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# Ethnicity, job search and labor market reintegration of the unemployed

Amelie F. Constant
*DIW DC, Washington, DC, USA, IZA, Bonn, Germany, and George Washington University, Washington, DC, USA*
Martin Kahanec
*Central European University, Budapest, Hungary, and IZA, Bonn, Germany*
Ulf Rinne
*IZA, Bonn, Germany, and*
Klaus F. Zimmermann
*IZA, Bonn, Germany, and University of Bonn, Bonn, Germany*

## Abstract

**Purpose** – This paper seeks to shed further light on the native-migrant differences in economic outcomes. The aim is to investigate labor market reintegration, patterns of job search, and reservation wages across unemployed migrants and natives in Germany.

**Design/methodology/approach** – The paper is based on the IZA Evaluation Dataset, a recently collected rich survey of a representative sample of entrants into unemployment in Germany. The data include a large number of migration variables, allowing us to adapt a recently developed concept of ethnic identity: the ethnosizer. The authors analyze these data using the OLS technique as well as probabilistic regression models.

**Findings** – The results indicate that separated migrants have a relatively slow reintegration into the labor market. It can be argued that this group exerts a relatively low search effort and that it has reservation wages which are moderate, yet still above the level which would imply similar employment probabilities as other groups of migrants.

**Research limitations/implications** – The findings indicate that special attention needs to be paid by policy makers to various forms of social and cultural integration, as it has significant repercussions on matching in the labor market.

**Originality/value** – The paper identifies a previously unmapped relationship between ethnic identity and labor market outcomes.

**Keywords** Migration, Ethnicity, Ethnic identity, Ethnosizer, Unemployment, Job search, Reservation wages, Ethnography, Germany, Job mobility, Immigrants

**Paper type** Research paper

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## 1. Introduction

Germany's immigration history started after the second world war. While immigrant workers were already needed in the 1950s, it was during the 1960s and the post-war economic boom when the country focused on the recruitment of low-skilled blue-collar foreign labor (Zimmermann, 1996; Bauer *et al.*, 2005). Bilateral agreements between Germany and several Southern European countries made the recruitment of these "guest workers" possible. Thousands of guest workers from Italy, Greece, Spain, the former Yugoslavia and Turkey were arriving in Germany until November 1973, when the recruitment of foreign labor came to a halt. A serious unintended consequence of the labor ban was that the guest workers settled in Germany, where they were joined by their spouses and children. Although many guest workers returned to their country of origin, many others stayed and raised their families in Germany. Today's second generation migrant group mainly consists of the offspring of guest workers.

Geopolitical changes and the collapse of the Soviet Union in the late 1980s and early 1990s resulted in massive migrant flows of ethnic Germans from Eastern Europe. A comparatively large number of humanitarian migrants also fled to Germany. The enlargement of the European Union (EU) in 2004 and again in 2007 resulted in increased migration streams from Central and Eastern European countries[1].

Today's composition of migrants in Germany is therefore dominated by five groups:

- the guest workers and their spouses;
- their offspring;
- ethnic Germans from Eastern Europe;
- recent immigrants from the EU and from the accession countries; and
- humanitarian migrants.

While the labor market integration of foreign men is relatively favorable by international standards, migrant women have comparatively low employment rates (Liebig, 2007). Furthermore, the situation of second generation migrants is generally a concern, as this group shows rather low educational outcomes.

In general, compared to natives, migrants have higher unemployment rates, lower employment rates and lower earnings in many countries. Therefore, the EU has identified migrants as a target group within its strategy to raise employment levels (Zimmermann, 2005). Germany and its immigrants serve as an interesting example in this regard. Within the EU, Germany has received comparably large migration flows over a long period. In 2007, almost 19 percent of the German population (or 15.4 million people) had a migration background. Fewer than half of those are actually foreign citizens. Among children aged 5 and under, the share is even higher: about one third descends from a family with a migration background. In addition, the unemployment rates of natives and migrants have been drifting apart since the early 1970s. In 2008, the average unemployment rate of immigrants was more than twice as high as that of natives (18.1 vs 8.0 percent, Statistik der Bundesagentur für Arbeit, 2009). Turks are by far the largest group of individuals with a migration background (about 2.5 million in 2007), followed by Poles, Russians and Italians (Rühl, 2009).

A few studies have tried to explain the German native-migrant differences in employment outcomes. An example of an earlier study, among others, is Mühleisen and Zimmermann (1994), and more recent studies include Kogan (2004) and Uhlendorff and Zimmermann (2006). The latter study shows that unemployed migrants:

- obtain less stable positions than natives with the same observable and unobservable characteristics; and
- need more time than natives to find these jobs.

First and second generation Turks are identified as the group with the greatest problems in this regard.

Ethnic identity is currently at the center of interest by a strand of the economic literature and of the economics of migration in particular. In contrast to ethnicity that is assigned at birth and remains unchanged throughout the individual's life, ethnic identity is chosen by the individual and can alter through time. Ethnic identity measures how people perceive themselves in comparison to others. It can thus differ among individuals of the same ethnicity and can also vary for the same person over time. Constant *et al.* (2009a) define ethnic identity as the balance between commitment to, affinity or self-identification with the culture, norms, and society of origin and commitment to or self-identification with the host culture and society[2]. Several studies support the economic and social importance as well as the consequences of different ethnic identities in a country, see Constant and Zimmermann (2011) for a comprehensive overview. There are also a number of channels through which one may expect ethnic identity to affect the process of job search. For example, it may approximate frames of reference for setting reservation wages (Constant *et al.*, 2010) or it may proxy the size or quality of a person's social network, which has important implications for job search (Caliendo *et al.*, 2011a). Next to ethnic identity, culture has been shown to matter for labor market outcomes. Brügger et al.'s (2009) recent study, for example, analyzes the role of culture in shaping unemployment outcomes. Exploring language borders in Switzerland as an identification strategy, the study shows that cultural differences explain differences in unemployment durations in the order of 20 percent. Therefore, culture seems to be as important in unemployment as strong changes in the benefit duration are.

Our paper sheds more light on the native-migrant differences in employment outcomes driven by variations in migrants' and natives' ethnic identity. Based on recently collected and rich survey data of a representative inflow sample into un-employment, we focus on the labor market reintegration, job search and reservation wages of unemployed. We follow a recently developed concept of ethnic identity – the ethnosizer – that is introduced in the economics of migration and the labor markets (Constant and Zimmermann, 2009). The ethnosizer is a quantitative measure of how ethnic an individual is *vis-à-vis* the home and the host countries. It is composed of five elements:

- language;
- culture;
- ethnic self-identification;
- ethnic interaction; and
- migration history.

The two-dimensional ethnosizer distinguishes four states or regimes of ethnic identity:

- assimilation;
- integration;
- marginalization; and
- separation.

Furthermore, we differentiate between two groups of migrants: migrants who are not German-born, and migrants who are German-born, but either do not have German citizenship or whose parents are neither German-born nor have German citizenship. Our data allow us to analyze one element of ethnic identity – ethnic self-identification – for both immigrants and natives. The availability of this piece of information makes the migrant-native comparison possible.

Our results show that immigrants in the separation regime (i.e. those who strongly cling on to their origin and are not attached to or identify with the host country), and in particular first generation migrants, exhibit a relatively slow reintegration into the labor market. Their employment probability, measured two months after they enter unemployment, is lower than that of other unemployed groups in the rest of the regimes, other things equal. Analyzing the job search efforts and reservation wages of those individuals who are still seeking employment after being unemployed for two months we discover an interesting mechanism of job search success and ethnic identity. Comparing separated migrants to those in the marginalization regime (i.e. those who are neither attached to Germany nor to their origin), we find that separated migrants exert a relatively low search effort. More importantly, we find relatively low reservation wages for separated migrants and particularly low reservation wages for marginalized migrants. Our explanation for these findings is the following: while marginalized migrants are willing to adequately lower their reservation wages to compensate for a relatively low search effort, separated migrants maintain high reservation wages. In addition, their reservation wages are above the threshold level that would enable them to end up with similar employment probabilities as migrant groups of different ethnic identity. Our findings are also relevant from a policy perspective in that they help, for example, to design sub-group specific early interventions in the unemployment spell.

The remainder of this paper is structured as follows: in section 2 we present the ethnosizer as a concept and an index in the ethnicity and ethnic identity framework. In section 3 we outline our data and the sample used in the analysis and we provide summary statistics. We proceed with our empirical analysis findings in section 4, and we conclude in section 5.

## 2. Ethnicity, ethnic identity and the ethnosizer

What are the factors that can explain migrants' higher unemployment rates, lower employment rates and lower earnings when compared to natives in many other countries? The stock of human capital, the time spent in the host country and other observable characteristics have proven to explain only part of the native-migrant gaps. Further characteristics that have explanatory power in this context are the country of origin and ethnicity; yet a substantial fraction of migrant-native disparities in the labor market still remains unexplained with such approaches.

Recent economic research has brought about a complex multidimensional concept of ethnic identity. The aim of the concept is to explain a larger fraction of the native-migrant differences in labor market outcomes. It draws on the conjecture that the intensity of ethnic attachment to both the host and the home country can serve as an additional explanatory factor with respect to the observed native-migrant differences in labor market performance. Theoretical arguments supporting this view can be found in Darity *et al.* (2006). The cornerstone of their framework is the productivity that stems from social interactions. Group resources, available to all individuals in the group, enhance the individual's productive potential in these social interactions.

Our study focuses on the process of job search exercised by unemployed individuals, in which the productivity of social interactions can have tremendous effects. In general, the literature agrees that informal search channels are popular and also constitute effective methods of finding a job (Granovetter, 1973, 1995; Holzer, 1988; Blau and Robins, 1990; Montgomery, 1991). Access to, and the actual use of, informal channels can therefore matter a lot for future employment outcomes, but there may be important differences across ethnic groups in the way the groups use their connections to pursue their interests and attain their goals. Bourdieu and Wacquant (1992) define social capital as "the sum of the resources, actual or virtual, that accrue to an individual or a group by virtue of possessing a durable network of more or less institutionalized relationships of mutual acquaintance and recognition" (p. 119). Social capital is also a product of "embeddedness" (Portes, 1995). The social capital of migrants is thus closely linked to their attachment to and integration into the host society. The composition of networks may very well differ across ethnic groups.

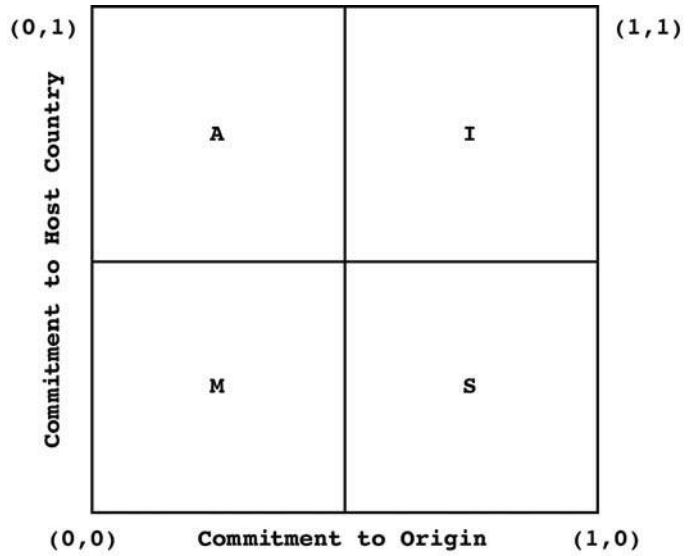
Assuming that migrants' networks are to a large extent composed of ethnic peers, who also face higher unemployment rates than the native population, then the migrants' job search is less effective than that of natives. Specifically, less integrated or assimilated migrants, who mainly have access to a network of co-ethnics, may be less likely to receive and process useful inside information about jobs; they have fewer connections with employed individuals than integrated or assimilated migrants, or even natives have.

We employ the concept of ethnic identity, which is based on the conjecture that migrants experience a severe cultural shock upon arrival in the host country. In a two-dimensional plane-having one dimension for the home and one for the host country-ethnic identity or the ethnosizer can form four distinct states or regimes:

- assimilation;
- integration;
- marginalization; and
- separation.

Individuals are classified in each state according to their struggle between keeping (or abandoning) the ethnic identity of their country of origin and adopting (or disregarding) the ethnic identity of the host country. Figure 1 provides a visualization of the concept of the ethnosizer.

More specifically, we apply the concept of the ethnosizer as described in Constant *et al.* (2009a). The two-dimensional ethnosizer considers information on commitments to both the host and home societies and cultures. It is important to note that the ethnosizer is




**Note:** A: Assimilation; I: Integration; M: Marginalization; S: Separation

**Source:** Constant *et al.* (2006)

**Figure 1.**
The ethnosizer as a two-dimensional measurement of ethnic identity

composed of five essential elements of ethnic identity. Therefore, an individual is classified in a certain state for each element. It is possible that a migrant is integrated linguistically, but remains separated in the element "interactions with natives." The same individual could be assimilated in the element "migration history" and separated in the element "culture." Studies supporting the relevance of ethnic identity – and the ethnosizer – show that ethnic identity significantly affects the migrants' attachment to and performance in the host country's labor market, beyond factors such as human capital and ethnic origin (Zimmermann, 2007a, b; Constant and Zimmermann, 2009).

The main findings of this line of research can be summarized as follows: assimilation and integration generally lead to positive economic outcomes, even though for men assimilation does not necessarily lead to an advantage in the labor market compared to being integrated. For women, the probability of working is much higher when they are integrated, as opposed to being assimilated. The effects of separation and marginalization are negative. Ethnic identity is important for entering the labor market, but does not play a significant role for subsequent earnings prospects (Constant and Zimmermann, 2009).

Constant and Zimmermann (2008) show that the ethnosizer mainly depends on pre-migration characteristics and that it is exogenous to economic activity. Ethnic identity is again found to significantly affect economic outcomes. Furthermore, it has been shown that the concept of the ethnosizer has explanatory power beyond labor market outcomes. For instance, it can be applied to the housing market. Constant *et al.* (2009b) present evidence suggesting that immigrants in Germany who have a stronger commitment to the host country are more likely to achieve homeownership for a given set of socioeconomic and demographic characteristics, regardless of their level of attachment to their home country.

Using data from the German Socio-Economic Panel (GSOEP), Casey and Dustmann (2010) are less optimistic regarding the explanatory power of ethnic identity for labor market outcomes. However, they present evidence of a strong intergenerational transmission of identity over migrant generations. Other studies supporting the impact of ethnic identity on different aspects of migrants' economic behavior include Nekby and Rödin (2007, 2010) and Battu and Zenou (2010). Pendakur and Pendakur (2005) focus on the process of job search. Their findings are consistent with ethnic identity playing a role in ethnically based job-finding networks, i.e. for informal job search.

## 3. Data

Our empirical analysis uses data from the IZA Evaluation Dataset (Caliendo *et al.*, 2011b). We concentrate on one of the two pillars of the dataset: a survey of almost 18,000 individuals who entered unemployment between June 2007 and May 2008. One of the many advantages of this dataset is that a sizeable sample of individuals were interviewed shortly after entering unemployment (in a two month period). The respondents were interviewed again one and three years later. The dataset contains information on a large variety of topics. It especially covers many important individual characteristics which are rarely available for economic research, but have been shown to influence economic outcomes. Examples include personality traits (Borghans *et al.*, 2008), attitudes (Bonin *et al.*, 2007), and cognitive skills (Heckman *et al.*, 2006).

In addition, the IZA Evaluation Dataset offers the unique opportunity to study the impact of ethnic identity – a usually unobserved variable – on economic outcomes, focusing on the unemployed population. Household surveys, which may contain similar information, are generally designed to be representative of the entire population[3]. This has an important drawback when studying unemployed individuals, as sample sizes decrease substantially. Moreover, the set-up of the survey part of the IZA Evaluation Dataset has explicitly taken into account the specific situation of individuals with a migration background in Germany. Dependent on the language skills of the interviewee, the interviews were also available in Turkish and Russian, i.e. the native languages of two major groups of immigrants in Germany. Often in such surveys, insufficient skills in the host country's language lead to above average drop-out rates among immigrants. This would in turn result in a selective sample. The IZA Evaluation Dataset specifically addresses this problem. Altogether, 207 individuals were interviewed in either Turkish or Russian[4].

For our analysis, we select individuals between 18 and 55 years old when entering unemployment to avoid difficulties with accounting for the decision to (early) re-tire. Moreover, we exclude individuals with missing information on important characteristics. Our sample consists of 13,010 individuals, and among those 2,641 have a migration background: 1,586 individuals are not German-born (henceforth referred to as first generation migrants); and 1,055 individuals are German-born, but either do not have German citizenship or their parents are neither German-born nor they have German citizenship (they are labeled second generation migrants).

Table I displays descriptive statistics of our sample by migration background. Both migrant groups are slightly younger than natives, and a larger share is female. Roughly 70 percent of first generation migrants have German citizenship. This share is about 10 percentage points higher among second generation migrants. The fraction of

| | Natives | 1st gen. | 2nd gen. |
|---|---|---|---|
| *Sociodemographic characteristics* | | | |
| Age (in years) | 35.773 | 34.560 | 33.672 |
| | (10.495) | (10.094) | (10.020) |
| Male | 0.534 | 0.508 | 0.497 |
| | (0.499) | (0.500) | (0.500) |
| German citizenship | 1.000 | 0.670 | 0.814 |
| | (0.000) | (0.470) | (0.389) |
| East Germany | 0.334 | 0.067 | 0.167 |
| | (0.472) | (0.251) | (0.373) |
| Married | 0.424 | 0.576 | 0.400 |
| | (0.494) | (0.494) | (0.490) |
| *Educational attainment* | | | |
| No formal degree | 0.018 | 0.058 | 0.029 |
| | (0.134) | (0.234) | (0.169) |
| Secondary school (9 years) | 0.293 | 0.320 | 0.358 |
| (*Hauptschule*) | (0.455) | (0.466) | (0.480) |
| Secondary school (10 years) | 0.435 | 0.330 | 0.366 |
| (*Realschule*) | (0.496) | (0.471) | (0.482) |
| Technical college entrance qualification (11-12 years) | 0.053 | 0.048 | 0.051 |
| (*Fachabitur, Fachhochschulreife*) | (0.223) | (0.214) | (0.220) |
| General qualification for university entrance (12-13 years) | 0.201 | 0.244 | 0.195 |
| (*Abitur, Allgemeine Hochschulreife*) | (0.401) | (0.430) | (0.397) |
| *Vocational attainment* | | | |
| No formal degree | 0.089 | 0.240 | 0.165 |
| | (0.285) | (0.427) | (0.371) |
| Apprenticeship (dual system) | 0.623 | 0.438 | 0.569 |
| | (0.485) | (0.496) | (0.495) |
| Specialized vocational school | 0.141 | 0.149 | 0.150 |
| | (0.348) | (0.357) | (0.357) |
| University, technical college | 0.147 | 0.173 | 0.117 |
| | (0.354) | (0.379) | (0.321) |
| *Previous employment* | | | |
| Net hourly wage (in euros) | 6.760 | 6.548 | 6.851 |
| | (4.168) | (3.816) | (4.196) |
| Duration (in months) | 42.572 | 35.336 | 35.191 |
| | (69.982) | (56.380) | (56.309) |
| No. of observations | 10,369 | 1,586 | 1,055 |

**Notes:** Natives: German-born and German citizen, and parents German-born and German citizens; first generation: not German-born; second generation: German-born, but not German citizen, or parents not German-born nor German citizens
**Source:** IZA Evaluation Dataset, wave 1, own calculations.

**Table I.**
Descriptive statistics (selected variables)

individuals living in Eastern Germany is substantially lower among immigrants than among natives. While one in three natives in our sample lives in this part of Germany, only one in six second generation migrants resides in Eastern Germany and merely 7 percent of first generation migrants. With respect to marital status, natives and second generation migrants are similar. However, first generation migrants are more likely to be married; more than half of the first generation migrants are married.

Regarding the educational and vocational attainment of migrants in our sample, Table I shows that the share of both first and second generation migrants with no formal degree is higher than that of natives. However, first generation migrants stand out in that they are more likely than natives to have obtained the general qualification for university entrance, and a degree from a university or a technical college. The polarization of educational outcomes is therefore the greatest in the first generation migrant group.

With respect to their employment related characteristics before they entered unemployment and were interviewed, natives and second generation migrants earned, on average, higher net hourly wages than first generation migrants did. However, the average previous employment duration is the longest for natives (3.5 years); first and second generation migrants report a slightly shorter employment duration (about 3 years). In general, all three groups of these recent entrants into unemployment – natives, first and second generation migrants – had a relatively strong attachment to the labor market in the past. This is also due to the design of our inflow sample into unemployment which, by construction, excludes the long-term unemployed.

To quantify the ethnic identity of individuals, we combine and weigh together information on four essential elements of the ethnosizer:

- language;
- ethnic self-identification;
- ethnic interaction; and
- migration history[5].

Table II presents the specific variables used for the construction of the ethnosizer and its classification by factor group. Note that although information on the four elements is in general available only for migrants, information on ethnic self-identification is available for natives as well.

With respect to language usage and ability, we approximate the commitment to the host country via the command of the German language and the commitment to the country

| | Availability |
|---|---|
| *(1) Language* | |
| German language skills | Migrants |
| Family language | |
| *(2) Ethnic self-identification* | |
| Self-identification with Germany | Migrants and natives |
| Self-identification with country of origin | |
| *(3) Ethnic interaction* | |
| Language with friends – German | Migrants |
| Language with friends – other | |
| *(4) Migration history* | |
| Intention to apply for German citizenship | Migrants |
| Intention to stay in Germany in 5 years (in 10-15 years) | |

**Note:** For natives, self-identification with the country of origin is replaced by the attraction of cultures, customs and traditions of other countries

**Table II.**
Four elements of ethnic identity composing the ethnosizer

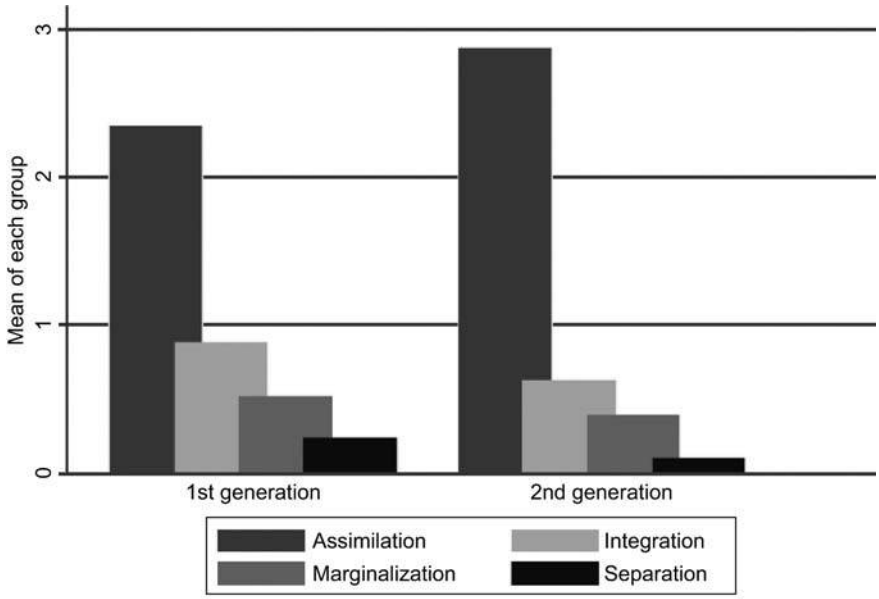
of origin via the actual communication with family members. More specifically, a respondent with a "very good" or "good" command of the German language, who communicates to his or her family members at least half in another language is classified as linguistically integrated; a respondent with at least a "good" command of the German language, who communicates to his or her family members "only" or "mostly" in German is classified as linguistically assimilated; a respondent with relatively poor or no command of the German language, who communicates to his or her family members at least half in another language is classified as linguistically separated; and finally, a respondent with relatively poor or no command of the German language, who communicates to family members "only" or "mostly" in German is classified as linguistically marginalized.

In a similar fashion, we classify individuals in the four states with respect to the other three elements. Those who self-identify strongly with Germany and with the country of origin are considered as integrated with respect to ethnic self-identification; individuals who self-identify strongly with Germany but to a lower extent with the country of origin are considered as assimilated with respect to ethnic self-identification; people who self-identify strongly with the country of origin are considered as separated with respect to ethnic self-identification; and finally, people who self-identify only weakly with either Germany or the country of origin are considered as marginalized with respect to ethnic self-identification. To construct this same measure for natives, self-identification with the country of origin is replaced by the attraction of cultures, customs and traditions of other countries. Accordingly, we classify individuals along the dimension of ethnic interaction and migration history as integrated, assimilated, separated and marginalized.

Figure 2 displays the distribution of first and second generation migrants across the four regimes of the ethnosizer in our sample. Both groups have the highest scores in assimilation. Integration ranks second, while separation and marginalization have relatively low scores in both groups of migrants. Interestingly, assimilation is more pronounced for second generation migrants in our sample. Their score for assimilation is particularly high. At the same time, their score in separation is quite low. Overall, the distribution reflects that individuals in our sample had a relatively strong labor market attachment in the past.

This impression is reinforced for one particular element of the ethnosizer, which we can also construct for natives: ethnic self-identification. One can think of integrated natives as individuals who show both a strong commitment to Germany and to foreign countries and foreigners; they are individuals who have a more internationally-oriented perspective, they are more worldly, cosmopolitan and aware of other cultures and other peoples. Assimilated, marginalized and separated natives are classified accordingly. Figure 3 shows the distribution of ethnic self-identification by migration status. It appears that both migrant groups are fairly similar, although a larger fraction of second generation migrants is classified as marginalized. In both groups, the majority of individuals are either integrated or assimilated. However, a substantially smaller fraction of natives appears to be integrated. While the share of assimilated natives is even higher than among migrants, the share of natives who are marginalized is also higher than among individuals with a migration background.

Below we investigate the labor market reintegration, job search channels and reservation wages of the individuals in our sample when they are interviewed for the first time. The first interview is approximately two months after the individuals enter unemployment. We are thus able to focus on a very early stage of the respective




**Notes:** Mean scores for each of the four states of the ethnosizer. First generation: not German-born; second generation: German-born, but not German citizen, or parents not German born nor German citizens

**Source:** IZA Evaluation Dataset, wave 1, own calculations

**Figure 2.**
Two-dimensional ethnosizer by migration status

unemployment spell. We describe our outcome variables in more detail in the course of the following section.

## 4. Empirical analysis

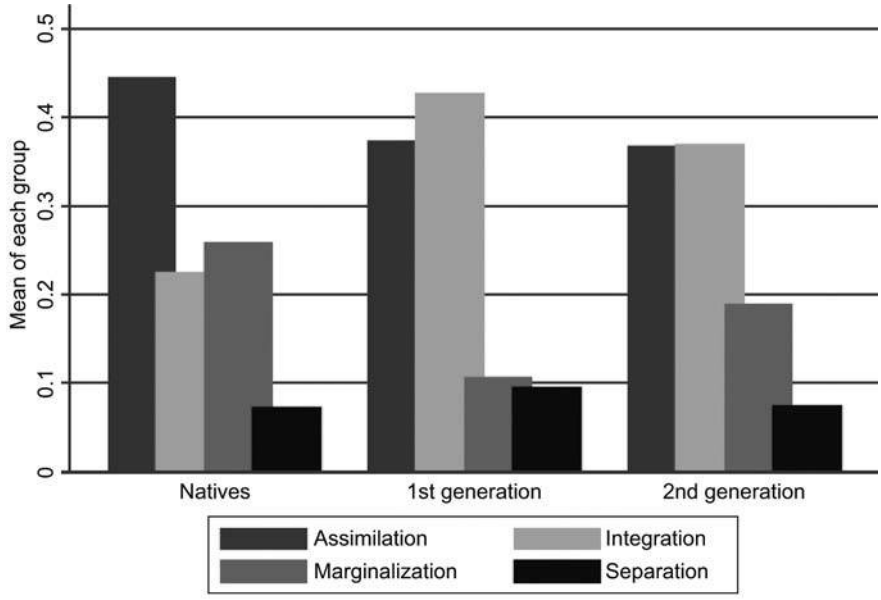
In this section, we investigate the relationships between:

- the ethnosizer, as a general and compact measure of four elements of ethnic identity and the outcome variable under consideration; and
- the ethnic self-identification element alone, as provided by the individuals in the survey and the outcome variable under consideration.

While the ethnosizer has already been proven in earlier research to affect labor market outcomes, it has so far not been applied with a focus on the unemployed alone. In addition, having information on ethnic self-identification for both migrants and natives allows us to compare these two groups better in this part of our analysis.

### *4.1 Labor market reintegration*

Roughly 20 percent of the unemployed individuals in our sample had found unsubsidized (self-)employment by the time they were interviewed for the first time (see Table III). An additional 4 percent were in some subsidized forms of employment and another 3 percent were considered as being out of the labor force; they reported being students (education, apprenticeship) or being inactive. Therefore, about 73




**Notes:** Mean score, i.e. the fraction of individuals classified as assimilated, integrated, marginalized or separated according to one dimension of the ethnosizer: ethnic self-identification. Natives: German-born and German citizen, and parents German-born and German citizens; first generation: not German-born; second generation: German-born, but not German citizen, or parents not German-born nor German citizen

**Source:** IZA Evaluation Dataset, wave 1, own calculations

**Figure 3.**
Ethnic self-identification by migration status

| | Natives and Migrants | Natives | Migrants (1st gen.) | Migrants (2nd gen.) |
|---|---|---|---|---|
| Unsubsidized (self-)employment | 20.43 | 21.10 | 18.28 | 17.06 |
| Subsidized (self-)employment | 3.77 | 3.71 | 4.04 | 3.89 |
| Unemployment | 69.59 | 69.14 | 70.68 | 72.42 |
| ALMP | 3.41 | 3.36 | 3.91 | 3.13 |
| Education | 0.28 | 0.27 | 0.25 | 0.47 |
| Apprenticeship | 1.45 | 1.42 | 1.51 | 1.61 |
| Inactive | 1.08 | 1.00 | 1.32 | 1.42 |
| No. of bservations | 13,010 | 10,369 | 1,586 | 1,055 |

**Note:** In percent
**Source:** IZA Evaluation Dataset, wave 1, own calculations

**Table III.**
Status at the first interview

percent of our sample were still unemployed or participated in active labor market policies (ALMP). Examining our three groups (natives, first and second generation migrants) separately, the raw statistics of Table III do not show any major differences with respect to their employment status at the first interview. However, migrants in

general, and second generation migrants in particular, are slightly more likely to be unemployed and less likely to be employed at this point of their unemployment spell.

Table IV presents the results of probit regressions, with the probability of being employed at the first interview as the dependent variable. The difference between the two models is that in the first model (upper tier of Table IV) we explain the outcome variable by ethnic self-identification and in the second model (lower tier of Table IV) we explain the outcome variable by the ethnosizer. Both specifications contain other standard variables in the migration and job search literature as controls.

Compared to assimilated individuals in terms of ethnic self-identification, all individuals in the other three states (integration, marginalization and separation) show a slower reintegration into the labor market. In particular, we find that separated individuals are significantly less likely to be employed at the first interview. The magnitude is about 3 percentage points and very similar across sub-samples. When we only consider migrants of first and second generation, however, the estimated marginal effect is no longer statistically significantly different from zero. Moreover, the results seem to be mainly driven by male individuals.

When we employ the two-dimensional ethnosizer in our analysis of reintegration in the labor market, we again find that separated migrants are significantly less likely to be employed at the first interview when compared to assimilated individuals. Interestingly, this result is driven by first generation migrants, because when we restrict our analysis to second generation migrants we do not find any significant effects of the elements of the ethnosizer. We do not observe any major differences by gender either.

Overall, it appears that when separated first generation migrants enter unemployment they have a relatively slow reintegration into the primary labor market. When we include natives in our analysis, we find that separated individuals in general, and separated male individuals as well as natives are the groups with substantially lower employment probabilities at the first interview[6].

### *4.2 Channels of job search*

Our previous results may be driven by different search strategies employed by the job seekers, which in turn may be influenced by their ethnic identity. We therefore look at the search channels that individuals have used to find a new job. More specifically, we estimate new regressions in which we the number of different channels used is the dependent variable[7]. This approach is similar to the one employed in Holzer (1988), and Blau and Robins (1990). We interpret the number of search channels as an approximation of the intensity of job search or as the search effort which has been exerted[8]. Both ethnic self-identification (available for both natives and migrants) as well as the ethnosizer are included in this exercise.

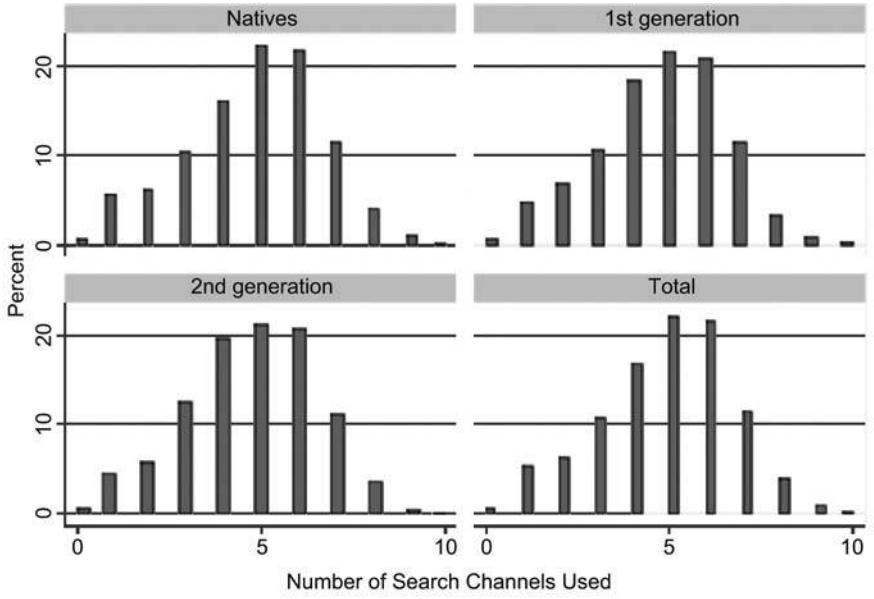
Figure 4 illustrates the distribution of the number of search channels used by natives and by the first and second generation migrants. It appears, at first sight, that based on raw statistics the distributions look very similar. To really understand if there are differences, as we have conjectured, we proceed with multivariate analysis and control for further characteristics. We present the results of these estimations in Table V. Similar to the structure of Table IV, the upper part of Table V displays our findings when we include the ethnic self-identification as an explanatory variable. Marginalized individuals use significantly fewer search channels than assimilated individuals. Among migrants, and both among first and second generation migrants,

**Table IV.**
Labor market reintegration of the unemployed, ethnic self-identification and the ethnosizer

| | Natives and migrants | Migrants | Migrants (1st gen.) | Migrants (2nd gen.) | Natives | Male individuals | Female individuals |
|---|---|---|---|---|---|---|---|
| *Ethnic self-identification* | | | | | | | |
| Assimilation | reference (reference) | reference (reference) | reference (reference) | reference (reference) | reference (reference) | reference (reference) | reference (reference) |
| Integration | −0.0123 | −0.0120 | −0.0067 | −0.0190 | −0.0091 | −0.0071 | −0.0159 |
| | (0.0084) | (0.0162) | (0.0213) | (0.0249) | (0.0100) | (0.0126) | (0.0108) |
| Marginalization | −0.0046 | −0.0105 | −0.0292 | 0.0021 | −0.0040 | −0.0086 | −0.0020 |
| | (0.0087) | (0.0215) | (0.0284) | (0.0314) | (0.0096) | (0.0126) | (0.0116) |
| Separation | −0.0280** | −0.0336 | −0.0273 | −0.0351 | −0.0256* | −0.0331* | −0.0185 |
| | (0.0125) | (0.0238) | (0.0313) | (0.0373) | (0.0145) | (0.0188) | (0.0162) |
| Pseudo $R^2$ | 0.1266 | 0.1242 | 0.1547 | 0.1402 | 0.1343 | 0.1230 | 0.1501 |
| No. of observations | 13,010 | 2,641 | 1,573 | 1,055 | 10,369 | 6,868 | 6,136 |
| *The ethnosizer* | | | | | | | |
| Assimilation | | reference (reference) | reference (reference) | reference (reference) | | reference (reference) | reference (reference) |
| Integration | | −0.0091 | −0.0119 | −0.0090 | | 0.0033 | −0.0182 |
| | | (0.0094) | (0.0119) | (0.0159) | | (0.0145) | (0.0120) |
| Marginalization | | 0.0085 | 0.0114 | 0.0092 | | 0.0072 | 0.0172 |
| | | (0.0113) | (0.0138) | (0.0204) | | (0.0169) | (0.0143) |
| Separation | | −0.0304* | −0.0340* | 0.0063 | | −0.0248 | −0.0371 |
| | | (0.01564) | (0.0183) | (0.0328) | | (0.0217) | (0.0229) |
| Pseudo $R^2$ | | 0.1256 | 0.1571 | 0.1395 | | 0.1473 | 0.1840 |
| No. of observations | | 2,641 | 1,573 | 1,055 | | 1,313 | 1,303 |

**Notes:** Probit regressions (marginal effects). Dependent variable: unsubsidized (self-)employment at the first interview. Additional control variables include sex, age, age$^2$, disability, marital status, employment status of partner, children, East Germany, educational attainment, vocational attainment, duration of last employment, unemployment benefits, state dummies, cohort dummies, time lag dummies, and country of birth; ***significant at 1 percent; **significant at 5 percent; *significant at 10 percent

**Source:** IZA Evaluation Dataset, wave 1, own calculations




**Notes:** Percentage of individuals who report a given number of search channels used. There are ten possible search channels to select from: a) job advertisements in the newspaper, b) personally advertising as a job seeker, c) job information system, d) contact with acquaintances, relatives, other private contacts, e) agent from the employment agency, f) internet research, g) private agent with voucher, h) private agent without voucher, i) blind application at companies, and j) other channels. Natives: German-born and German citizen, and parents German-born and German citizens; first generation: not German-born; second generation: German-born, but not German citizen, or parents not German-born nor German citizens

**Source:** IZA Evaluation Dataset, wave 1, own calculations; Graphs by Migration Status

**Figure 4.**
Number of search channels used by migration status

we observe that integrated individuals use more search channels than their assimilated counterparts. This is not the case for natives. Our results do not indicate substantial gender differences[9].

When we include the two-dimensional ethnosizer as an explanatory variable (see lower part of Table V), we find that both marginalization and separation are associated with a significantly lower number of search channels used to find employment. However, this is not statistically significant for second generation migrants. On the other hand, individuals in the integration state use more search channels when they look for a job, compared to those in the assimilation state in all cases, although not significantly. There are some gender differences in the estimated parameters, although most coefficients are not statistically significant from assimilation.

Therefore, if one indeed views the number of search channels as an approximation of the individuals' search effort, our results suggest that marginalized and separated migrants (both of the first and second generation) exert lower efforts in finding employment in the first two months after entering unemployment, compared to assimilated or integrated migrants. On the other hand, we also find evidence that

**Table V.**
Job search of the unemployed, ethnic self-identification and the ethnosizer

| | Natives and migrants | Migrants | Migrants (1st gen.) | Migrants (2nd gen.) | Natives | Male individuals | Female individuals |
|---|---|---|---|---|---|---|---|
| *Ethnic self-identification* | | | | | | | |
| Assimilation | reference (reference) | reference (reference) | reference (reference) | reference (reference) | reference (reference) | reference (reference) | reference (reference) |
| Integration | 0.0268 | 0.1715* | 0.1228 | 0.1891 | −0.0076 | 0.0014 | 0.0452 |
| | (0.0443) | (0.0889) | (0.1167) | (0.1423) | (0.0516) | (0.0650) | (0.0601) |
| Marginalization | −0.1054** | −0.0857 | 0.0262 | −0.1730 | −0.1197** | −0.1209* | −0.1080* |
| | (0.0443) | (0.1154) | (0.1697) | (0.1685) | (0.0482) | (0.0637) | (0.0612) |
| Separation | 0.0096 | −0.0817 | −0.1543 | 0.0249 | 0.0359 | 0.0265 | −0.0139 |
| | (0.0701) | (0.1480) | (0.1847) | (0.2653) | (0.0797) | (0.1017) | (0.0968) |
| $R^2$ | 0.0490 | 0.0806 | 0.1124 | 0.0845 | 0.0491 | 0.0660 | 0.0443 |
| No. of observations | 10,719 | 2,178 | 1,306 | 872 | 8,541 | 5,480 | 5,239 |
| *The ethnosizer* | | | | | | | |
| Assimilation | | reference (reference) | reference (reference) | reference (reference) | | reference (reference) | reference (reference) |
| Integration | | 0.0755 | 0.0248 | 0.1079 | | 0.0437 | 0.1082 |
| | | (0.0525) | (0.0662) | (0.0898) | | (0.0779) | (0.0688) |
| Marginalization | | −0.1252** | −0.1280* | −0.1641 | | −0.1149 | −0.1578* |
| | | (0.0613) | (0.0746) | (0.1198) | | (0.0884) | (0.0867) |
| Separation | | −0.1455** | −0.1738** | −0.1415 | | −0.1410 | −0.1549 |
| | | (0.0738) | (0.0847) | (0.1863) | | (0.1002) | (0.1160) |
| $R^2$ | | 0.0822 | 0.1156 | 0.0842 | | 0.1298 | 0.1050 |
| No. of observations | | 2,178 | 1,306 | 872 | | 1,075 | 1,103 |

**Notes:** OLS regressions. Robust standard errors in parentheses. Dependent variable: number of search channels used. Additional control variables include sex, age, age$^2$, disability, marital status, employment status of partner, children, East Germany, educational attainment, vocational attainment, duration of last employment, unemployment benefits, state dummies, cohort dummies, time lag dummies, and country of birth; ***significant at 1 percent; **significant at 5 percent; *significant at 10 percent

**Source:** IZA Evaluation Dataset, wave 1, own calculations

marginalized natives have relatively low search intensity at the beginning of their unemployment spell.

*4.3 Reservation wages*

After studying the employment probabilities and the job search channels, we complement our analysis of the labor market reintegration of the unemployed in Germany by examining their reservation wages. Reservation wages embody critical information about the job search behavior of individuals as well as about their success in landing a job. More precisely, they represent the crucial threshold wage level above which a given unemployed person is willing to accept a job offer and stop searching for a new job. However, the key role of the reservation wage in job search theory is not adequately reflected in the empirical literature. The main reason for this lies in the scarcity of reservation wage information in datasets. There are still comparatively few empirical studies that directly incorporate reservation wages in their analysis (Constant and Zimmermann, 2005). Our dataset includes self-reported reservation wages, which we can directly incorporate in our analysis.

More specifically, respondents were asked the following questions regarding their reservation wage:

- "Now the focus turns to earnings expectations while searching for a job. How high do you expect your net monthly wage to be? How many hours per week would you at least have to work in order to receive this net monthly wage?"
- "Would you also be prepared to accept a job offer with a lower net monthly wage? And if so, what is the lowest net monthly wage you would be prepared to accept? How many hours per week would you at least have to work in order to receive this net monthly wage?"

The answers to these questions provide information about the individuals' reservation wages[10]. Moreover, we calculate the reservation wage ratio (RWR). This ratio is defined as the reservation wage at the time of the interview divided by the previous wage from (self-)employment before entering unemployment.

Table VI displays the average net hourly reservation wages and reservation wage ratios in our sample. The average reservation wage is €7.16, which corresponds to an 11

| | Natives and migrants | | Natives | | Migrants (1st gen.) | | Migrants (2nd gen.) | |
|---|---|---|---|---|---|---|---|---|
| | RW | RWR | RW | RWR | RW | RWR | RW | RWR |
| Total | 7.16 | 1.11 | 7.11 | 1.11 | 7.29 | 1.11 | 7.48 | 1.14 |
| Assimilation | 7.10 | 1.08 | 7.06 | 1.08 | 7.11 | 1.11 | 7.52 | 1.08 |
| Integration | 7.68 | 1.12 | 7.70 | 1.12 | 7.55 | 1.10 | 7.77 | 1.14 |
| Marginalization | 6.71 | 1.13 | 6.65 | 1.12 | 7.21 | 1.15 | 7.07 | 1.21 |
| Separation | 7.18 | 1.19 | 7.26 | 1.20 | 7.00 | 1.14 | 6.74 | 1.18 |
| No. of observations | 7,916 | 7,490 | 6,276 | 5,975 | 974 | 891 | 666 | 624 |

**Notes:** Net hourly reservation wage (RW) in Euros. The reservation wage ratio (RWR) is defined as the reservation wage divided by the previous hourly wage from (self-)employment before entering unemployment

**Source:** IZA Evaluation Dataset, wave 1, own calculations

**Table VI.**
Reservation wage (RW) and reservation wage ratio (RWR) by migration status and ethnic self-identification

percent increase compared to the previous wage. When we further differentiate by migration status, we observe the lowest reservation wages among natives, followed by first generation migrants. Second generation migrants' reservation wages are the highest, at almost €7.50. While the reservation wage ratio is similar for natives and first generation migrants, we observe a big increase compared to the previous wage for second generation migrants. We further differentiate individuals according to the four regimes of the ethnosizer. This reveals that for all three groups (natives, first and second generation migrants), integrated individuals have the highest reservation wages. However, as the reservation wage ratio indicates, this finding seems to be related to higher previous wages.

In contrast, while marginalized and separated individuals generally report relatively low reservation wages in absolute terms, these wages are relatively high when compared to previous wage levels. Similarly, the reservation wage ratios for assimilated individuals are generally low.

The overall picture thus suggests that assimilated and integrated individuals have relatively moderate wage aspirations once taking their previous wages into account. On the other hand, marginalized and separated individuals have relatively higher wage ambitions – at least among migrants[11].

We control for further characteristics in a number of regressions, in which we additionally include ethnic self-identification and the ethnosizer. In Table VII we present the results of these regressions. Note that the income from previous employment is also included in all regressions as a control variable.

When we include ethnic self-identification, we are again able to compare natives and migrants. Overall, it appears that reservation wages are significantly higher for integrated individuals (about 2.4 percent) when compared to assimilated job seekers. The reservation wages of marginalized individuals are virtually the same as in the reference group, while those of separated job seekers are higher, but not significantly different from zero. When analyzing natives and migrants separately, we find that the overall pattern applies only to natives. In this group, we also find significantly higher reservation wages for separated individuals when compared to assimilated job seekers. In contrast, separated migrants have substantially lower (but not statistically significant) reservation wages than the reference group. Therefore, the influence of ethnic self-identification on reservation wages appears to be very different between natives and migrants, at least with respect to separated job seekers. This can be explained by the fact that while for migrants a separated ethnic self-identity represents an orientation towards the country of origin, natives who ethnically self-identify as separated can be viewed as internationally-oriented and sophisticated individuals.

Our analysis of the influence of the two-dimensional ethnosizer on reservation wages focuses on migrants. Basically, we find a similar pattern for this group: the reservation wages of integrated individuals are significantly higher than those of assimilated job seekers, while they are lower (significantly lower) for separated (marginalized) individuals. Low reservation wages for separated and marginalized job seekers are particularly pronounced among women.

The overall picture from this analysis indicates that separated and integrated natives have significantly higher reservation wages than assimilated individuals. We also find significantly higher reservation wages of integrated migrants. On the other hand, however, the reservation wages of separated and, in particular, of marginalized migrants are lower than those of their assimilated counterparts[12].

| | Natives and migrants | Migrants | Migrants (1st gen.) | Migrants (2nd gen.) | Natives | Male individuals | Female individuals |
|---|---|---|---|---|---|---|---|
| *Ethnic self-identification* | | | | | | | |
| Assimilation | reference (reference) | reference (reference) | reference (reference) | reference (reference) | reference (reference) | reference (reference) | reference (reference) |
| Integration | 0.0241*** | 0.0191 | 0.0227 | 0.0127 | 0.0217** | 0.0277** | 0.0199 |
| | (0.0091) | (0.0177) | (0.0237) | (0.0274) | (0.0106) | (0.0117) | (0.0147) |
| Marginalization | −0.0011 | −0.0076 | −0.0051 | −0.0198 | 0.0024 | 0.0025 | −0.0052 |
| | (0.0080) | (0.0225) | (0.0292) | (0.0348) | (0.0086) | (0.0112) | (0.0114) |
| Separation | 0.0207 | −0.0352 | −0.0348 | −0.0320 | 0.0389** | 0.0025 | 0.0350* |
| | (0.0141) | (0.0284) | (0.0334) | (0.0545) | (0.0161) | (0.0185) | (0.0206) |
| $R^2$ | 0.3145 | 0.2957 | 0.3129 | 0.3360 | 0.3300 | 0.3666 | 0.2620 |
| No. of observations | 7,913 | 1,639 | 974 | 665 | 6,274 | 3,963 | 3,950 |
| *The ethnosizer* | | | | | | | |
| Assimilation | | reference (reference) | reference (reference) | reference (reference) | | reference (reference) | reference (reference) |
| Integration | | 0.0198* | 0.0178 | 0.0248 | | 0.0212 | 0.0091 |
| | | (0.0103) | (0.0133) | (0.0176) | | (0.0143) | (0.0141) |
| Marginalization | | −0.0245* | −0.0297* | −0.0226 | | −0.0219 | −0.0397* |
| | | (0.0126) | (0.0157) | (0.0235) | | (0.0149) | (0.0209) |
| Separation | | −0.0154 | −0.0141 | −0.0376 | | 0.0015 | −0.0400* |
| | | (0.0147) | (0.0166) | (0.0358) | | (0.0205) | (0.0235) |
| $R^2$ | | 0.2981 | 0.3158 | 0.3392 | | 0.3742 | 0.2831 |
| No. of observations | | 1,639 | 974 | 665 | | 805 | 834 |

**Notes:** OLS regressions. Robust standard errors in parentheses. Dependent variable: (logarithm of) net hourly reservation wages. Additional control variables include sex, age, age$^2$, disability, marital status, employment status of partner, children, East Germany, educational attainment, vocational attainment, duration of last employment, unemployment benefits, state dummies, cohort dummies, time lag dummies, country of birth, and (logarithm of) income from last employment; ***significant at 1 percent; **significant at 5 percent; *significant at 10 percent
**Source:** IZA Evaluation Dataset, wave 1, own calculations

**Table VII.**
Reservation wages of the unemployed, ethnic self-identification and the ethnosizer

## 5. Conclusions

This paper studies the labor market reintegration of the unemployed in Germany. We extend previous studies by employing the concept of a recently developed two-dimensional measure of ethnic identity, the ethnosizer, in the job-seeking process. While previous studies have shown that the ethnosizer as a measure of ethnic identity has substantial explanatory power regarding labor market outcomes, the ethnosizer has not been used in the unemployed job-seeking group. We are able to apply this concept to recently collected and rich survey data from the IZA Evaluation Dataset. We provide extensions in two dimensions:

- we focus on the unemployed and their labor market reintegration, as well as we study job search channels and reservation wages in relation to ethnic identity; and
- we are able to incorporate natives in parts of our analysis and provide unique comparisons with migrants.

Our results show significantly lower employment probabilities for separated natives and separated migrants. Among the latter, separated first generation mi-grants in particular are identified as a group with a relatively slow labor market reintegration. Further steps of our analysis are able to shed more light on the job search process which obviously precedes a successful reintegration into the primary labor market. Job seekers often rely on their social capital, as a repository of information. The larger and more robust the social network is, the faster they find a job, and the better the job is. More specifically, we analyze the number of job search channels used by the individuals (as an approximation of search effort), and the reservation wage as a crucial summary indicator of job search behavior and successful reintegration.

The subsequent part of our analysis reveals some indications for the mechanism through which our previous finding is channeled. Regarding the number of search channels used, our results suggest that marginalized and separated migrants exert substantially less effort in the first months after entering unemployment than assimilated or integrated migrants. On the other hand, we find evidence that marginalized natives also have a relatively low search intensity at the beginning of their unemployment spell. When analyzing reservation wages, we find that separated and integrated natives have significantly higher reservation wages than assimilated individuals. This result also holds for integrated migrants. However, the reservation wages of separated and, in particular, of marginalized migrants are lower than those of their assimilated counterparts. The latter finding clearly deserves further attention. Separated immigrants may set lower reservation wages because they have a lower social capital and thus a lower job arrival rate. Alternatively, changing frames of reference is a possible mechanism which may offer an explanation to the formation of reservation wages (Constant *et al.*, 2010).

We identify separated migrants as a group with a slower reintegration into the labor market, meaning that those who cling to their country of origin and disregard the host country's culture and norms are less likely to find a job and more likely to remain unemployed longer. We also find that next to marginalized migrants (i.e. those who are detached from either country), the separated group exerts relatively low search efforts. Taking into account the relatively lower reservation wages of both of these groups, one can argue the following: while marginalized migrants appear to lower their reservation wages adequately so as to compensate for a relatively low search effort (resulting in employment

probabilities similar to those of assimilated individuals), separated migrants have reservation wages that are set above the threshold level that could provide them with similar employment probabilities as the migrant groups in different ethnic identities states.

Our findings are also relevant from a policy perspective. It is a well-established fact that there is no "one size fits all" policy or "silver bullet" to quickly reintegrate the unemployed into the labor market. On the other hand, early interventions have proven to be a successful strategy. Therefore, such policies need to be implemented carefully and designed to fit the needs of particular sub-groups. Our results may help in designing such policies more effectively and efficiently, as they show that ethnic identity is an important characteristic in the process of job search and labor market reintegration. It is thus potentially very useful to take this factor into account when mapping out sub-group specific strategies – as in the case of strategies which may be based on economic preferences and attitudes of the unemployed (see Constant *et al.*, 2011).

This paper offers perspectives for various extensions. While we focus on a short period after individuals have become unemployed, an obvious next step would be to put our framework into a longer-term perspective – once the respective data become available. In addition, the job search process can be investigated in more detail. Besides the intensity of job search, analyzing the role of the various channels (e.g. active vs passive search, formal vs informal search) and the role of social networks is potentially very insightful. Finally, the effects of ALMP in the process of job search in the context of ethnic identity can be further explored.

## Notes

1. See Kahanec and Zimmermann (2009) for a comprehensive analysis of the consequences of east-west labor migration between the old and new EU member states.
2. Akerlof and Kranton (2002) study identity in economics, which they define as "a person's sense of self." Their theoretical framework shows that an individual's self-identification can be a powerful motivation for behavior.
3. An example of a representative household survey including such information is the GSOEP.
4. Individuals who were interviewed in a foreign language were automatically assigned the "no command" of the German language code.
5. Our dataset does not include the exact same questions as the GSOEP, which has been used so far to construct the ethnosizer. Therefore, we use a modified version and rely only on four elements; the element "culture" is not included here.
6. Note that our sample sizes, especially for migrants, are relatively small. This leads to imprecise estimates of the effects.
7. This reduces the number of observations in our sample because not everyone reports searching for employment since entering unemployment. We only include individuals who have been searching for a new job.
8. The number of different search channels may also be viewed as an approximation of available resources, or they may reflect expected job prospects. However, although we cannot rule out these alternative views, we argue that they should predominantly reflect the intensity of job search.
9. Note that if integrated individuals were the reference category, most of the differences between this group and the groups of marginalized and separated individuals would be statistically significant.

10. If both questions are answered, one can interpret response as the conditional expected wage and response and as the reservation wage (Lancaster and Chesher, 1983).
11. The relative wage aspirations of marginalized natives are comparable to their integrated and assimilated counterparts. We only observe relatively high wage aspirations for separated natives.
12. Note that if one compares integrated individuals with separated or marginalized ones, the differences are more statistically significant.

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## About the authors

Amelie F. Constant is the Executive Director of DIW DC in Washington DC and a visiting professor at the Elliott School of International Affairs at George Washington University. She is also the Vice Dean of the Graduate School at the German Institute for Economic Research (DIW Berlin) and the Deputy Program Director of Migration at the Institute for the Study of Labor (IZA Bonn). Her research is on migration in Europe and the US, including assimilation issues, immigrant entrepreneurship, ethnic identity, gender differences in labor markets, occupational mobility, risk attitudes, brain-drain, remittances, and the relationship between schooling quality and earnings. Her research has been funded by several foundations and has been published in many journals. Besides refereed papers, she has written many book chapters and co-edited books and special issues of journals.

Martin Kahanec is a Senior Research Associate, Deputy Program Director of Migration, the leader of program sub-area EU Enlargement and the Labor Markets and a former Deputy Director of Research at IZA Bonn. Since January 2010 he has been Assistant Professor at the Central European University in Budapest. His main research interests are labor and population economics, ethnicity and migration, and reforms in Central and Eastern European labor markets. His publications on these topics include articles in refereed journals, book chapters, as well as edited volumes and journal special issues. He has held several advisory positions and coordinated or participated in a number of scientific and policy projects.

Ulf Rinne studied economics at the University of Bonn and finished his doctoral studies in economics at the Free University of Berlin in July 2009. After joining IZA Bonn as a Resident Research Affiliate in August 2005, he became a Research Associate and Personal Advisor to the Director in January 2009. His research interests include labor and public economics, with an empirical focus on issues such as migration, human capital and education. Ulf Rinne is the corresponding author and can be contacted at: rinne@iza.org

Klaus F. Zimmermann is a Professor of Economics at Bonn University, Director of IZA Bonn, Honorary Professor of Economics at the Free University of Berlin, Honorary Professor at the Renmin University of China in Beijing, and the Chairman of the Society of the German Economic Research Institutes (ARGE). His current research interests are in migration, labor economics and population economics, with a particular focus on ethnicity and identity. He is a member of the German Academy of Sciences Leopoldina, Academia Europaea, has advised many national governments and the EU Commission, and is the author or editor of 37 books and 103 papers in refereed research journals and 124 chapters in collected volumes.