarity with the schooling system or cultural differences may impact parental ability to assure children's educational success in the host country educational system. These are all aspects that relate to immigrants' process of cultural integration into the host country society.

A recent strand of economic literature on *ethnic identity*<sup>2</sup> suggests that some immigrants are more or less attached to their ethnic background culture or the mainstream culture and that there are economic and social consequences stemming from this<sup>3</sup>. This paper studies the effect of parental ethnic identity on immigrant chil-

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<sup>1</sup>Immigrant children in Germany are generally over-represented in the lowest secondary schooling track and relatively few achieve placement in the academically oriented school type (OECD, 2006; Riphahn, 2005).

<sup>2</sup>Following Phinney and Ong (2007), *ethnic identity* is defined as a part of social identity, which in turn is defined by Tajfel (1981) as "that part of an individual's self-concept which derives from [his] knowledge of [his] membership of a social group (or groups) together with the value and emotional significance attached to that membership" (p.255). This is in line with Akerlof and Kranton (2000), who define identity more general as "a person's sense of self". Unlike ethnicity, ethnic identity is thus chosen by the individual itself. *Ethnicity* on the other hand is a category assigned to an individual either by birth or by others on the basis of ethnic background or phenotype (Phinney and Ong, 2007).

<sup>3</sup>see Constant and Zimmermann (2009a) for a comprehensive overview.

dren’s educational attainment. Both, the affiliation to the German society and the perpetuation of close ties to their country of origin determine an immigrant family’s ethnic identity, which in turn can potentially affect the way parents influence their children’s educational attainment. Akerlof and Kranton (2000) theorize that an individual’s identity is substantially shaping economic decisions and Bisin and Verdier (2001) claim that parents generally try to preserve their ethnic identity by socializing their children to this specific cultural trait. Consequently, parental ethnic identity may impact the next generation’s human capital accumulation process.

This specific intergenerational relationship has not been studied so far, but is especially important for countries where formal qualifications increasingly predict labor market outcomes. Specifically analyzing the determinants of educational outcomes at relatively young age is crucial in this respect since capability formation in the early childhood plays an important role in subsequent educational development (Cunha and Heckman, 2010). This is especially true in the case of Germany in view of its early tracking system (Dustmann, 2004). Moreover, Germany as a country with a sizeable stock of second generation immigrants provides an interesting case study. Children of immigrants now constitute roughly 20% of the German population under the age of 20 (Statistisches Bundesamt, 2009). They are mainly the offspring of more recent immigrants from Eastern Europe and of earlier ”guest worker” immigrants who arrived during the 1960s and 1970s from Turkey, former Yugoslavia and southern Europe (Spain, Italy and Greece).

The main finding of this study is that both dimensions of parental ethnic identity, majority as well as minority identity, matter for immigrant children’s educational careers. Both kinds of identities appear to increase a child’s probability to be placed in a higher secondary schooling track. Moreover, the positive impact of majority identity works exclusively through mothers, while the impact of minority identity is specific to fathers.

The paper proceeds as follows: Section 2 reviews previous literature on second generation educational attainment as well as ethnic identity. Section 3 describes the underlying theoretical considerations of the analysis. Section 4 then introduces the data and provides descriptive evidence on parental ethnic identity and secondary school placement. Section 5 presents the empirical findings before section 6 summarizes the results and concludes.

## 2 Previous Literature

The international literature on the educational attainment of second generation immigrants is fairly large and growing (Borjas, 1992; Van Ours and Veenman, 2003; Nielsen et al., 2003; Djajić, 2003; Colding, 2006; Cobb-Clark and Nguyen, 2010; Belzil and Poinas, 2010; Algan et al., 2010). Concerning Germany, several studies document a persistent educational gap between native and immigrant children (Haisken-DeNew et al., 1997; Gang and Zimmermann, 2000; Riphahn, 2003, 2005; Luthra, 2010; Algan et al., 2010). This literature has mainly focused on the role of immigrant parents' lower average human capital endowment in explaining these gaps. Moreover, there is evidence that decision making processes concerning child education are considerably different for native and immigrant parents<sup>4</sup>.

There are several reasons why immigrants should exhibit different, i.e. migrant-specific pattern of investment in the next generation's education. Borjas (1992) emphasizes that the performance of the next generation does not only depend on parental skills but also on the average human capital endowment of the respective ethnic group. Gang and Zimmermann (2000) suggest the degree of "assimilation" to the host country culture to play a role. Most examined in the German context is the immigrant families' duration of stay in the host country suggesting that language and cultural barriers as well as immigrant-specific information deficits decrease with time spent in the host country. Such time aspects of parental integration processes, measured by the immigrant families' duration of stay have generally been found to improve children's educational attainment (Riphahn, 2003, 2005; Haisken-DeNew et al., 1997).

Less attention has been given to measures which reflect rather the immigrant families' emotional attachment to the German society and, on the other hand, the perpetuation of close ties to their culture of origin. Concerning the former, Luthra (2010) employs parental naturalization as a measure of immigrant families' active integration into the German society, but finds no significant relationship to child education<sup>5</sup>. With respect to the latter, Haisken-DeNew et al. (1997) find children of parents who prefer ethnic over German food or strongly consider return migration to

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<sup>4</sup>Riphahn (2005) e.g. finds the positive effects of parental schooling to be consistently smaller for second generation pupils; Gang and Zimmermann (2000) even conclude that immigrant parents' human capital plays no role in educational choices because its intergenerational importance has been depreciated through the shock of migration.

<sup>5</sup>Concerning naturalization of the child itself, the evidence of a positive naturalization-effect is unclear. While Riphahn (2005) finds the association between citizenship and second generation outcomes to disappear after controlling for socioeconomic background, Gang and Zimmermann (2000) report a significant and positive effect.

their home country to be more likely to end up in the lowest schooling levels. None of these studies have however directly looked at the potential role of immigrant parents' ethnic identity, i.e., their identification with either the host country and the minority culture, on educational investments in the second generation's schooling.

The concept of ethnic identity has only recently been put on the agenda of economics research, and attracts increasing interest <sup>6</sup>. A number of studies show that how individuals relate to the majority society and the culture of their countries of origin may affect different aspects of immigrants' economic behavior, such as labor force participation (Constant and Zimmermann, 2009b; Battu and Zenou, 2010), informal job-search and occupational prestige (Pendakur and Pendakur, 2005), income (Nekby and Rödin, 2007) or home-ownership (Constant et al., 2009). In general, there is evidence of ethnic identity affecting women and men differentially (Nekby and Rödin, 2007; Constant and Zimmermann, 2009b).

So far however, most of the research on ethnic identity focused on the economic outcomes of first generation immigrants. Only few studies in the economic literature consider specifically second generation immigrants (e.g. Nekby and Rödin, 2010; Casey and Dustmann, 2010) or investigate on the relation between ethnic identity and education (e.g. Zimmermann et al., 2008). To my knowledge, the link between ethnic identity and educational attainment of second generation immigrants has so far only been examined by one study, Nekby et al. (2009), who analyze the ethnic identity of immigrant children in Sweden in relation to their higher (post-secondary) educational attainment. Results indicate considerable gender differences. A significant association between ethnic identity and educational outcomes is found predominantly for men. Males who are affiliated with both, the majority and minority culture seem to have higher probabilities of completing a tertiary education than men who identify only with one or none of the two. For women instead, variations in ethnic identity are not significantly related to differences in higher educational attainment once secondary education outcomes are taken into account. Nekby et al. (2009) tentatively suggest that the relationship of identity and education outcomes might be established earlier in the educational careers of women in comparison to those of their male peers.

Worth mentioning is also previous literature, somehow related to studies of immigrant identity, which has focused on the effect of children's *racial identity* on school performance in the specific North-American context, describing a trade-off between

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<sup>6</sup>Special issues of the *Journal of Population Economics* (Volume 20, Issue3, 2007), *Research in Labor Economics* (Volume 29, 2009) or *The Economic Journal* (Volume 120, Issue 542) document this rising research interest.

racial identity and educational attainment (e.g. Fordham and Ogbu, 1986; Akerlof and Kranton, 2002; Patacchini and Zenou, 2006)<sup>7</sup>. Within the cross-cultural psychology literature, an integrated, or bicultural identity of immigrant children has been found to be associated with stronger school performance (Phinney et al., 2001; Olneck, 1995), especially when ethnic identity includes achievement as an aspect of this identity.

In the present paper, I endeavor to analyze the relationship between *parental* ethnic identity and educational attainment of second generation immigrants, given the importance of parental inputs and parental involvement in the child's capacity development and the importance to study the impact on scholarly decisions at early age. This relation has, to my knowledge, not yet been directly investigated in the empirical literature. Portes and Rumbaut (1990), however, in their review of the topic, point to an important aspect stating that "it is not the parents most willing to assimilate - in the sense of subtracting from their cultural background - who seem to motivate their children effectively, but those most inclined to reaffirm their cultural heritage" (p.219). This view suggests that besides potential benefits from a parental identification with the host country, children may profit from a strong parental ethnic identity.

### 3 Theoretical Background and Hypotheses

In order to clarify the theoretical background of the empirical analysis conducted below, this section provides a short overview of the main theoretical approaches to explain immigrant children's educational attainment and introduces theories related to the potential impact of parental ethnic identity.

#### 3.1 Educational Attainment of Immigrant Children

The main approaches concerning the educational attainment among second generation immigrants draw on the model of household production (Becker and Tomes, 1976; Becker, 1981) stressing the importance of parental input in the child education process. In a household production model, child quality is seen as one element of the family's utility function, which is produced by parents with inputs of market goods and services, and time. Parents care about the economic success of their children

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<sup>7</sup>This strand of literature focuses specifically on black students in the U.S., theorizing that the fear of being perceived by peers as "acting white" causes black students to diminish their academic effort.

and can influence their quality by investing on "their skills, health, learning, motivation, 'credentials', and many other characteristics" (Becker and Tomes, 1986, p. S5). These investments depend on parental preferences, income and fertility. Explaining child quality investments, Chiswick (1988) and Borjas (1992) employ versions of this model specifically in the context of immigrants' intergenerational human capital accumulation and suggest parental characteristics and ethnicity to be key determinants of educational attainment among second generation immigrants.

Chiswick (1988) suggests that a more favorable family background may be responsible for differences in returns to schooling across ethnic groups. These differences might result in some ethnic groups making larger investments in education than others. He specifically mentions parental income and education, fewer siblings and more parental time and care devoted directly to the child to be positive determinants of child quality. These factors are supposed to increase productivity of schooling, hence increase returns to schooling and consequently result in higher educational investments. Borjas (1992) on the other hand emphasizes the role of ethnicity and introduces the notion of *ethnic capital* in a child investment model. He hypothesizes that additionally to parental inputs, the next generations' skills depend on "the average quality of the ethnic environment in which parents make their investments"<sup>8</sup>. Thus, ethnicity per se might explain part of immigrant children's educational attainment.

Gang and Zimmermann (2000) go beyond the above mentioned models of educational attainment by suggesting that the degree to which immigrants parents are assimilated to the host country culture has an important impact on their basic educational preferences. The more parents accept the cultural environment of their host country and adopt common customs and attitudes of the majority society, the more they might also adjust to the immigration country's basic educational preferences. On the other hand, to the extent that immigrants stick to the cultural traits of their home countries, cultural differences may produce different educational preferences between immigrants and natives. Thus, in their model it is not only ethnicity per se that drives differences in educational preferences between immigrants and the native population, but the degree to which a parent strives for conformity with the cultural traits of the majority society.

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<sup>8</sup>Borjas (1992) introduces ethnicity as an externality in the household production function.

## 3.2 Parental Ethnic Identity and Educational Investments

I argue in the following that the concept of *ethnic identity* can contribute significantly to explain migrant-specific educational investment pattern of immigrant parents. The analysis of *both*, majority and minority identity, may provide an enhanced understanding of the intergenerational aspects of immigrant integration. Several theoretical models are consulted. First, I draw on the identity model by Akerlof and Kranton (2000) who incorporate (ethnic) identity into economic models of behavior. Second, I use the model of intergenerational cultural transmission by Bisin and Verdier (2001) in order to explain how ethnic identity not only has an impact on an individual's economic outcomes, but also translates into consequences for the next generation. And third, the model of ethnic group membership developed by Chiswick (2009) contributes to the understanding of the consequences resulting from parental investments according to ethnic identity.

The point that an individual's identity is correlated with the desire to conform to the specific group and consequently shaping economic behavior has been theoretically made by Akerlof and Kranton (2000). In their model, individuals derive utility from the category or in-group to which they belong, i.e., from how well they fit into that category and how well they conform to the group's prescribed behavior. The degree to which an immigrant parent identifies with the cultural traits of the majority group or the ethnic minority is therefore likely to influence economic decision processes, such as educational investments.

The feelings of belonging immigrants parents have towards the host society and the country of origin may have implications for the next generation. In a model of intergenerational cultural transmission, Bisin and Verdier (2001) explain this relation by stating that parents generally try to preserve their ethnic group identity and the related preference traits by socializing their children to this specific cultural trait<sup>9</sup>. They do so, because they are altruistic but in a paternalistic manner. That is, parents care about their children and want to increase their future welfare but at the same time they evaluate their children's opportunities through the filter of their own subjective evaluations (*imperfect empathy*)<sup>10</sup>. According to their ethnic identity, parents might therefore allocate their efforts to encourage the development of their children's ethnic or host country specific skills.

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<sup>9</sup>Direct socialization efforts by parents may e.g. consist in time spent with the child, language use in the family, the cultural homogeneity of the neighborhood in which the family locates, and of the school to which the child is sent (Bisin and Verdier, 2001).

<sup>10</sup>As such, the influence of parental ethnic identity on child education is therefore consistent with standard economic rationality.



The question at this point is whether parental minority and majority identity are conducive or whether they are hindering immigrant children's educational attainment. The relation between the strength of parental majority identity and human capital accumulation in the host country is generally expected to be positive. If parents have a strong affiliation to the host country, their perception of the majority structure to offer desirable opportunities for their children's economic advancement is likely to alter the incentives for investment in the child's host country specific skills which are supposed to benefit educational attainment and raise productivity in the general labor market. If in reverse the experience of hostile attitudes towards ethnic minorities and discrimination led to a low or even oppositional host country identification, also the minority youth is expected to face disadvantages in the labor market. Immigrant parents might then be discouraged to invest in their offspring's education because they perceive the majority system to provide little upward mobility<sup>11</sup>.

The relation between educational attainment and intensity of parental minority identity appears to be more complex. Parents who are deeply rooted in the culture of their country of origin might put relatively more emphasis on the development of ethnic specific skills. But whether a strong parental minority identity represents a negative externality on investments in host country specific or other general skills, and therefore constitutes a barrier to educational attainment, is theoretically not a priori clear. The model of ethnic identity developed by Chiswick (2009) illustrates the relationship between ethnic identity and the accumulation of human capital. In her model, Chiswick (2009) distinguishes two types of human capital: Ethnic-specific human capital, the skills and experiences that are useful only within the specific ethnic group, and shared human capital, the skills and experiences that raise productivity in the general labor market. The model suggests that the acquisition of ethnic-specific human capital is per se neither undesirable nor a barrier to the accumulation of shared human capital. It is rather the relationship between the ethnic minority culture relative to the culture of the larger society, the *cultural tension* between them, which determines if the two types of human capital are complementary or hinder each other. It is thus possible that for one ethnic group a high level of ethnic identity is beneficial for the acquisition of shared human capital, while for another ethnic group, high levels of ethnic skills make it more difficult to acquire general skills.

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<sup>11</sup>This argument is similar to the immigrant optimism hypothesis in sociological literature (Kao and Tienda, 1995) which states that parents who are anxious to adapt to the host country culture expect their offspring to experience upward mobility, while parents who are disillusioned, e.g. by own experience of discrimination, pass their levelled aspirations on to their children.

With respect to the intergenerational context examined in the present study, this implies that depending on the cultural tension between minority and majority culture, a strong parental ethnic identity increases either the incentive to specialize in the development of children’s ethnic skills at the expense of investments in host country specific skills or to invest in both kinds of human capital. The nature of the relation between parental ethnic identity and educational attainment concerning specific host countries and specific ethnic groups thus remains an empirical question.

Additionally, gender differences most likely play a role in the educational decision processes of immigrant families both with respect to the relative influence of fathers’ and mothers’ ethnic identity as well as the allocation of parental investment between sons and daughters. Adult women are often considered to be the “keepers of the culture” (Suarez-Orozco and Qin, 2006), designated to transmit traditional ethnic gender roles and identities to the next generation. Empirical evidence supports this presumption for immigrant groups in Germany. Casey and Dustmann (2010) study the transmission of ethnic identities across generations and find mothers to be more important with respect to the minority identity, while fathers appear to transmit the German identity more strongly. It is thus expected that mothers’ influence on child education is most intensive concerning their identification with the ethnic background culture. Furthermore, one of the most consistent finding in research on immigrant families is that parents use different socialization strategies depending on the child’s gender. Immigrant girls tend to have many more responsibilities at home than their brothers and their social contacts are often found to be significantly more restricted than they are for boys (Suarez-Orozco and Qin, 2006; Djajić, 2003). It is well possible that these culturally motivated gender roles at home may transfer to educational attainment, which is why differential associations between parental ethnic identity and demand for child education are expected for immigrant daughters and sons.

## 4 Data and Empirical Setup

### 4.1 Secondary Education in Germany

In the German school system, crucial educational decisions are taken relatively early, at the transition from primary to secondary schooling. Usually at around the age of eleven after four grades of primary education<sup>12</sup> pupils are selected into different

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<sup>12</sup>In the East German federal states of Berlin and Brandenburg, primary school generally covers six grades and in a few federal states like e.g. Hesse, Bremen or Lower-Saxony, some later tracking

secondary schools. Traditionally, secondary education in Germany has been divided into three school types: The *Hauptschule*, which is designed to prepare pupils for manual professions; intermediate *Realschule*, which prepares students for administrative and lower white-collar jobs and finally the *Gymnasium*, the most prestigious school type, which is supposed to prepare for higher education. It is only this track that allows for direct access to the academic system. All three types of schools are typically public and tuition-free.

The decision of secondary school placement is taken jointly by parents and teachers. Primary school teachers recommend which secondary track to choose, but these recommendations are not binding in most federal states<sup>13</sup>. This early tracking system runs the risk of cementing educational careers at early age, especially since different curricula for the different school types leave only little room for later up- or downward mobility<sup>14</sup>.

## 4.2 Data and Descriptive Evidence

The data I use stem from the German Socioeconomic Panel (GSOEP), a nationally representative household-based panel survey collected annually since 1984. One major advantage of the data is that the resident migrant population, moreover the traditional five immigrant nationalities (Italian, Greek, Turkish, Spanish, and formerly Yugoslavian) in Germany, is over-sampled since the initiation of the survey. The first wave included about 1500 households with a foreign born household head, which makes the dataset unique in providing repeated information on immigrants over a long period of time.

Questions about ethnic self-identification have been asked since the beginning of the panel in 1984. Foreign born individuals are asked on a five point scale about how strongly "German" they feel, and how strongly they feel connected to their country of origin. This measure captures the concept of identity as corresponding to the way individuals define themselves as members of a particular ethnic group (Tajfel, 1981; Akerlof and Kranton, 2000). Questions on ethnic identity defined in this way have been asked in 12 waves of the GSOEP (1984-1987, and every second year thereafter until 2003). Furthermore, the fact that each household head provides information about individuals in the household below the interviewing age of 16 allows me to

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schools exist, where tracking is postponed for two years.

<sup>13</sup>Exceptions are the East-German federal states of Saxony, Brandenburg and Thüringen as well as Bremen, Baden-Württemberg and Bayern in West Germany.

<sup>14</sup>Changing tracks after the initial school placement is in principle possible, but rare.

	<b>Males</b>		<b>Females</b>	
	%	<i>N</i>	%	<i>N</i>
Hauptschule	70.40	176	66.81	155
Realschule	17.60	44	22.84	53
Gymnasium	12.00	30	10.34	24
Total	100.00	250	100.00	232

*Source:* Own calculations based on SOEP.

Table 1: Secondary School Enrolment (Age 10-14) by Gender

investigate on the level of education currently attended by children below the age of 16. Father and mother of individuals can be identified by using the father- and mother-pointer provided by the dataset.

In order to estimate the role of parental ethnic identity on immigrant children’s educational attainment, I focus on the transition from primary to secondary school. The sample thus consists of individuals at age 10-14 for whom I observe the transition from primary school into Hauptschule, Realschule or Gymnasium. Although the timing of secondary school placement differs for some federal states, by the age of 14 educational placement has been selected for almost all children<sup>15</sup>.

The dependent variable, secondary school placement, is then defined as a dichotomous variable equal to one if, at age 10-14, the individual experiences a transition from primary school to Realschule or Gymnasium and zero in case of a transition to Hauptschule. It makes sense to group the two higher school levels, because this split between them and the lower level school, Hauptschule, determines, to a great extent, the possibilities of later success in the German labor market. Pupils attending non-standard schools such as Gesamtschulen (integrated schools) are excluded from the sample.

Additionally, the analysis is restricted to households residing in West Germany, because of the virtual absence of a history of migration to East Germany. Furthermore, I focus on the traditional guestworker population thus excluding ethnic German immigrants who entered the GSOEP at a later point in time by additional sampling in 1994/95. The resulting sample is a random sample that covers second generation pupils from all parts of West Germany who could be matched to both their parents and for which there is information on both parents’ socioeconomic and immigrant-specific characteristics.

A second generation immigrant child is defined as an individual who is born in

<sup>15</sup>A somewhat similar approach is taken by Spiess et al. (2003) and Haisken-DeNew et al. (1997), who examine 7th grade children at age 14 in order to indirectly determine secondary school placement.

Germany and whose mother *and* father have been born abroad<sup>16</sup> (indirect migration background). I also consider children of foreign born parents who are themselves foreign born, but arrived in Germany before the age of 7 (direct migration background). The latter are sometimes called the "1.5 generation". Their inclusion is justified by the fact that they immigrated at pre-scholar age. The final sample comprises a total of 478 immigrant children (248 males and 230 females). Table 1 presents secondary school enrolment into the three traditional schooling types by gender.

The main variables of interest are *minority identity* and *German identity* of immigrant parents. These measures of parental self-assessed ethnic identification with the ethnic minority culture, and the majority culture respectively, are based on information collected one year *prior* to the point in time when placement decisions are typically taken, i.e. when children are 9 years old. The two survey questions read: *To what extent do you view yourself as a German?* and *To what extent do you feel that you belong to the culture of the country where you or your family comes from?* Answers to these questions are coded into a five-level scale based on the answer options ranging from *not at all* (1) to *completely* (5). As mentioned above, the questions on ethnic self-identification are not available for every survey year. It needs therefore to be decided how to deal with gap years and the resulting missings in parental identity. My approach is to include observations of the respective previous year, which correspond to the parental identity when the child was 8 years old. Furthermore, I employ separate measures of home and host country identity for fathers and mothers respectively. In this way, I assume that both types of identities of fathers and mothers might each exert an independent influence on educational attainment<sup>17</sup>.

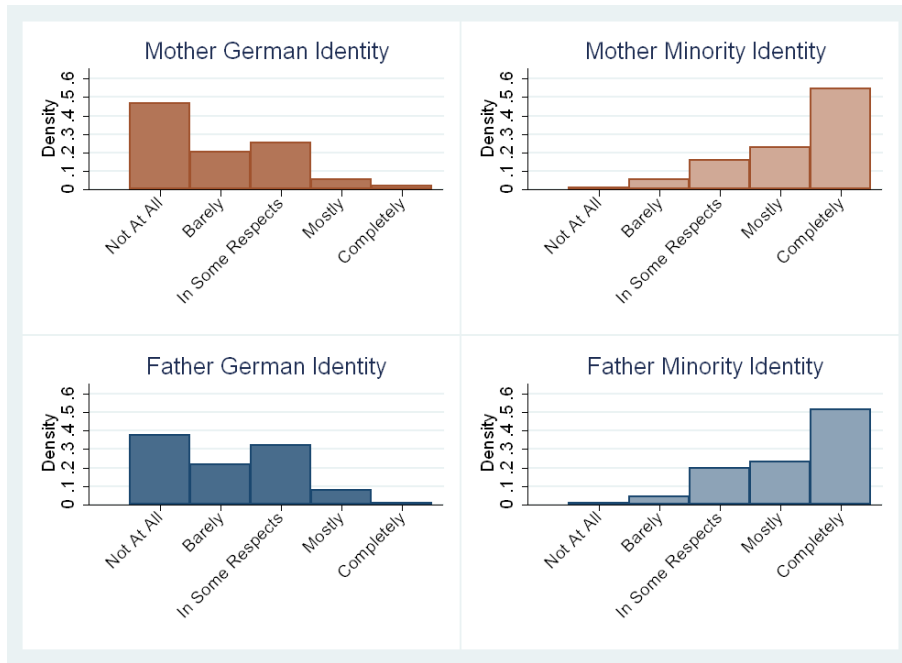
Figure 1 depicts the distribution of fathers' and mothers' ethnic identities for all individuals in the sample. The represented information indicates that the majority of both fathers and mothers does not or only weakly identify with the German culture, but very strongly with their culture of origin. Only about 8 percent of fathers, and mothers respectively, state to feel mostly or completely German, and only around 5 percent feel not at all or barely belonging to their culture of origin. On average, fathers appear to have a slightly stronger German identity than mothers.

Figure 2 shows the sample probabilities of a child being tracked into intermediate

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<sup>16</sup>Note that children with mixed foreign backgrounds, for example one native and one immigrant parent, as well as single parents are thus excluded from the sample.

<sup>17</sup>Phinney et al. (2001) states that in analogy with the concept of two-dimensional acculturation by Berry (1997) ethnic identity can be seen as "two dimensions of group identity that vary independently; that is, each identity can be either secure and strong or underdeveloped and weak."



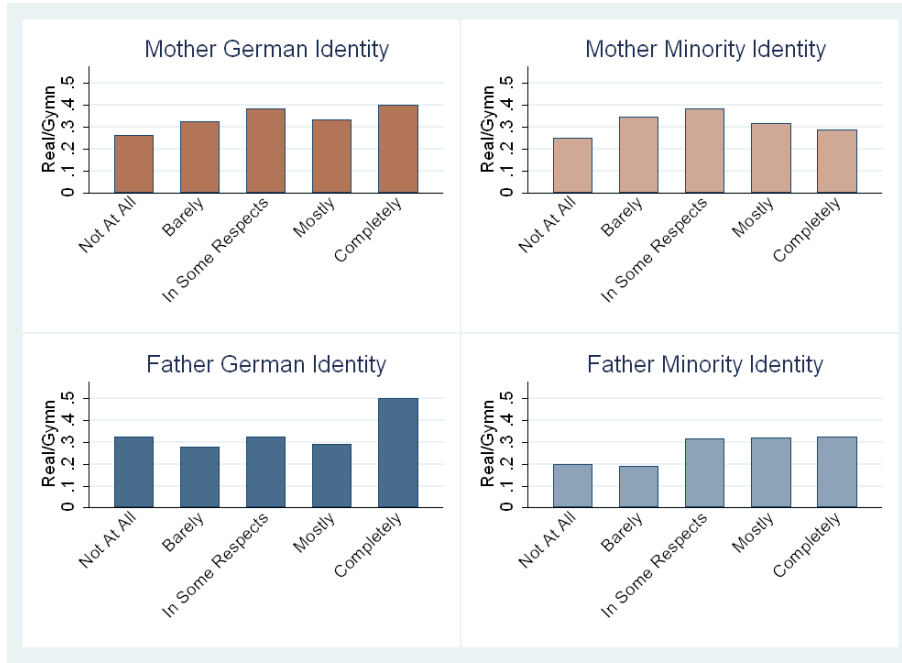
Source: Own calculations based on SOEP

Figure 1: Distribution of Parental Majority and Minority Identity

(Realschule) or upper secondary school (Gymnasium) distinguished by the strength of parental German and minority identity. It is roughly indicated that children whose mothers state a relatively higher affiliation to the German culture and those children whose fathers identify relatively strongly with their home culture are more likely to be enrolled in one of the higher school levels. With respect to mothers' minority identity and fathers' German identity, the picture is less apparent. However, highest proportions of enrolment in Realschule or Gymnasium appear for children with mothers who feel "in some respects" affiliated to their home culture and respectively for children whose fathers exert a very strong German identity.

The majority of the empirical research on children's school success has shown that school outcomes are explained by the child's personal characteristics, parental socioeconomic background characteristics and other factors related to the child's environment. Thus, I control for the most common determinants of school performance in order to examine the influence of parental identity. The main determinant of educational attainment, parental socioeconomic background, is represented by three indicators: father's and mother's years of education, their labor force status<sup>18</sup> and

<sup>18</sup>Although based on previous empirical literature (e.g. Constant and Zimmermann, 2009b) one might expect parent's ethnic identification to be associated with their labor force participation, I still choose to include these variables since originally, I am interested in the direct effect of parental ethnic identity on the child's educational attainment. Therefore, I prefer to control for potential indirect effects running through parental employment probability.



Source: Own calculations based on SOEP

Figure 2: Enrolment Probabilities in Intermediate/Upper Secondary School Distinguished by Parental Majority and Minority Identity

disposable household income<sup>19</sup> per household member. Additionally, I control for the number of children in the household as families must divide financial resources as well as time and attention. These variables together control for the influence of a *favorable family background* (Chiswick, 1988).

In order to roughly control for ethnicity, or *ethnic fixed effects* (Borjas, 1992), I include the children's ethnic group, a variable constructed using both the parents' and the child's information on country of origin and nationality. Ethnic groups comprise the major guestworker countries (Former) Yugoslavia, Turkey, Italy, Greece and Spain. In addition, the parents' years of residence in Germany is included, thus controlling for the pure *time aspects* of the parental cultural integration process. Federal state dummies and a dummy for urban or rural place of residence control for compositional and regional differences. Calendar effects are controlled for by the year of observation. Summary statistics of the main variables used in the present analysis are presented in Table 2.

<sup>19</sup>Adjusted monthly net household income deflated by 2008 CPI.

Enrolment in Intermediate/Upper Secondary School (Age 10-14)	0.3133	(0.4643)
<b>Parental Ethnic Identity (Age 8/9):</b>		
Mother German Identity	1.9647	(1.0639)
Mother Minority Identity	4.2510	(0.9679)
Father German Identity	2.1245	(1.0363)
Father Minority Identity	4.1992	(0.9703)
<b>Ethnic Background:</b>		
Turkey	0.5456	(0.4984)
Former Yugoslavia	0.1722	(0.3779)
Greece	0.0809	(0.2730)
Italy	0.1411	(0.3485)
Spain	0.0602	(0.2380)
<b>Household Characteristics:</b>		
Household Income/1000	2.7960	(1.5283)
Nr. of Children in Household	2.4647	(1.0376)
Rural	0.3423	(0.4750)
Town	0.2822	(0.4505)
City	0.3755	(0.4848)
Years since Migration Household	20.8776	(5.3702)
<b>Parental Characteristics:</b>		
Mother Yrs of Education	8.7666	(1.5900)
Father Yrs of Education	9.4066	(1.6006)
Mother Working	0.4087	(0.4921)
Father Working	0.8942	(0.3079)
<b>Survey Year:</b>		
1986-1990	0.4025	(0.4909)
1991-1995	0.2884	(0.4535)
1996-2000	0.1867	(0.3901)
2001-2007	0.1224	(0.3281)
Number of Observations	482	

*Source:* Own calculations based on SOEP. Standard deviation in parentheses.

Table 2: Selected Sample Means of Main Individual, Household and Parental Variables



### 4.3 Empirical Setup

The econometric framework used to assess immigrant children’s educational attainment is given by the underlying latent variable model

$$y_i^* = \beta_0 + \beta_1' I_i + \beta_2' X_i + \epsilon_i, \quad \text{where } X_i = \{F_i, T_i, C_{ij}, O_i\}, \quad (1)$$

where  $y_i^*$  denotes child  $i$ ’s level of human capital; and  $I_i$  represents parental ethnic identity measures.  $X_i$  comprises control variables for child  $i$ ’s family background ( $F_i$ ), the family’s years since migration ( $T_i$ ), a dummy variable  $C_{ij}$  indicating if child  $i$  is a member of ethnic group  $j$  and other controls ( $O_i$ ) such as region of residence or survey year.

Since human capital is not directly observable, equation (1) cannot be estimated straightaway. The earliest outcome observable is a child’s enrolment in one of the traditional three schooling tracks after primary school. Assuming that a child is placed in one of the two highest tracks if and only if its human capital is above some threshold (without loss of generality set to 0) and also assuming that the error term  $\epsilon_i$  in equation (1) is following the standard normal distribution, the equation (1) can be rewritten as

$$P(y_i = 1) = P(y_i^* > 0) = \Phi(\beta_0 + \beta_1' I_i + \beta_2' X_i), \quad (2)$$

where  $\Phi(\cdot)$  is the standard normal CDF.

At this point it is important to stress that the resulting estimates are to be interpreted with caution. There might be a number of other characteristics and attributes correlated with parent’s ethnic identity that may be driving their pre-school educational investments and ability to navigate the German school system. Not all of these characteristics are observable and can be controlled for in the estimation. In absence of an exogenous instrument correlated with identity, but not with the regression disturbance, results should thus be interpreted tentatively.

Another problem might be that results are driven by a simultaneity bias in case children’s educational performance has an impact on their parents’ feelings of belonging.<sup>20</sup> To some extent, I confront this problem by employing measures of parental identity observed before tracking into secondary schooling takes place. It is however

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<sup>20</sup>Following the theoretical considerations presented in Section 3, one would expect the bias to be positive w.r.t. parents’ majority identity if scholarly success of the child increases parental optimism regarding their offspring’s career expectations within the majority structure. The bias w.r.t. parental minority identity would again be ambiguous and depending on the relation between majority and minority culture.

	M G ID	M H ID	F G ID	F H ID
Mother German ID	1			
Mother Home ID	-0.72	1		
Father German ID	0.54	-0.48	1	
Father Home ID	-0.40	0.55	-0.66	1

*Source:* Own calculations based on SOEP.

Table 3: Correlation Matrix between German and Minority Identity of Fathers and Mothers

possible that already educational performance during primary school has been affecting parental identity when the child is 8 or 9 years old. In a future version of this paper, I endeavor to investigate further on this issue.

Third, as shown in Table 3, there is evidence of a relatively high, but not perfect, negative correlation between majority and minority identity and a positive correlation between fathers' and mothers' identity measures. In order to encounter the concern that estimates, and in particular their standard errors, might be affected by these intercorrelations, I follow the approach suggested by Greene (2003, p.58) and estimate the model first with the full set of identity variables and subsequently models which include each variable separately. While the estimates of the first model are potentially adversely affected by multicollinearity, estimates in the latter models might be biased due to an omitted variable problem. Comparing estimates and standard errors of both kind of specifications, however, it should be possible to gain some indication on which identity variable is more or less important in the model.

## 5 Discussion of Results

This section explores the estimates of the relationship between immigrant parents' ethnic identities and educational attainment of their offspring. Table 4 shows the average marginal effects from binary probit estimations of a child's enrolment probability in intermediate or upper secondary school at age 10-14. Reported results are based on estimation of the most extensive model specification including controls for country of origin, the household's years of residence in Germany, parental education and labor market status, a number of demographic variables, and common time effects. In order to account for correlations between children that live in the same household, standard errors are adjusted for clustering by household in each model.

As described above, Model 1 is estimated for the full set of parental identity

	(1)	(2)	(3)	(4)	(5)	(6)
Mother German Identity (Age 8/9)	0.074** (0.03)	0.053** (0.02)				
Mother Minority Identity (Age 8/9)	-0.037 (0.03)		-0.035 (0.02)			
Father German Identity (Age 8/9)	-0.033 (0.03)			-0.021 (0.02)		
Father Minority Identity (Age 8/9)	0.071** (0.03)				0.039* (0.02)	
Former Yugoslavia	-0.040 (0.06)	-0.010 (0.06)	0.014 (0.06)	0.028 (0.06)	0.024 (0.06)	0.026 (0.06)
Greece	0.152** (0.07)	0.187*** (0.07)	0.208*** (0.07)	0.206*** (0.07)	0.197*** (0.07)	0.208*** (0.07)
Italy	-0.093 (0.07)	-0.057 (0.07)	-0.042 (0.07)	-0.037 (0.07)	-0.038 (0.07)	-0.033 (0.07)
Spain	-0.055 (0.10)	-0.018 (0.10)	0.002 (0.09)	0.018 (0.09)	0.001 (0.09)	0.012 (0.09)
Yrs since Migration HH	0.005 (0.00)	0.002 (0.00)	0.002 (0.00)	0.002 (0.01)	0.003 (0.01)	0.002 (0.01)
Male	-0.066 (0.04)	-0.057 (0.04)	-0.049 (0.04)	-0.044 (0.04)	-0.044 (0.04)	-0.044 (0.04)
Mother Yrs of Education	-0.007 (0.01)	-0.003 (0.01)	0.001 (0.01)	0.006 (0.01)	0.005 (0.01)	0.004 (0.01)
Father Yrs of Education	0.024* (0.01)	0.022* (0.01)	0.020 (0.01)	0.021 (0.01)	0.021 (0.01)	0.020 (0.01)
Mother Working	-0.014 (0.05)	-0.005 (0.05)	-0.000 (0.05)	0.005 (0.05)	0.004 (0.05)	0.005 (0.05)
Father Working	0.018 (0.06)	-0.024 (0.06)	-0.028 (0.06)	-0.030 (0.06)	-0.024 (0.06)	-0.035 (0.06)
Household Income/1000	-0.017 (0.02)	-0.018 (0.03)	-0.021 (0.03)	-0.020 (0.03)	-0.018 (0.03)	-0.020 (0.03)
Nr. Children in HH	-0.028 (0.02)	-0.032 (0.02)	-0.031 (0.03)	-0.029 (0.03)	-0.029 (0.02)	-0.031 (0.03)
Town	0.077 (0.06)	0.067 (0.06)	0.065 (0.06)	0.059 (0.06)	0.061 (0.06)	0.060 (0.06)
City	0.066 (0.06)	0.043 (0.06)	0.049 (0.06)	0.058 (0.06)	0.063 (0.06)	0.053 (0.06)
Survey Yr 1991-1995	-0.063 (0.06)	-0.034 (0.06)	-0.024 (0.06)	-0.025 (0.06)	-0.031 (0.06)	-0.022 (0.06)
Survey Yr 1996-2000	-0.070 (0.07)	-0.057 (0.07)	-0.048 (0.07)	-0.031 (0.07)	-0.028 (0.07)	-0.033 (0.07)
Survey Yr 2001-2005	0.048 (0.07)	0.039 (0.08)	0.058 (0.08)	0.083 (0.08)	0.086 (0.08)	0.073 (0.08)
<i>N</i>	481	481	481	481	481	481
Pseudo <i>R</i> <sup>2</sup>	0.133	0.112	0.105	0.103	0.106	0.101
<i>BIC</i>	696.7	690.9	694.8	696.3	694.2	691.2

Source: Own calculations based on SOEP. \*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ . Clustered standard errors by mother id. Additional controls for Federal States in all models. Omitted categories: Country of origin Turkey, female living in rural area, survey year 1986-90.

Table 4: Estimation Results: Average Marginal Effects for Probit on "Enrolment in Intermediate/Upper Secondary School (Age 10-14)"

variables and subsequently Models 2-5 are estimated including each of the identity measures separately. Results in column one indicate that mainly mother's majority and father's minority identity play a role for immigrant children's transition probabilities into the higher secondary schooling tracks. Children whose mothers have *ceteris paribus* a relatively stronger affiliation to the host country culture, are more likely to be tracked into one of the two highest secondary schooling types. Mothers' affiliation to the ethnic background culture instead does not seem to significantly matter for the child's transition probabilities. This general pattern of a *positive* relation between mothers' German identity and the child's educational attainment, and at the same time no significant relationship with respect to mothers' minority identity, appears to be robust also in Models 2 and 3, where average marginal effects are reported for models including each identity variable for mothers separately without controlling for other parental identity variables, which are suspected to potentially introduce multicollinearity in Model 1.

With respect to fathers, results in Table 4 indicate a substantially different relationship between ethnic identification and educational attainment than what is found for mothers. First of all, it is not the fathers' German identity that appears to matter, but rather the strength of affiliation to the respective ethnic minority group. Children of fathers with a relatively stronger minority identification, experience an increase in the probability of being tracked into one of the higher secondary schooling types. This *positive* association of fathers' minority identity with child educational attainment is found to be significant both in models controlling for all parental identity variables (Model 1) and also without other parental identity controls (Model 4 and 5).

Notable results include that children with a Greek migration background are more likely to end up in one of the higher secondary schooling types than children of any other ethnic background reviewed here, even controlling for family background and other control variables<sup>21</sup>. Children with one of the other guestworker backgrounds, however, do not differ significantly in their enrolment behavior from children of Turkish origin, the reference group. Furthermore, the household's years since migration do not seem to be significantly correlated with educational attainment. Thus, in contrast to parental ethnic identity, ethnicity per se and pure time aspects of parental integration do not appear to be associated with secondary school placement. Rather fathers' education seems to play a significant role. Household income, parental labor

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<sup>21</sup>Literature on the migrant-native gap in education outcomes in Germany attributes the Greek academic success to the availability of alternative Greek-language schools in Germany (e.g. Alba et al., 1994)

	(1)	(2)	(3)	(4)
Mother German Identity (Age 8/9)	0.070** (0.03)	0.064** (0.03)	0.070** (0.03)	0.074** (0.03)
Mother Minority Identity (Age 8/9)	-0.030 (0.03)	-0.034 (0.03)	-0.030 (0.03)	-0.037 (0.03)
Father German Identity (Age 8/9)	-0.018 (0.03)	-0.019 (0.03)	-0.026 (0.03)	-0.033 (0.03)
Father Minority Identity (Age 8/9)	0.072** (0.03)	0.071** (0.03)	0.069** (0.03)	0.071** (0.03)
Controlling for:				
Gender, Federal State & Survey Yr	<i>yes</i>	<i>yes</i>	<i>yes</i>	<i>yes</i>
Household Characteristics	<i>no</i>	<i>yes</i>	<i>yes</i>	<i>yes</i>
Parental Characteristics	<i>no</i>	<i>no</i>	<i>yes</i>	<i>yes</i>
Yrs since Migration & Country of Origin	<i>no</i>	<i>no</i>	<i>no</i>	<i>yes</i>
<i>N</i>	481	481	481	481
Pseudo $R^2$	0.098	0.109	0.115	0.133
<i>BIC</i>	637.5	655.6	676.3	696.7

*Source:* Own calculations based on SOEP. \*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ .  
Clustered standard errors by mother id.

Table 5: Estimation results: Average Marginal Effects for Probit on "Enrollment in Intermediate/Upper Secondary School (Age 10-14)"

market success and other controls are all insignificantly correlated with secondary school enrolment. Table 5 displays results of various model specifications stepwise introducing sets of control variables. The results described above hold for the various specifications.

## 5.1 Extensions and Robustness Checks

Associations between parental ethnic identity and educational attainment may vary across different ethnic groups stemming from diverse countries of origin due to heterogeneity in cultural background, especially in view of the potential importance of the cultural distance or tension between majority and specific ethnic culture (Chiswick, 2009). Although the main estimations in Table 4 control for country of origin, separate estimations by ethnic group might then be a favorable option. However, small sample sizes within most ethnic groups do not allow for this option, except with respect to the group of children with a Turkish migration background, which represent the numerically largest group in the sample. Table 6 displays estimation results of the basic models including the full set of controls for the sub-sample of children with a Turkish family background. Results are similar to those reported in Table 4.

In order to further investigate on the independent effects of parental majority and minority identity variables, I employ models where indicator variables of a below-average majority identity are interacted with indicator variables of a below-average

	(1)	(2)	(3)	(4)	(5)
Mother German Identity (Age 8/9)	0.077* (0.04)	0.053* (0.03)			
Mother Minority Identity (Age 8/9)	-0.036 (0.04)		0.011 (0.03)		
Father German Identity (Age 8/9)	-0.019 (0.04)			-0.018 (0.03)	
Father Minority Identity (Age 8/9)	0.081** (0.04)				0.046* (0.03)
<i>N</i>	263	263	213	263	263
Pseudo <i>R</i> <sup>2</sup>	0.166	0.142	0.109	0.134	0.142
<i>BIC</i>	410.3	401.2	340.8	403.7	401.4

*Source:* Own calculations based on SOEP. \*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ .

Clustered standard errors by mother id. Additional controls for the household's years since migration, gender, parental and household characteristics, survey year, and federal states in all models.

Table 6: Estimation results: Average Marginal Effects for Probit on "Enrollment in Intermediate/Upper Secondary School (Age 10-14)", Turkish Sub-Sample

minority identity for fathers, and mothers respectively<sup>22</sup>. Resulting interaction- and level-terms correspond to a categorization of parents according to the acculturation framework developed by Berry (1997) into the four mutually exclusive categories *integrated*, *assimilated*, *separated* and *marginalized*<sup>23</sup>. Model 1 in Table 7 shows the resulting average marginal effects, focusing on the interaction terms. Relative to pupils whose mothers are integrated, i.e. have an above-average affiliation to both, the German and the specific ethnic background culture, solely children whose mothers are separated are found to have a significantly lower probability to be enrolled in one of the two higher secondary schooling tracks. Since separated mothers are those with a below average German, but an above average minority identity, this result confirms the results of the basic estimations in Table 4: Mothers' German identity plays an important role while no significant differences are found for mothers with varying strength of minority identity. In the same way, basic results can be confirmed with respect to fathers: Fathers' minority identity appears to be significantly important irrespective of the strength of fathers' German identity<sup>24</sup>.

Since the ethnic self-identification of immigrant parents is a quite abstract and

<sup>22</sup>Indicators of strength of below- or above average parental identity are constructed according to sample means displayed in Table 2

<sup>23</sup>This framework has already been employed in the economic analysis of ethnic self-identification e.g. by Zimmermann et al. (2007) or Nekby et al. (2009). However, I take a slightly different approach by using interaction effects and by choosing cut-off points between strong and weak identification according to sample means.

<sup>24</sup>Only children with assimilated fathers, i.e. fathers with a relatively strong German identity, but a below-average affiliation with the minority group, have significantly lower transition probabilities in comparison with the reference group of children with integrated fathers.

	(1)	(2)	(3)
Mother Assimilated	0.086 (0.07)	0.006 (0.06)	
Mother Separated	-0.110* (0.06)	-0.092 (0.06)	
Mother Marginalized	0.034 (0.128)	0.044 (0.126)	
Father Assimilated	-0.167*** (0.06)		-0.103* (0.06)
Father Separated	-0.010 (0.06)		-0.050 (0.06)
Father Marginalized	0.121 (0.114)		0.144 (0.114)
<i>N</i>	481	481	481
Pseudo $R^2$	0.127	0.109	0.108
<i>BIC</i>	700.3	698.5	699.2

*Source:* Own calculations based on SOEP. \*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ . Clustered standard errors by mother id. Omitted Categories: Mother and father integrated. Controls for household years since migration, country of origin, gender, household and parental characteristics, survey year (4 categories) and federal states in all models. Parental acculturation categories represent interactions of indicator variables for below-average majority and minority identity for fathers, and mothers respectively.

Table 7: Estimation results: Average Marginal Effects for Probit on "Enrollment in Intermediate/Upper Secondary School (Age 10-14)", Parental Acculturation Identity

subjective measure, the exact models presented in Table 4 are re-estimated for a measure of parental ethnic *behavior* instead of ethnic identity. Ethnicity and ethnic identity are conceptually distinct from the associated ethnic behavior. Although e.g. speaking the language and eating the food is typically correlated with ethnic identity, "ethnic identity is an internal structure that can exist without behavior" (Phinney and Ong, 2007, p.272). Table 8 shows the average marginal effects from estimations of probit models controlling for immigrant parents' newspaper use, i.e. the language in which they typically read their newspaper. This measure comprises immigrant parents' language proficiency as well as their general interest in societal and political ongoing in the majority society or in the country of origin respectively. As for the ethnic identity measure, I use answers to survey questions asked when the child was 8 or 9 years old. With respect to mothers, results in Table 8 tentatively confirm the main results in Table 7. The language in which fathers read their newspaper, however, does not seem to matter significantly for their childrens' educational attainment. This might point towards different channels through which mother's and father's ethnic affiliation influences the child's educational performance. With respect to mothers the association may be predominantly established through active management of the child's educational career, e.g. through monitoring of homework or contact with the school and the beneficial effect of host language proficiency

	(1)	(2)	(3)
<b>Mother Newspaper (Age 8/9)</b>			
Mostly German	0.055 (0.08)	0.049 (0.07)	
Mostly Country of Origin	-0.109* (0.06)	-0.118** (0.06)	
No Newspaper	-0.066 (0.07)	-0.097 (0.06)	
<b>Father Newspaper (Age 8/9)</b>			
Mostly German	0.018 (0.07)		0.056 (0.06)
Mostly Country of Origin	-0.024 (0.06)		-0.051 (0.06)
No Newspaper	-0.222* (0.13)		-0.199 (0.13)
<i>N</i>	381	381	381
Pseudo $R^2$	0.168	0.160	0.155
<i>BIC</i>	578.1	563.9	566.2

*Source:* Own calculations based on SOEP. \*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ .  
Clustered standard errors by mother id. Omitted categories: Both equally.  
Controls for household years since migration, country of origin, gender,  
household and parental characteristics, survey year (4 categories) and federal  
state in all models

Table 8: Estimation results: Average Marginal Effects for Probit on "Enrollment in Intermediate/Upper Secondary School (Age 10-14)"

and general knowledge of the host country educational system on the efficiency of such strategies. With respect to fathers, other mechanisms, e.g. related to fathers' patriarchal enforcement of traditional family values and rules, might serve as a stabilizing element that contributes to a better academic performance of the child. These mechanisms might not necessarily be encompassed in the specific measure of ethnic behavior analyzed. However, these are rather speculative interpretations and a further investigation of these mechanisms is needed.

## 6 Summary and Conclusion

The purpose of this analysis has been to investigate the possible association between immigrant parents' ethnic identity and educational attainment of their children in the host country schooling system. A systematic relationship between parental ethnic identity and child education is indeed found. The main results presented in this study underline the importance of modelling ethnic identity in a two-dimensional framework and to consider fathers' and mothers' identity separately. With respect to educational attainment, there is no evidence for a linear relationship where the effects of a strong parental minority identity are solely the flipside of a weak parental majority identity. Results rather support the view that both parental identities influence the child's educational attainment independently. Furthermore, it is found



that parents' affiliation to both, the majority *and* the minority group are potentially *beneficial* for immigrant children's educational careers.

The main finding that children's probability of being tracked into one of the higher secondary schooling types increases with strength of mothers self-identification with the host country and fathers affiliation to the minority group suggests different roles of fathers and mothers with respect to their children's scholarly career. It is well possible that fathers and mothers influence their children's educational attainment through different channels. Mothers are generally more actively managing their child's school career in ways that can have a direct influence on educational achievement (Baker and Stevenson, 1986). It is for example mostly mothers that are responsible for monitoring homework, being informed about their child's school performance and keep in contact with teachers. Consequently, a higher identification with the German host country that potentially comes with better German language proficiency and knowledge of the German school system, might increase the efficiency of immigrant mothers' strategies to actively help their child through school.

The role of fathers' ethnic identity on the other hand, might rather be indirect. In addition to being a role model, in particular for sons, fathers might influence a child's educational attainment through family rules. Especially in patriarchally organized cultures, it is the father who sets the family rules and enforces them. Reviewing the relevant literature, Djajić (2003) further suggests that a "slow pace of assimilation in terms of family values and traditions may help strengthen the process of human capital accumulation of immigrant children". As has been found in previous literature described above, in particular immigrant daughters are likely to be affected by strict dating rules and responsibilities within the family, which in turn might indirectly benefit their educational performance. More generally, a strong sense of belonging to an ethnic minority group transmitted by fathers' might help to increase children's self-esteem and shelter against experiences of discrimination in the school environment.

The main findings of this study are however to some extent contradictory to what Casey and Dustmann (2010) find with respect to the transmission of ethnic identities across generations. In line with the hypothesis that adult women are "keepers of culture", their results indicate that mothers transmit the minority identity more strongly and that fathers play a more important role with respect to the transmission of the German identity. In contrast, findings of the present study suggest that with respect to the relation between parental identity and a child's educational attainment it is exactly the other way round. Mother's German identity as well as father's

minority identity is more important for educational performance.

The results generally point at the supposition that for immigrant children, growing up in integrated, rather than separated or assimilated families might be conducive for educational success. Clearly, the relationship between parental ethnic identity and educational attainment for second generation immigrants is a complex issue and it is difficult to draw clear conclusions. The present analysis, however, could sort out some of its thicker threads. A future version of this paper will include an examination of gender differences with respect to immigrant sons and daughters.

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