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ABSTRACT

Naturalization Proclivities, Ethnicity and Integration^{*}

This paper studies the determinants of naturalization among Turkish and ex-Yugoslav immigrants in Germany differentiating between actual and planned citizenship. Using the German Socio-Economic Panel, we measure the impact that integration and ethnicity indicators exert on the probability to naturalize beyond the standard individual and human capital characteristics. A robust finding is that German citizenship is very valuable to female immigrants and the generally better educated, but not to those educated in Germany. We find that the degree of integration in German society has a differential effect on citizenship acquisition. While a longer residence in Germany has a negative influence on actual or future naturalization, arriving at a younger age and having close German friends are strong indicators of a positive proclivity to citizenship acquisition. Likewise, ethnic origins and religion also influence these decisions. Muslim immigrants in Germany are more willing to become German citizens than non-Muslim immigrants, but there are also fewer German citizens among Muslims than among non-Muslims.

JEL Classification: F22, J15, J61

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I. INTRODUCTION

Immigrant citizenship acquisition is a much discussed, debated, and still a heated topic in German immigration politics. After decades of doing nothing about an immigration policy and refusing to admit that Germany is an immigrant country, the German government of 2001, taking a pioneering position, introduced the Immigration Act (*Zuwanderungsgesetz*) a reduced and compromised version of which came into effect on January 1, 2005. The citizenship laws in this Act allow foreigners to obtain citizenship in a much more proactive stance towards integration. Among other things, immigrants should take 650 hours of language instruction, demonstrate knowledge of the German constitution and take an oath of allegiance to the Basic Law of the Federal Republic of Germany. Since 2000, some immigrants like the Turks, also need to sign a document renouncing their previous citizenship and promising that they will not acquire a second citizenship after they take the German one.¹

Currently, immigrants can apply for German citizenship after eight years of residency in Germany, with numerous exceptions allowing the naturalization process to begin as early as 3 years after arrival if one is married to a German citizen. Bloodlines (*ius sanguinis a patre et a matre*) are no longer the only route to citizenship; the law of soil (*ius soli*) is also implemented in Germany for the children. Additional eligibility requirements for immigrant citizenship ascension are: assurance and demonstration of one's own subsistence and the subsistence of his or her dependents without recourse to benefits, possession of adequate knowledge of German, and knowledge of the legal system, the society and living conditions in Germany, and a criminal free record.

¹ The first reform to the German nationality law, dated in 1913, came into effect on January 1, 2000. Dual citizenship is allowed under certain circumstances, to all EU nationals, and to the children of binational marriages.

Before the new 2000 law the long time frame of up to 15 years of residence (*ius domicili*) and the stiff monetary fee (up to 5,000 DM at times) did not give immigrants the “right” to citizenship, which was up to the discretion of German officials. Although since the 1990s the laws to acquire citizenship are less stringent, many immigrants choose not to become German citizens.

Immigrant citizenship ascension rose after the new citizenship law was enacted. In 2000 alone 186,688 immigrants acquired German citizenship, while in contrast during the 1980s only 133,000 foreigners were naturalized over the entire decade. It should be noted that in 2000 naturalizations peaked after a four decade rise. After 2000 naturalizations declined and in 2005, 117,241 immigrants received German citizenship.² German officials announced in July 2007 that the number of naturalized immigrants had risen to 124,832 in 2006, an increase of 6.5 percent over the previous year (Deutsche Welle, 2007).

Despite thousands of cases of naturalization of immigrants in Germany, there are many foreigners residing in Germany who choose not to naturalize, or who have postponed their naturalization. To visualize the number of people who do not acquire German citizenship in spite of being qualified for it, we calculate some rough estimates of the number of people who are qualified to receive German citizenship in the years 2004 and 2005, and compare these numbers to the actual naturalization

² Statistics used in this paragraph do not include the cases of naturalization by ethnic Germans, who started returning to Germany from the Soviet bloc in early 1990s. Unlike all other immigrants, ethnic Germans are guaranteed the right to German citizenship upon their arrival to Germany. When the German citizenship acquisition cases are taken into account, the naturalization statistics increases by 2 to 3 times. No naturalization statistics are available for returning ethnic Germans after 2000. Because different laws apply to ethnic Germans and all other immigrants arriving to Germany, the citizenship acquisition behavior may differ between these two migrating groups. For the purposes of this study, we limit our discussion only to citizen acquisition process by ethnically non-German immigrants.

statistics in Table 1. After the minimum requirement for length of residency, the time that it takes to complete the naturalization process, and the yearly outflow of immigrants are taken into consideration, the predicted number of immigrants who arrived to Germany in 1997 and were eligible for German citizenship in 2005 is 391,460. This is three and a half times higher than the actual number of immigrants (117,241) who naturalized in Germany during that year. This 30 percent ascension rate is in sharp contrast to other European countries as well as the Canadian and US experience.³ In fact, the actual difference between the number of people eligible to acquire German citizenship by 2005 and the number of immigrants who actually have acquired German citizenship during that year might even be larger, as there are many other immigrants who have nominally qualified for German citizenship prior to 2005, but who have apparently postponed their naturalization.

The crux of the matter is why some eligible legal immigrants do not naturalize, why some do, and are there any internal or external barriers to this process? This paper studies the determinants of naturalization among immigrants who do acquire German citizenship, immigrants who have not obtained citizenship but are willing to receive it in the future, and immigrants who do not want to acquire German citizenship. In particular, using the 2005 wave of the German Socio-Economic Panel (SOEP), we measure the impact that integration and ethnicity indicators exert on the probability to naturalize beyond the standard individual and human capital characteristics. We conjecture that the degree of integration in German society can have a differential effect on the three aforementioned categories of citizenship acquisition. Likewise, ethnic origins and religion also influence these decisions.

³ Sweden and Canada have ascension rates in excess of 70 percent of their eligible immigrant populations. In the US the figure is slightly less than 50 percent.

We use the 2005 wave of the German Socio-Economic Panel (GSOEP). Our data indicate that practically no respondents acquired the German citizenship after 2000, under the new German citizenship legislation. This means that the implementation of the new German citizenship law had no effect on the sampled immigrant's citizenship ascension decision. Given the limited number of post-2000 sampled immigrants we cannot control for the potential effects of Germany's new citizenship law in our empirical naturalization model. The GSOEP samples all legal immigrants in Germany. Since rarely any immigrant from an EU member state has taken the German citizenship or has indicated an interest to naturalize, our study concentrates on the sample of Turks and Ex-Yugoslavs only.

In the following section we review previous related literature on citizenship acquisition and consequences thereof and develop our research question. In section III we present our data, variables and model. In section IV we discuss the results of our empirical analysis. We conclude in section V with a discussion of potential policy outcomes of our findings.

II. RELEVANT LITERATURE AND THEORETICAL CONSIDERATIONS

The naturalization of immigrants has been traditionally considered by economists within the framework of economic integration into the destination society. The interest of most economic research on naturalization has been directed towards labor market effects of citizen acquisition. Bratsberg et al. (2002) find that the naturalization of young immigrant men in the US positively affects their integration into the local labor market; they have higher wages and are more likely to be

employed in white-collar jobs than comparable males without American citizenship. Similarly, DeVoretz and Pivnenko (2004) demonstrate that Canadian immigrant wages increase after citizenship acquisition. The empirical results of Mata (1999), however, indicate no relationship between naturalization and immigrants' wages in Canada. Conflicting results also arise in the European context when studying the economic impact of citizenship acquisition in Europe. Fougère and Safi (2006), for example, find that naturalization has a strong positive impact on the employment probability of immigrants in France, especially for those immigrants who would less likely be employed. In contrast, Bevelander (2000) finds in the Swedish context that, after naturalization, immigrants in Sweden become less economically active, and thus, are less likely to participate in the local labor market than prior to acquiring Swedish citizenship.

While naturalization in Denmark bears no significant effect on the probability to work, once naturalized immigrants join the labor market, they earn more (Constant and Zimmermann, 2005). In comparison to Germany, this same study finds that naturalized immigrants in Germany are more likely to work in paid-employment, less likely to go into self-employment, but they earn more in both self- and paid-employment. Lastly, citizenship acquisition is not a significant determinant of the earnings of German guestworker men and women (Constant, 1998). This is indicative of the fact that the legal status of immigrants may not be enough for earnings assimilation and that the citizenship variable can confine various other issues. Earnings assimilation of guestworkers is not as much a legal issue as it is a function of their social and economic and ethnic stratification. The reasons why immigrants pursue and acquire citizenship become therefore pertinent.

Few economists recognize the possibility that the naturalization of immigrants might be endogenous in their modeling of economic effects of citizenship acquisition (DeVoretz, 2006). Whether or not to naturalize in the destination country is a choice that immigrants make at some point after immigration. Their decision depends on various socio-economic, individual as well as demographic factors. DeVoretz and Pivnenko (2004), find that the decision to acquire Canadian citizenship among immigrants from developing countries depends on their age, marital status, presence of children, as well as their wages. Immigrants from developed countries, on the other hand, base their decision on their expectations of economic gains from citizenship. Citizenship acquisition is also important when studying the return migration of immigrants. Being a German citizen exerts a strong influence on the probability of going back to the country of origin, as it enables immigrants to a free exit and entry in Germany (Constant and Zimmermann, 2007). Studying dual citizenship allowance in the US, Mazzolari (2006) finds that those who come from countries which recently permitted dual citizenship are more likely to naturalize in the US.

This limited body of economic research on citizenship acquisition is in sharp contrast to the extensive research conducted by sociologists. The ground breaking work of Bernard (1936) demonstrates that the decision to naturalize positively relates to the immigrants' education, occupation, and family income. The choice to naturalize might also depend on the level of immigrants' assimilation within the native society in Australia (Evans, 1988). In contrast, Portes and Cutris (1987) argue that the naturalization decision does not depend on any demographic characteristics, or on the immigrants' level of assimilation, but rather on what roots immigrants have placed in

the host country, the residential patterns of both the sending and receiving countries, and the barriers that immigrants face after immigration and prior to making their naturalization decision. In addition, Young (1994) concludes that the naturalization decision depends on extant characteristics found in the immigrants sending country as well as the immigrants' ethnic group.

Our study follows existing research which emphasizes the role of country destination and the particular ethnic group under consideration. Therefore, we argue, to understand the dynamics of citizenship acquisition among non-EU immigrants in Germany, we cannot rely on the modeling and findings of immigrant acquisition in other immigrant destination countries like the US, Canada, and various European countries.

Thus, our paper concentrates on the differences in the decision process to acquire citizenship for Turkish and former Yugoslav immigrant residents in Germany. The choice of the two immigrant groups is motivated by the fact that these are the two largest modern immigrant groups in Germany. Moreover, unlike other countries that sent large numbers of guestworkers to Germany, Turkey and the former Yugoslavia are not members of the EU-15 or EU-25, and their emigrants do not enjoy the political and mobility privileges of this latter group.

In addition, our study focuses on both the decision to actually naturalize and the immigrants' willingness to acquire German citizenship sometime in the future. It is important to distinguish immigrants who do not have and do not want German citizenship from immigrants who do not have but would like to naturalize in

Germany. For many immigrants, changing citizenship and renouncing their own is not just a political issue; it is a very emotional one. The choice not to want to naturalize in Germany could be a signal of reluctance to completely integrate into the German society. It could also be that, for many first generation immigrants, a passport represents *the* link to their country of origin, to old friends, to good old times, to deceased parents, to their ethnic identity. This passport is like the last stronghold that defies the fact that they have been living abroad and Germany is their de facto country. Changing a passport is a betrayal to the origins. On the other hand, a willingness to naturalize in the future but not to have done it yet could indicate the possible presence of certain barriers such as the strict naturalization legislation in Germany, lack of time to devote to this lengthy process, financial constraints, or the fear of losing the citizenship of the country of origin. Having the German citizenship could be an indication of a conscientious political decision or a natural integration in the society. The difference between these motives is important for our study, as it might be defined by a different set of characteristics. In fact, we hypothesize that immigrants who have not naturalized, but would like to do it in the future, are more similar to immigrants who have already acquired German citizenship than to immigrants who do not want to naturalize at all.

To the set of standard human capital and demographic characteristics such as education, gender, and marital status, we add characteristics that capture and describe the immigrants' integration process into the German society and the immigrants' ethnicity. Though it is still not evident whether acquisition of the destination country's citizenship is a consequence of social, cultural or political integration, or whether citizenship fosters integration, it is nonetheless important to understand the

relationship between naturalization and integration. In addition, a clear perception of this relationship is useful for policy making directed at helping immigrants to become full-fledged members of the destination societies, with equal rights and responsibilities.

How the economy of the origin compares to the economy of the host country and what kind of citizenship laws the home country has exert an important role in the immigrants' decision to acquire the host country's citizenship. We therefore test the country of origin influence by including the origin dummies. To learn about the effect of ethnicity on the immigrants' decision to naturalize, we look also at the relationship between a migrant's religion and citizenship status. We are particularly interested in finding out if and how being a Muslim defines the choice to naturalize, because the question of cultural and religious differences between the dominant Christian German society and Muslim minorities is often raised in Germany. In short, we ask "Are Muslims willing to become equal members of a free democratic constitutional system enshrined in the Basic Law through naturalization?"

III. DATASET, VARIABLES, STATISTICS, AND MODELING

We use the 2005 wave of the German Socio-Economic Panel (GSOEP), a nationally representative survey collected yearly since 1984. The GSOEP reports extensive information on those ethnic groups of immigrants who started arriving to Germany as guestworkers in the late 1950s and 1960s, such as Turks, Greeks, Italians, Spaniards and people from the former Yugoslavia, but also immigrated after 1973, the year that marked the halt in the guestworker program. This rich dataset has information on pre-

and post-migration characteristics and, most importantly, willingness and plans to become a German citizen.

Our sample concentrates on foreign-born immigrants who came from Turkey or from the former Yugoslavia. These legal immigrants are the only two sizable groups, sampled in the GSOEP, who are not part of the EU-25, and have a significant incentive to acquire German citizenship. Our sample is also restricted to those respondents who have been in Germany for more than eight years, and therefore, pass the residency requirement for German citizenship acquisition.⁴ Moreover, because citizenship acquisition behavior of the family is greatly influenced by the head of the family we concentrate our analysis on household heads only. Accordingly, we end up with a sample of 387 immigrant household heads 25.3 percent of whom are females.

To estimate the probability to acquire German citizenship we run several multinomial probit models gauging the effects of integration and ethnicity. The dependent variable in our econometric models distinguishes among three types of immigrants according to their citizenship status: a) immigrants who have acquired German citizenship; b) immigrants who express a willingness to acquire German citizenship in the future and c) immigrants who do not have and do not want to acquire German citizenship in the future. About 24.3 percent of the individuals of our sample are German citizens, and 17.8 percent plan to apply for German citizenship. There are over fifty percent of immigrants expressing no willingness to acquire German citizenship. Interestingly, Table 2 reports that there are more German citizens among women immigrants than among men, and more women want to apply for German citizenship in the future than

⁴ Italians, Greeks and Spaniards in the GSOEP data set have not changed citizenship and have no relevant interest to naturalize.

men. The percent of German citizens among Muslim respondents is significantly lower than the percent of German citizens among non-Muslim respondents, but, on average, Muslims are more willing to acquire German citizenship than non-Muslims.

The first set of independent variables consists of standard individual and human capital characteristics. The descriptive statistics in Table 2 report the mean and standard deviations of the featured characteristics of the whole sample and by gender, ethnicity and religion. Because we concentrate our analysis on non-German born household heads that have spent more than eight years in Germany, the average age of sampled individuals is high. Thus, the average immigrant in our sample is 48.6 years old, and those from the former Yugoslavia are much older (almost 52 years) than the Turks (almost 47 years). The vast majority of the respondents are married, but there are substantial gender differences: Only 51 percent of the females are married in comparison to 95.5 percent of the males. On average, immigrants have about ten years of total education either at home or in Germany, and the length of education does not vary dramatically across gender, ethnic and religious groups.

The degree of immigrants' integration into the German society is captured by education in Germany (a 0/1 dummy), age at arrival, length of stay in Germany (both variables measured in years), and having native Germans as close friends (a 0/1 dummy). Only 38 percent of the total sample of immigrants acquired some education in Germany. The female and Turkish sub-samples contain the largest percentage of individuals with some education in Germany (47 and 46 percent, respectively). While, on average, immigrants from the former Yugoslavia are nearly one year longer

educated than Turkish immigrants, only 24.3 percent of the ex-Yugoslavs were educated in Germany in comparison to 46 percent of the Turks.

While the average immigrant was about 19 years old at the time of arrival, this varies by gender. The average immigrant woman was only about 16 years old when she migrated to Germany. About 44 percent of our sample has at least one German friend, with a wide variation by gender. Interestingly, 63.3 percent of women have close friends among native Germans. In contrast, only about 38 percent of men report having German friends. Similarly, a higher percentage of non-Muslims and ex-Yugoslavs has at least one native German friend compared to Turks and Muslims.

The variable “more than 15 years of stay in Germany” goes to the heart of the assimilation literature. The longer one lives in the host country the more likely one is to successfully integrate. It is an empirical question whether longer exposure to the host country influences citizenship acquisition. Moreover, this variable controls for cohort differences. Acknowledging the possibility of differences in citizenship acquisition behavior between those who arrived to Germany fifteen years earlier and those who arrived later, this variable also accounts for the effects of earlier citizenship legislation on the acquisition behavior of immigrants. The German citizenship law was revised in 1999, when the German government decided that an immigrant should be qualified for German citizenship after eight years of legal residence in Germany, as opposed to fifteen years of residence under the old citizenship legislation. Thus, those immigrants who were not qualified for German citizenship according to the old law, but who are eligible for German citizenship under the new law might now be

motivated to acquire German citizenship. Table 2 shows that about ten percent of our sample has been in Germany for fifteen years or less.

Immigrants in Germany also have heterogeneous arrival cohorts. Until 1973 most immigrants from Turkey or Yugoslavia came to Germany as guestworkers, recruited to help with the shortage of blue collar workers. As the German guestworker program for non-EU nationals ended in 1973 with the oil crisis intensifying a beginning recession, the Turks and Yugoslavs arriving after 1973 are mostly family members of those guestworkers who had settled in Germany. To account for this difference in cohorts, we include in some of our citizenship acquisition models a control for whether an immigrant arrived before 1973. Table 2 indicates that almost 54 percent of the sampled immigrants arrived to Germany prior to 1973, that is, as temporary workers. Table 2 further shows that Turks constitute 63.8 percent of the sample of which 78.5 percent are Muslims. Immigrants arriving from the former Yugoslavia account for the rest or 36.2 percent of the sample and among them 22.9 percent are Muslims.

Ethnicity of the sampled respondents in our analysis is measured jointly by the country of origin and religion. Slightly more than a third of our sample originates from the former Yugoslavia, while the rest of the sample comes from Turkey. More than half are Muslims (58.4 percent), of whom 83.8 percent are Turks and the rest come from the former Yugoslavia.

IV. EMPIRICAL RESULTS

Table 3 presents the results of four multinomial probit models of citizenship acquisition. The omitted category of the dependent variable refers to immigrants who do not have and do not plan to acquire German citizenship. The Base Model (Columns 1 and 5) is the bare minimum estimation based on the standard individual characteristics of immigrants such as gender, marital status and total years of education. In addition to these basic characteristics, the Integrationist Model (Columns 2 and 6) includes several indicators that capture how an immigrant has adjusted to German society. The Ethnicity Model (Columns 3 and 7) is the base model augmented by the migrants' ethnic origin and religion. Finally, the Complete Model (Columns 4 and 8) encompasses all characteristics to study their joint effect on citizenship acquisition.

Our Base Model (Column 1) indicates that there is a significant relationship between the immigrants' basic characteristics and their plans to acquire German citizenship. Column 1 clearly shows that female immigrants are more likely to want to acquire German citizenship in the future than male immigrants, compared to the omitted reference category (of not wanting to acquire German citizenship). Migrant women are also more likely to have already obtained German citizenship than migrant men are (Column 5). While marriage positively affects the plans to obtain German citizenship in the future, it has no statistical significance on the probability to have already acquired German citizenship (given the reference category). Total years of education has a significant and positive impact on future plans to acquire German citizenship and an even stronger impact on the actual possession of citizenship.

The persistence of these effects, however, varies when controlling for additional individual characteristics. Gender differences in the demonstrated willingness to acquire German citizenship remain statistically significant only in the Ethnicity Model (Column 3). Taking into account the degree of an immigrant's integration into the German society in the Integrationist and Complete Models eliminates the significant gender difference in the plans to acquire German citizenship in the future. However, gender differences remain positive and statistically significant across all four models when we estimate the actual possession of German citizenship (Columns 5 to 8). This finding shows overall strong gender differences with women having a higher proclivity to acquire German citizenship. All else constant, this could indicate that these immigrant women from Turkey and the former Yugoslavia find freedom and empowerment in becoming German citizens.

Similarly, after controlling for the level of immigrants' integration into the host society, marital status and years of education lose their statistical significance in predicting the willingness to acquire German citizenship. Yet, the above discussed positive relation between the length of education and actual possession of German citizenship remains significant across all four specifications of our citizenship models (Columns 5 to 8). Evidently, more educated immigrants are more likely to have naturalized in Germany compared to the reference category. This could be because with education immigrants realize the value of the German passport not only as a means of coming and going in and out of Germany easier, of avoiding visa issues and military service in the home country (for men), but as empowerment whereby they have voting rights, access to high end jobs and a better future for their children.

Our results show that it is important to account for the degree of immigrants' integration into the host society when studying acquisition of host citizenship. The Integrationist Model in Columns 2 and 6 demonstrates that having native German friends positively influences the immigrants' desire to acquire German citizenship as well as the likelihood of being naturalized. As expected, we also find that the younger a person is at the time of arrival to the host country the more eager one is to want to apply for German citizenship (Column 2) and to have acquired citizenship (Column 6). Quite surprisingly, however, our analysis shows that a longer duration of stay in Germany is negatively associated with the willingness to become German in the future and with having German citizenship. Immigrants who came to Germany before 1973 or those who have been in Germany for more than fifteen years are less likely to want to acquire German citizenship in the future (Column 2) and less likely to have naturalized (Column 6). This may reflect the fact that prior to the 1990s it was quite strenuous for foreigners to acquire German citizenship. By the time the citizenship legislation was relaxed, many immigrants might have become accustomed to life in Germany without German citizenship and being older did not want to expend the costs to acquire citizenship. The more recent immigrant arrivals, on the other hand, may still consider German citizenship beneficial for their life in Germany, and therefore, want to acquire it at the first opportunity. It is also possible that the psychology of those who arrived before 1973 as guestworkers impedes them from "becoming Germans." Their whole wherewithal, mentality and demeanor may still be associated with the temporary program and the illusion of returning. Those who came under the family reunification scheme, however, may be more realistic in considering Germany home and wanting to ascend to citizenship.

The Integrationist Model of citizenship also demonstrates that while education in Germany does not significantly correlate with the immigrants' willingness to acquire German citizenship in the future (Column 2), it is positively related to the probability of already holding German citizenship. For example, an immigrant who has some education in Germany is significantly more likely to have German citizenship than a migrant without any German education in relation to the reference category. However, this effect disappears once we control for additional individual characteristic in the Complete Model in Column 8. Apart from this exception, the impact of all measures of the immigrants' integration into the German society remains strong and significant in the Complete Model, even after additional controls.

Results from the Ethnicity Model in Columns 3 and 7 (Table 3) show that the origin and religion of immigrants also correlate with both the willingness to have and the actual possession of German citizenship, given the reference category of not willing to become German. Interestingly, Muslim immigrants are more likely to want to acquire, but less likely to have German citizenship than non-Muslims. Former Yugoslavs are no less eager to have German citizenship than non-Muslim Turkish immigrants are, but they are less likely to hold citizenship than non-Muslim Turks. These results change only slightly when additional controls for the immigrants' level of integration are added in the Complete Model (Columns 4 and 8). Here we find that, when compared to non-Muslim Turks, immigrants coming from the former Yugoslavia are more likely to want, but are less likely to have German citizenship. In the same way, Muslim immigrants are more likely to want to acquire German citizenship, but are not more likely to hold German citizenship than non-Muslim migrants are.

We finally investigate the overall performance of the models using likelihood-ratio tests for excluding groups of variables affiliated with a particular model (see Table 4). The first row deals with the simple Integrationist Model (Column 1) and the simple Ethnicity Model (Column 2) comparing their likelihood values with the likelihood value of the Base Model. The chi-square test-statistics clearly reject the Base Model in both cases. In the second row we exclude from the Complete Model the integration factors (Column 1) or the ethnicity factors (Column 2). Again, the likelihood-ratio tests indicate that both set of variables matter, and both models have their contribution. We, however, also find that the Integration Model seems to have more power than the Ethnicity Model.

V. CONCLUSION

Less than a quarter of the legal immigrants from Turkey and the former Yugoslavia are German citizens, although they qualify for it. Moreover, previous conflicting findings on the impact of naturalization on successful economic integration in the host country (even after controlling for human capital and individual characteristics), prompt us to study the determinants of naturalization with a fresh approach. We use the 2005 wave of the German Socio Economic Panel (GSOEP) to study the effect of ethnicity and integration in the German society on the probability of citizenship acquisition for these two sizable non-EU immigrant groups. We distinguish three groups of immigrants; those who have acquired German citizenship, those who have not yet naturalized, but would like to in the future, and those who do not have and do not want to obtain German citizenship. We are particularly interested in understanding the direction of the relationship between immigrants' integration in Germany and

their decision to naturalize, as well as in analyzing the relationship between the choice of German citizenship and immigrants' ethnicity.

Our empirical analysis indicates that immigrants who have naturalized and immigrants who would like to acquire German citizenship are different from immigrants who do not want to acquire German citizenship. Specifically, female immigrants are both more likely to want to acquire and to already have acquired German citizenship than male immigrants. This finding is robust across several specifications and shows that German citizenship is very valuable to women immigrants. Moreover, we find that married immigrants are more likely to want to have German citizenship, but there is no difference between married immigrants and those living alone in their actual citizenship status. Our results also show that more educated immigrants are more likely to want to naturalize in the future and to already have naturalized. This result remains strong across all employed multinomial probit models.

We also find a strong relationship between the immigrants' integration indicators into the German society and the probability to naturalize. Having close German friends is one of the strongest signs of a positive proclivity to German citizenship acquisition both actual and future. The younger immigrants are at arrival the greater are the odds that they have already acquired or that they want to acquire German citizenship. Education in Germany, however, correlates only marginally with acquisition of German citizenship. Much to our surprise, our empirical analysis indicates that the length of stay in Germany negatively affects the immigrants' willingness to naturalize or to already have naturalized. We explain this finding by the fact that immigrants

who have resided in Germany for a long time (more than 15 years) without German citizenship learn to live without it, and see no reasons to change their citizenship status. Another possible explanation is that those immigrants who were recruited as guestworkers before 1973 have kept the mentality and psychology of the temporary program, they hold on to their passport, lulled by the thought that they will one day return back to their homeland.

The ethnicity of immigrants, as manifested by country of origin and religion, is another important determinant of the immigrants' decision to naturalize in Germany. The Complete Model of citizenship acquisition shows that immigrants from the former Yugoslavia are more willing to naturalize, but are less likely to be naturalized than immigrants from Turkey. Similarly, we find that Muslim immigrants in Germany are more willing to become German citizens than non-Muslim immigrants. Yet, there are fewer German citizens among Muslims than among non-Muslims. These results point to the existence of certain institutional or cultural barriers faced by certain ethnic and religious immigrant groups when contemplating the acquisition of German citizenship.

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Table 1. Potential and actual numbers of naturalized immigrants in Germany

Year	Number of immigrants who arrived 9 years ago ¹	Potential outflow of immigrants who arrived 9 years ago	Potential number of immigrants who arrived 9 years ago and qualify to naturalize	Actual number of naturalized immigrants
2004	708,000 ²	283,689	424,311	127,153
2005	788,300 ²	396,840	391,460	117,241

Source: Own calculations using OECD Migration Outlook statistics on inflow, outflow, and stock of immigrants in Germany

Note: Columns 3 and 4 compare the number of immigrants who acquired German citizenship in a corresponding year (Column 4) with the minimum number of immigrants who qualify to naturalized (Column 3). The minimum number of immigrants qualifying to acquire German citizenship is estimated as the number of immigrants who arrived to Germany 9 years ago (Column 1) minus the potential number of immigrants who arrived to Germany 9 years ago but left the country before the corresponding year (Column 2). The 9 year limit corresponds to the German naturalization law, according to which an immigrant qualifies for naturalization after 8 years of residency in Germany. An additional year (8+1=9) accounts for the length of the red-tape naturalization procedure.

¹ Eight years of minimum residency requirement plus 1 year of naturalization procedure

² OECD Migration Outlook 2007

Table 2. Descriptive sample statistics (means, standard deviations) of foreign born in 2005

Characteristics	Total sample	Females	Males	Turks	Ex-Yugo-slavs	Muslims	Not Muslims
Have German citizenship	0.243 <i>0.429</i>	0.367 <i>0.485</i>	0.201 <i>0.401</i>	0.263 <i>0.441</i>	0.207 <i>0.407</i>	0.199 <i>0.400</i>	0.304 <i>0.462</i>
Plan to acquire German citizenship	0.178 <i>0.383</i>	0.184 <i>0.389</i>	0.176 <i>0.382</i>	0.174 <i>0.380</i>	0.186 <i>0.390</i>	0.212 <i>0.410</i>	0.130 <i>0.338</i>
Age	48.625 <i>12.719</i>	46.000 <i>12.576</i>	49.516 <i>12.665</i>	46.757 <i>12.437</i>	51.921 <i>12.583</i>	48.261 <i>12.627</i>	49.137 <i>12.869</i>
Female	0.253 <i>0.435</i>			0.186 <i>0.390</i>	0.371 <i>0.485</i>	0.146 <i>0.354</i>	0.404 <i>0.492</i>
Married	0.842 <i>0.365</i>	0.510 <i>0.502</i>	0.955 <i>0.208</i>	0.887 <i>0.318</i>	0.764 <i>0.426</i>	0.929 <i>0.257</i>	0.720 <i>0.450</i>
Total years of education	10.328 <i>2.319</i>	10.306 <i>2.508</i>	10.336 <i>2.256</i>	10.018 <i>2.164</i>	10.875 <i>2.486</i>	9.987 <i>2.254</i>	10.807 <i>2.331</i>
Education in Germany (dummy)	0.380 <i>0.486</i>	0.469 <i>0.502</i>	0.349 <i>0.478</i>	0.462 <i>0.500</i>	0.236 <i>0.426</i>	0.372 <i>0.484</i>	0.391 <i>0.490</i>
Age at arrival	19.271 <i>10.686</i>	16.020 <i>10.751</i>	20.374 <i>10.454</i>	17.356 <i>10.238</i>	22.650 <i>10.656</i>	19.646 <i>11.240</i>	18.745 <i>9.866</i>
Arrived before 1973	0.537 <i>0.499</i>	0.592 <i>0.494</i>	0.519 <i>0.501</i>	0.478 <i>0.501</i>	0.643 <i>0.481</i>	0.456 <i>0.499</i>	0.652 <i>0.478</i>
More than 15 years of stay in Germany	0.904 <i>0.294</i>	0.908 <i>0.290</i>	0.903 <i>0.296</i>	0.943 <i>0.232</i>	0.836 <i>0.372</i>	0.903 <i>0.297</i>	0.907 <i>0.292</i>
Have close German friends	0.442 <i>0.497</i>	0.633 <i>0.485</i>	0.377 <i>0.486</i>	0.381 <i>0.487</i>	0.550 <i>0.499</i>	0.341 <i>0.475</i>	0.584 <i>0.494</i>
Turk	0.638 <i>0.481</i>	0.469 <i>0.502</i>	0.696 <i>0.461</i>			0.858 <i>0.349</i>	0.329 <i>0.471</i>
Ex-Yugoslav	0.362 <i>0.481</i>	0.531 <i>0.502</i>	0.304 <i>0.461</i>			0.142 <i>0.349</i>	0.671 <i>0.471</i>
Muslim	0.584 <i>0.494</i>	0.337 <i>0.475</i>	0.668 <i>0.472</i>	0.785 <i>0.411</i>	0.229 <i>0.421</i>		
Number of observations	387	98	289	247	140	226	161

Note: Standard deviations in italics

Table 3. Multinomial probit models of citizenship acquisition; reference category is “do not want to acquire German citizenship”

Independent variables	<i>Would like to acquire German citizenship</i>				<i>Already have German citizenship</i>			
	Base	Models			Base	Models		
	(1)	Integra- tionist	Ethnicity	Complete	(5)	Integra- tionist	Ethnicity	Complete
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Constant	-2.363*** (-3.85)	0.179 (0.19)	-2.857*** (-4.25)	-0.360 (-0.37)	-2.644*** (-4.78)	-0.306 (-0.35)	-2.352*** (-3.94)	-0.213 (-0.23)
Female	0.608*** (2.10)	0.287 (0.93)	0.720*** (2.39)	0.294 (0.91)	0.900*** (3.45)	0.418* (1.47)	0.972*** (3.56)	0.490** (1.66)
Married	0.597** (1.65)	0.323 (0.85)	0.509* (1.38)	0.170 (0.44)	0.267 (0.87)	0.006 (0.02)	0.342 (1.08)	0.098 (0.29)
Total years of education	0.075* (1.63)	0.049 (0.96)	0.091** (1.9)	0.055 (1.05)	0.140*** (3.27)	0.085** (1.79)	0.161*** (3.58)	0.098*** (2.00)
Have close German friends		0.438** (1.92)		0.480*** (2.06)		0.535*** (2.45)		0.569*** (2.54)
Age at arrival		-0.054*** (-3.46)		-0.059*** (-3.68)		-0.051*** (-3.32)		-0.047*** (-3.01)
Arrived before 1973		-0.789*** (-3.09)		-0.754*** (-2.86)		0.098 (0.39)		0.164 (0.64)
More than 15 years in Germany		-0.774** (-1.91)		-0.730** (-1.76)		-1.068*** (-2.57)		-1.143*** (-2.66)
Education in Germany		-0.203 (-0.63)		-0.148 (-0.45)		0.448* (1.42)		0.393 (1.24)
Muslim			0.534** (1.92)	0.667*** (2.22)			-0.533*** (-2.06)	-0.300 (-1.08)
Ex-Yugoslav			0.112 (0.41)	0.517** (1.65)			-0.882*** (-3.30)	-0.558** (-1.84)
Log-Likelihood	-361.739	-326.605	-351.957	-320.051	-361.739	-326.605	-351.957	-320.051
Wald Chi-square	24.49	125.15	41.05	124.23	24.49	125.15	41.05	124.23
N of observations		387				387		

Note: The reference group consists of non-Muslim Turk men with no education in Germany, who arrived to Germany after 1973 and who do not want to acquire German citizenship; Dependent variable: equals 1 if a migrant does not have German citizenship but plans to acquire one in the future; equals 2 if a migrant is a German citizen; equals 0 if a person does not have and does not plan to acquire German citizenship (the reference category); one-tail z-test *** significant at 99%; ** significant at 95%; * significant at 90%; z-values in parentheses

Table 4. Likelihood-ratio test of integration and ethnicity effects

Testing integration effect (1)		Testing ethnicity effect (2)	
In Integrationist Model DF	70.27*** [4]	In Ethnicity Model DF	19.56*** [2]
In Complete Model DF	63.81*** [4]	In Complete Model DF	13.11*** [2]

Note: Table shows chi-square values with degrees of freedom in brackets; Chi-square values are obtained from the comparison of the log-likelihood of the indicated model with the log-likelihood when the tested effect is excluded from the indicated model; *** significant at 99%