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## ABSTRACT

### **Ethnicity, Job Search and Labor Market Reintegration of the Unemployed<sup>\*</sup>**

This paper is based on recently collected and rich survey data of a representative sample of entrants into unemployment in Germany. Our data include a large number of migration variables, allowing us to adapt a recently developed concept of ethnic identity: the *ethnosizer*. To shed further light on the native-migrant differences in economic outcomes, we investigate the labor market reintegration, patterns of job search, and reservation wages across unemployed migrants and natives in Germany. Our results indicate that separated migrants have a relatively slow reintegration into the labor market. We explain this finding by arguing 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.

JEL Classification: F22, J15, J61, J64

Keywords: migration, ethnicity, ethnic identity, ethnosizer, unemployment, job search, reservation wages

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# 1 Introduction

Germany's migration history after World War II started during the post-war economic boom, in which the country focused on the recruitment of low-skilled foreign labor. Many of these 'guestworkers', who had arrived by 1973, settled and were joined by their spouses. Although many of them returned, today's group of second generation migrants mainly consists of their offspring. In the late 1980s and early 1990s, Germany experienced massive immigration flows of ethnic Germans from Eastern Europe. Afterwards, Germany also received a comparatively large number of humanitarian Migrants; and particularly after the enlargement of the European Union (EU) in 2004 and 2007, migration streams from Central and Eastern European countries have been substantial and increasing.<sup>1</sup>

Today's composition of migrants in Germany is therefore dominated by five groups of migrants: *a)* 'guestworkers' and their spouses, *b)* their offspring, *c)* ethnic Germans from Eastern Europe, *d)* recent immigrants from the EU and accession countries, and *e)* humanitarian migrants. While the labor market integration of foreign men is relatively favorable by international standards, migrant women have relatively low employment rates (Liebig, 2007). Furthermore, the situation of second generation migrants is generally a concern, as this group shows relatively low educational outcomes.

In many countries, migrants show higher unemployment rates, lower employment rates and lower earnings when compared to natives (see, e.g., Kahanec and Zajiceva, 2009). Therefore, the EU has identified migrants as a target group within its strategy to raise employment levels (Zimmermann, 2005). Germany can be considered 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 persons) had a migration background. Fewer than half of those are actually foreign citizens. Among children aged 5 and below, the share is even higher: around one third is descended 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 than of natives (18.1 percent 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).

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<sup>1</sup>See, e.g., Kahanec and Zimmermann (2009) for a comprehensive analysis of the consequences of east-west labor migration for the old and new EU member states.

There exist few studies for Germany that aim to explain the native-migrant differences in employment outcomes. An example for an earlier study is Mühleisen and Zimmermann (1994); more recent studies include Kogan (2004) and Uhendorff and Zimmermann (2006). The latter study, for instance, finds that unemployed migrants find less stable positions than natives with the same observable and unobservable characteristics. Moreover, migrants need more time to find these jobs. First and second generation Turks are identified as the group with the greatest problems in this context.

Culture has been shown to matter for labor market outcomes. Brügger et al. (2007) is a recent example of a study which analyzes the role of culture in shaping unemployment outcomes. Language borders in Switzerland are explored as an identification Strategy. Their results clearly show the importance of culture, as differences in this regard are found to explain differences in unemployment durations on the order of 20 percent. Therefore, culture seems to be as important as strong changes in the benefit duration.

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 sample of entrants into unemployment, we focus on their labor market reintegration, job search and reservation wages. We adapt a recently developed concept of ethnicity and ethnic identity—the *ethnosizer*. It distinguishes four states of ethnic identity: *a*) assimilation, *b*) integration, *c*) marginalization, and *d*) separation. Furthermore, we differentiate between two groups of migrants: *a*) migrants who are not German-born, and *b*) 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—also for natives, and to compare results in this regard with migrants.

Our results show that separated migrants (i.e., those not attached to the host country but rather strongly attached to their origin) have a relatively slow reintegration into the labor market. We also see that next to marginalized migrants, who are neither attached to Germany nor to their origin, separated migrants exert a relatively low search effort. Taking into account the relatively lower reservation wages of both of these groups, which are even lower among marginalized individuals, we therefore argue as follows: Whilst marginalized migrants lower their reservation wages adequately to compensate a relatively low search effort, separated migrants have reservation wages which are still above the level such that they would end up with similar employment probabilities as the migrant groups of different ethnic identity.

Our findings are also relevant from a policy perspective (e.g., to design sub-group specific early interventions in the unemployment spell).

The remainder of this paper is structured as follows: Section 2 describes the concept of the *ethnosizer* in context of ethnicity and ethnic identity. After giving an overview about the data in Section 3, we present our empirical analysis in Section 4. Finally, Section 5 concludes.

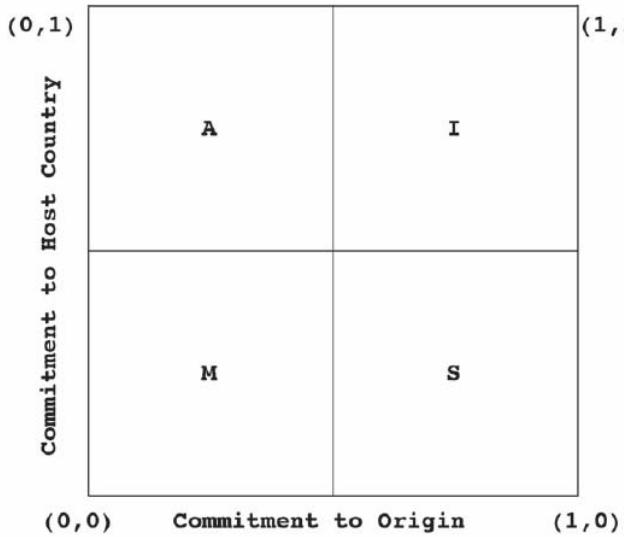
## 2 Ethnicity, Ethnic Identity and the *Ethnosizer*

What are the factors which 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 still a substantial fraction of the gaps remains unexplained with such approaches.

Recent economic research has brought up 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 performances. Theoretical arguments supporting this view can be found, e.g., in Darity et al. (2006). A cornerstone of their framework is the productivity of social interactions. We therefore apply a concept which is based on the observation that migrants experience a severe cultural shock upon arrival and differentiate between four separate states: *a*) assimilation, *b*) integration, *c*) marginalization, and *d*) separation. These states result from the migrants' struggle between keeping (or abandoning) the ethnic identity of their country of origin and adopting (or disregarding) the ethnic identity of their host country. See Figure 1 for a visualization of the concept.

In our analysis, we follow this line of research and apply the concept of the *ethnosizer* as described in Constant, Gataullina, and Zimmermann (2009). Their two-dimensional version considers information on commitments to both the host and home societies and cultures. Based on this information, the four separate states of ethnic identity can be distinguished. Studies supporting the relevance of ethnic identity—and of this particular concept—for economic outcomes include Zimmer-

Figure 1: The *Ethnosizer* as a Two-Dimensional Measurement of Ethnic Identity.



Source: Constant, Gataullina, and Zimmermann (2009).

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

mann (2007a,b) and Constant and Zimmermann (2009). These studies 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. The main findings of this line of research can be summarized as follows (Constant and Zimmermann, 2009): Assimilation and integration generally lead to positive economic outcomes, even though being assimilated does not necessarily lead to an advantage in the labor market compared to being integrated for men. For women, the probability of working is much higher when integrated than assimilated. The effects of separation and marginalization are negative. Ethnic identity is important for entering the labor market; but for subsequent earnings prospects it does not play a significant role.

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 affect significantly economic outcomes. However, it has been shown that the concept of the *ethnosizer* has explanatory power beyond labor market outcomes: Constant, Roberts, and Zimmermann (2009) present evidence suggesting that immigrants to Germany with 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.

### 3 Data

Our empirical analysis uses data from the *IZA Evaluation Dataset* (Caliendo et al., 2009). 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 the data is that a sizeable sample of individuals were interviewed shortly after entering unemployment. The respondents were interviewed again one year later.<sup>2</sup> The main advantage of the data is clearly the large variety of topics which are addressed: questions cover 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).

Another example—at the core of our interest—is ethnic identity. The importance and relevance of this concept is outlined above. The *IZA Evaluation Dataset* offers the unique opportunity to study the impact of this usually unobserved variable on economic outcomes focusing on the unemployed. Household surveys, which may contain similar information, are generally designed to be representative of the whole population.<sup>3</sup> 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.

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-)retire, and we exclude individuals with missing information on important characteristics. Our sample consists of 13,010 individuals, among those 2,641 with 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

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<sup>2</sup>Another round of interviews has not started yet. It is scheduled three years after the relevant entry into unemployment.

<sup>3</sup>An example of a representative household survey including such information is the German Socio-Economic Panel Study (GSOEP).

do not have German citizenship or their parents are neither German-born nor have German citizenship (second generation migrants).

Table 1 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 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 this group is married. Also regarding the educational and vocational attainment, the share of both first and second generation migrants with no formal degree is higher than among natives. However, first generation migrants also have a higher probability of having obtained the general qualification for university entrance, and a degree from a university or technical college than natives. The polarization of educational outcomes is therefore the highest in this group. With respect to previous employment, i.e., the employment before individuals entered unemployment and were interviewed, natives and second generation migrants previously earned higher net hourly wages than first generation migrants. However, the previous employment duration is on average the longest for natives (3.5 years), while first and second generation migrants report roughly the same duration (about 3 years). But altogether, the three groups of 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 sample, as we only take people who had entered unemployment and registered with the Federal Employment Agency.

Table 1: Descriptive Statistics (Selected Variables).

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

Source: IZA Evaluation Dataset, own calculations.

Note: 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.

To measure ethnic identity, we adapt the two-dimensional version of the *ethnosizer* (Constant, Gataullina, and Zimmermann, 2009). More specifically, we form the *ethnosizer* by combining and weighting together four essential elements of personal devotion to German culture and society and to the culture and society of origin: *a) language, b) ethnic self-identification, c) ethnic interaction, and d) migration history.*<sup>4</sup> We identify questions that transmit information on these principal ingredients of ethnic identity in our data. Table 2 presents the specific variables used for the measures for each classification by factor group. Note that although information on the elements is in general available only for migrants, we are also able to construct the measure of ethnic self-identification for natives.

Table 2: Four Elements of Ethnic Identity Composing the *Ethnosizer*.

	Availability
(1) <i>Language</i>	
German language skills	Migrants
Family language	
(2) <i>Ethnic self-identification</i>	
Self-identification with Germany	Migrants and Natives
Self-identification with country of origin	
(3) <i>Ethnic interaction</i>	
Language with friends—German	Migrants
Language with friends—other	
(4) <i>Migration history</i>	
Intention to apply for German citizenship	Migrants
Center of interest in 5 years (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.

A respondent with a ‘very good’ or ‘good’ command of the German language who communicates to his or her family members ‘only’, ‘mainly’ or ‘partly’ 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 ‘mainly’ in German is classified as linguistically assimilated; a respondent with ‘fair’, ‘bad’ or ‘no’ command of the German language who communicates to his or her family members ‘only’, ‘mainly’ or ‘partly’ in another language

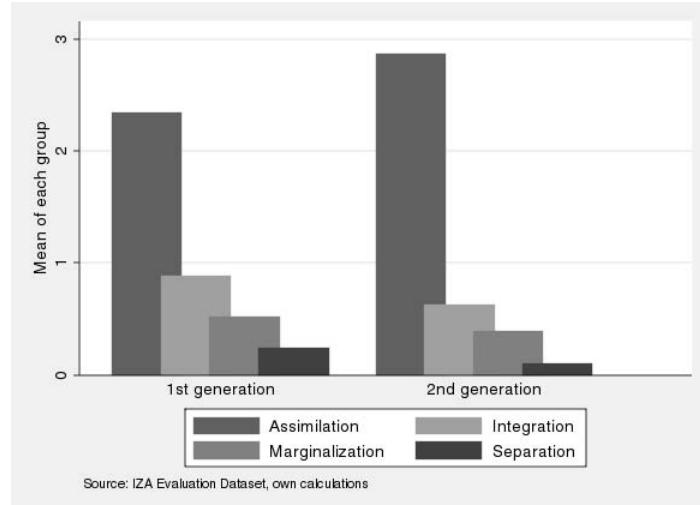
<sup>4</sup>Our data does not include exactly the same questions as the GSOEP, which has been used so far to construct the *ethnosizer*. Therefore, we use a modified version and rely only on four elements; the element “culture” is not included.

is classified as linguistically separated; and finally, a respondent with ‘fair’, ‘bad’ or ‘no’ command of the German language who communicates to family members ‘only’ or ‘mainly’ in German is classified as linguistically marginalized. Similarly, people who self-identify both strongly with Germany and with the country of origin are considered as integrated with respect to ethnic self-identification; people who self-identify strongly with Germany but to a smaller 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 but to a smaller extent with Germany are considered as separated with respect to ethnic self-identification; and finally, people who self-identify only weakly both with Germany and the country of origin are considered as marginalized with respect to ethnic self-identification. To construct this 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 for assimilation. Integration ranks second, while separation and marginalization have relatively low scores in both groups of migrants. This picture is even more pronounced for second generation migrants in our sample. Their score for assimilation is particularly high. Overall, the distribution across the four regimes reflects that the individuals in our sample had a relatively strong labor market attachment in the past.

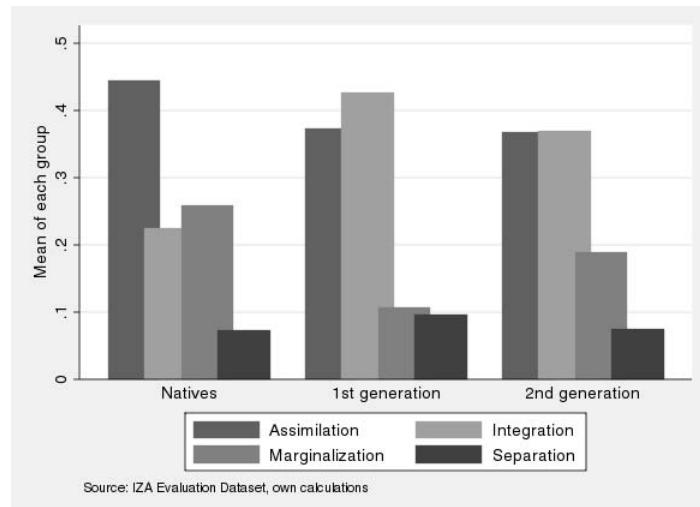
This impression is reinforced for one particular element of the *ethnosizer*, which we can also construct for natives: ethnic self-identification. For natives, self-identification with the country of origin is replaced by the attraction of cultures, customs and traditions of other countries. One can therefore think of integrated natives as individuals who show both a strong commitment to Germany but also to foreign countries and foreigners, and thus as people who also have a more internationally-oriented perspective. Assimilated, marginalized and separated natives are then classified accordingly. Figure 3 shows the distribution of ethnic self-identification by migration status. It appears that both migrants 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.

Figure 2: Two-Dimensional Ethnosizer by Migration Status.



Note: 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.

Figure 3: Ethnic Self-Identification by Migration Status.



Note: 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.

## 4 Empirical Analysis

Below we investigate the labor market reintegration, job search 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 became unemployed (Caliendo et al., 2009). We are thus able to focus on a very early stage of the respective unemployment spell. Importantly, we investigate both the *ethnosizer* and ethnic self-identity in our analysis. While the *ethnosizer* has already proven to be able to explain a larger fraction of the native-immigrant differences in labor market outcomes, it has so far not been applied with a focus on the unemployed. In addition, ethnic self-identification as one important element of the *ethnosizer* is available in our data for both migrants and natives. We are therefore able to compare the two groups in this part of our analysis.

### 4.1 Labor Market Reintegration

Roughly 20 percent of the individuals in our sample had already found unsubsidized (self-)employment when they were interviewed for the first time, see Table 3. An additional 4 percent are in subsidized forms of employment and roughly 3 percent can be considered as out of the labor force (education, apprenticeship or inactive). Therefore, about 73 percent are still unemployed or participate in active labor market policy (ALMP). When looking at the three groups of natives, first and second generation migrants separately, the raw descriptives do not show major differences with respect to the 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.

Table 3: Status at the First Interview.

	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
# Observations	13,010	10,369	1,586	1,055

Source: IZA Evaluation Dataset, own calculations.

Note: In percent.

Table 4 displays results of probit regressions in which we explain the probability of being employed at the first interview by ethnic self-identification and the *ethnosizer*, respectively, as well as other control variables.

Compared to assimilated individuals in terms of ethnic self-identification, all three other groups of individuals (integrated, marginalized and separated) show a slower reintegration into the labor market. In particular, 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, but the estimated marginal effect is no longer significantly different from zero when only migrants or first and second generation migrants are considered. Moreover, the results seem to be mainly driven by male individuals.

When we include the two-dimensional *ethnosizer* in our Analysis however, we find a slightly different picture: only separated migrants are found to be significantly less likely to be employed at the first interview when compared to assimilated individuals. Moreover, we find that this result is driven by first generation migrants, since no significant effects of the elements of the *ethnosizer* are found when we restrict our analysis to second generation migrants only. We do not observe major differences by gender.

Overall, it appears that separated first generation migrants who enter unemployment have a relatively slow reintegration into the primary labor market. When also including natives in our analysis, separated individuals in general, and sepa-

rated male individuals as well as natives are identified as the groups with substantially lower employment probabilities at the first interview.<sup>5</sup>

## 4.2 Channels of Job Search

Our previous results may be driven by different search strategies of the job seekers, which in turn may be influenced by their ethnic identity. We therefore look at the search channels individuals have used to find a new job. More specifically, we run regressions in which we include the number of different channels used as the dependent variable.<sup>6</sup> This approach is similar to the one employed in Holzer (1988), and Blau and Robins (1990); and one may interpret the number of channels as an approximation of the intensity of job search or the search effort which has been exerted. Both ethnic self-identification (available for both natives and migrants) as well as the *ethnosizer* are included in our analysis.

Figure 4 displays the distribution of the number of search channels used by natives and by first and second generation migrants. It appears that the distributions look very similar and almost identical. Therefore, we see some differences in search strategies; however to really understand them, we need to go beyond raw descriptives and control for further characteristics.

Once controlling for such characteristics, some notable results emerge, see Table 5. Its upper part displays our findings when we include ethnic self-identification as explanatory variable. It appears that marginalized individuals use significantly fewer search channels than assimilated individuals. This finding is driven by natives and second generation migrants, while it is not the case at all for first generation migrants. Among those, separated individuals use fewer, although not significantly fewer, search channels than assimilated persons. Among migrants, and both among first and second generation migrants, 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.

When we include the two-dimensional *ethnosizer* as an explanatory variable in our analysis of the number of search channels used (lower part of Table 5), we find a consistent result: both marginalization and separation are associated with a significantly lower number of search channels used to find employment. On the

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<sup>5</sup>Note that our sample sizes, especially for migrants, are relatively small. Therefore, standard errors are quite high and significance levels are not too high.

<sup>6</sup>This reduces the number of observations in our sample because not everyone reports to have been searching for employment since entering unemployment. We only include individuals who have been searching for a new job.

Table 4: Labor Market Reintegration of the Unemployed, Ethnic Self-Identification and the *Ethnosizer*.

		Ethnic Self-Identification					
		Natives and Migrants	Migrants (1st gen.)	Migrants (2nd gen.)	Natives	Male Individuals	Female Individuals
	reference (reference)	reference (reference)	reference (reference)	reference (reference)	reference (reference)	reference (reference)	reference (reference)
Assimilation							
Integration	-0.0123 (0.0084)	-0.0120 (0.0162)	-0.0067 (0.0213)	-0.0190 (0.0249)	-0.0091 (0.0100)	-0.0071 (0.0126)	-0.0159 (0.0108)
Marginalization	-0.0046 (0.0087)	-0.0105 (0.0215)	-0.0292 (0.0284)	0.0021 (0.0314)	-0.0040 (0.0096)	-0.0086 (0.0126)	-0.0020 (0.0116)
Separation	-0.0280** (0.0125)	-0.0336 (0.0238)	-0.0273 (0.0313)	-0.0351 (0.0373)	-0.0256* (0.0145)	-0.0331* (0.0188)	-0.0185 (0.0162)
Pseudo $R^2$	0.1266	0.1242	0.1547	0.1402	0.1343	0.1230	0.1501
# Observations	13,010	2,641	1,573	1,055	10,369	6,868	6,136

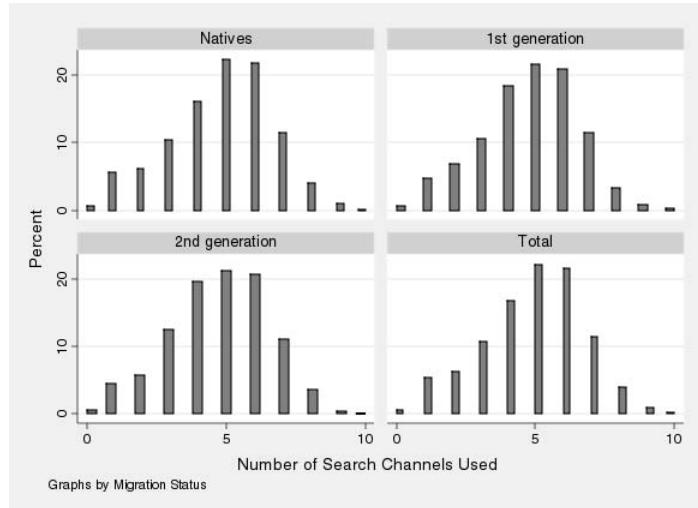
		The Ethnosizer					
		Natives and Migrants	Migrants (1st gen.)	Migrants (2nd gen.)	Natives	Male Individuals	Female Individuals
	reference (reference)						
Assimilation							
Integration	-0.0091 (0.0094)	-0.0119 (0.0119)	-0.0119 (0.0159)	-0.0090 (0.0159)	-0.0090 (0.0145)	0.0033 (0.0145)	-0.0182 (0.0120)
Marginalization	0.0085 (0.0113)	0.0114 (0.0138)	0.0092 (0.0204)	0.0092 (0.0169)	0.0072 (0.0169)	0.0172 (0.0143)	0.0172 (0.0143)
Separation	-0.0304* (0.01564)	-0.0340* (0.0183)	0.0063 (0.0328)	0.0063 (0.0328)	-0.0248 (0.0217)	-0.0248 (0.0217)	-0.0371 (0.0229)
Pseudo $R^2$	0.1256	0.1571	0.1395	0.1395	0.1473	0.1840	
# Observations	2,641	1,573	1,055	1,055	1,313	1,303	

Source: IZA Evaluation Dataset, own calculations.

Note: Probit regressions (marginal effects). Dependent variable: unsubsidized (self-)employment at the first interview. Additional control variables include sex, age, age<sup>2</sup>, disability, marital status, employment status of partner, children, East Germany, educational attainment, duration of last employment, unemployment benefits, state dummies, cohort dummies, time lag dummies, and country of birth.

\*\*\* significant at 1%; \*\* significant at 5%; \* significant at 10%.

Figure 4: Number of Search Channels Used by Migration Status.



Source: IZA Evaluation Dataset, own calculations.

Note: 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.

other hand, integration is associated with more search channels when compared to assimilation, although not significantly.

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 first and second generation) exert substantially less effort in the first months after entering unemployment than assimilated or integrated migrants. On the other hand, we also find evidence that marginalized natives also have a relatively low search intensity at the beginning of their unemployment spell.

### 4.3 Reservation Wages

After focusing on the employment probabilities and the channels of job search, we complement our analysis of the labor market reintegration of the unemployed in Germany by looking at the reservation wages of the unemployed. The reservation wage of unemployed individuals summarizes most of the relevant information about their search behavior. More precisely, it represents the crucial wage above which a given unemployed person is willing to accept job offers and stops searching for a new job. However, the key role of the reservation wage in search theory is not

Table 5: Job Search of the Unemployed, Ethnic Self-Identification and the *Ethnosizer*.

		Ethnic Self-Identification					
		Natives and Migrants	Migrants (1st gen.)	Migrants (2nd gen.)	Natives	Male Individuals	Female Individuals
		reference (reference)	reference (reference)	reference (reference)	reference (reference)	reference (reference)	reference (reference)
Assimilation		0.0268 (0.0443)	0.1715* (0.0889)	0.1228 (0.1167)	0.1891 (0.1423)	-0.0076 (0.0516)	0.0014 (0.0650)
Integration		-0.1054** (0.0443)	-0.0857 (0.1154)	0.0262 (0.1697)	-0.1730 (0.1685)	-0.1197** (0.0482)	-0.1209* (0.0637)
Marginalization		0.0096 (0.0701)	-0.0817 (0.1480)	-0.1543 (0.1847)	0.0249 (0.2653)	0.0359 (0.0797)	-0.0139 (0.0968)
Separation		0.0490 # Observations	0.0806 10,719	0.1124 1,306	0.0845 872	0.0491 8,541	0.0660 5,480
<i>R</i> <sup>2</sup>							
# Observations							

		The Ethnosizer					
		Natives and Migrants	Migrants (1st gen.)	Migrants (2nd gen.)	Natives	Male Individuals	Female Individuals
		reference (reference)	reference (reference)	reference (reference)	reference (reference)	reference (reference)	reference (reference)
Assimilation		0.0755 (0.0525)	0.0248 (0.0662)	0.1079 (0.0898)	0.0437 (0.0779)	0.1082 (0.0688)	
Integration		-0.1252** (0.0613)	-0.1280* (0.0746)	-0.1641 (0.1198)	-0.1149 (0.0884)	-0.1578* (0.0867)	
Marginalization		-0.1455** (0.0738)	-0.1738** (0.0847)	-0.1415 (0.1863)	-0.1410 (0.1002)	-0.1549 (0.1160)	
Separation		0.0822 # Observations	0.1156 2,178	0.0842 1,306	0.1298 872	0.1050 1,075	0.1050 1,103
<i>R</i> <sup>2</sup>							
# Observations							

Source: IZA Evaluation Dataset, own calculations.

Note: OLS regressions. Robust standard errors in parentheses. Dependent variable: number of search channels used. Additional control variables include sex, age, age<sup>2</sup>, disability, marital status, employment status of partner, children, East Germany, educational attainment, duration of last employment, unemployment benefits, state dummies, cohort dummies, time lag dummies, and country of birth.

\*\*\* significant at 1%; \*\* significant at 5%; \* significant at 10%.

adequately reflected in the empirical literature. There are still comparatively few empirical studies that directly incorporate reservation wages in their analysis. The main reason for this lies in the scarcity of adequate data sets; but our data include self-reported reservation wages, which we can directly incorporate in our analysis.

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

- a) 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?
- b) 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 answer to these questions gives us information about the individuals' reservation wage.<sup>7</sup> 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 6 displays the average net hourly reservation wages and reservation wage ratios in our sample. The average reservation wage is 7.16 euros, which corresponds to an 11 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 euros. Whilst the reservation wage ratio is similar for natives and first generation migrants, we observe also the highest increase compared to the previous wage for second generation migrants. We further differentiate individuals according to the four regimes of ethnic self-identification. This reveals that for all three groups, 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, whilst 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; whereas marginalized and separated individuals' wage ambitions are rela-

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<sup>7</sup>If both questions are answered, one can interpret response a) as the conditional expected wage and b) as the reservation wage (Lancaster and Chesher, 1983).

tively higher—at least among migrants.<sup>8</sup>

Table 6: Reservation Wage (RW) and Reservation Wage Ratio (RWR) by Migration Status and Ethnic Self-Identification.

	Natives and Migrants		Natives		Migrants (1st gen.)		Migrants (2nd gen.)	
	RW	RWR	RW	RWR	RW	RWR	RW	RWR
	7.16	1.11	7.11	1.11	7.29	1.11	7.48	1.14
Total	7.10	1.08	7.06	1.08	7.11	1.11	7.52	1.08
Assimilation	7.68	1.12	7.70	1.12	7.55	1.10	7.77	1.14
Integration	6.71	1.13	6.65	1.12	7.21	1.15	7.07	1.21
Marginalization	7.18	1.19	7.26	1.20	7.00	1.14	6.74	1.18
# Observations	7,916	7,490	6,276	5,975	974	891	666	624

Source: IZA Evaluation Dataset, own calculations.

Note: 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.

We control for further characteristics in a number of regressions, in which we additionally include ethnic self-identification and the *ethnosizer*. Table 7 displays the results of these regressions. Note that the income from previous employment is also controlled for.

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. 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 reservation wages than the reference group. Therefore, the influence of ethnic self-identification on reservation wages appears to be different between natives and migrants, at least with respect to separated job seekers. This can be explained with the fact that while for migrants a separated ethnic self-identity represents an orientation towards the

<sup>8</sup>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.

country of origin, natives who ethnically self-identify as separated can be viewed as internationally-oriented 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; whereas they are lower (significantly lower) for separated (marginalized) individuals. Low reservation wages for separated and marginalized job seekers are particularly pronounced among female individuals.

The overall picture thus indicates that separated and integrated natives have significantly higher reservation wages than assimilated individuals. We also find significantly higher reservation wages of integrated migrants. But on the other hand, the reservation wages of separated and, in particular, of marginalized migrants are lower than those of their assimilated counterparts.<sup>9</sup>

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<sup>9</sup>Note that if one compares integrated individuals with separated or marginalized ones, the differences are more significant.

Table 7: Reservation Wages of the Unemployed, Ethnic Self-Identification and the Ethnosizer.

		Ethnic Self-Identification											
		Natives and Migrants		Migrants (1st gen.)		Migrants (2nd gen.)		Natives		Male Individuals		Female Individuals	
		reference (reference)	reference (reference)	reference (reference)	reference (reference)	reference (reference)	reference (reference)	reference (reference)	reference (reference)	reference (reference)	reference (reference)	reference (reference)	reference (reference)
Assimilation		0.0241*** (0.0091)	0.0191 (0.0177)	0.0227 (0.0237)	0.0127 (0.0274)	0.0217** (0.0106)	0.0277** (0.0117)	0.0199 (0.0147)					
Integration		-0.0011 (0.0080)	-0.0076 (0.0225)	-0.0051 (0.0292)	-0.0198 (0.0348)	0.0024 (0.0086)	0.0025 (0.0112)	-0.0052 (0.0114)					
Marginalization		0.0207 (0.0141)	-0.0352 (0.0284)	-0.0348 (0.0334)	-0.0320 (0.0545)	0.0389** (0.0161)	0.0025 (0.0185)	0.0350* (0.0206)					
Separation		0.3145 # Observations	0.2957 7,913	0.3129 1,639	0.3360 974	0.3360 665	0.3300 6,274	0.3666 3,963	0.2620 3,950				
<i>R</i> <sup>2</sup>													
# Observations													
The Ethnosizer													
		Natives and Migrants		Migrants (1st gen.)		Migrants (2nd gen.)		Natives		Male Individuals		Female Individuals	
		reference (reference)	reference (reference)	reference (reference)	reference (reference)	reference (reference)	reference (reference)	reference (reference)	reference (reference)	reference (reference)	reference (reference)	reference (reference)	reference (reference)
Assimilation		0.0198* (0.0103)	0.0178 (0.0133)	0.0248 (0.0176)	0.0212 (0.0143)	0.0091 (0.0141)							
Integration		-0.0245* (0.0126)	-0.0297* (0.0157)	-0.0226 (0.0235)	-0.0219 (0.0149)	-0.0397* (0.0209)							
Marginalization		-0.0154 (0.0147)	-0.0141 (0.0166)	-0.0376 (0.0358)	-0.0015 (0.0205)	-0.0400* (0.0235)							
Separation		0.2981 # Observations	0.3158 1,639	0.3392 974	0.3392 665	0.3742 805	0.2831 834						
<i>R</i> <sup>2</sup>													
# Observations													

Source: IZA Evaluation Dataset, own calculations.

Note: OLS regressions. Robust standard errors in parentheses. Dependent variable: (logarithm of) net hourly reservation wages. Additional control variables include sex, age, age<sup>2</sup>, 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%; \*\* significant at 5%; \* significant at 10%.

## 5 Conclusions

This paper analyzes the labor market reintegration of the unemployed in Germany. We extend previous studies by adapting the concept of a recently developed two-dimensional measure of ethnic identity. While previous studies have shown that the *ethnosizer* as a measure of ethnic identity has substantial explanatory power regarding labor market outcomes, we are able to apply this concept to recently collected and rich survey data which are part of the *IZA Evaluation Dataset*. Thereby, we are able to provide extensions in two dimensions: *a*) we focus on the unemployed and their labor market reintegration, search channels and reservation wages; and *b*) we are able to incorporate natives in parts of our analysis.

Our results show significantly lower employment probabilities for separated natives and separated migrants. Among the latter, separated first generation migrants 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 proceeds a successful reintegration into the primary labor market. More specifically, we analyze *a*) the number search channels used (as an approximation of search effort), and *b*) the reservation wage as an important summary indicator of search behavior.

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 results also holds for integrated migrants. On the other hand, the reservation wages of separated and, in particular, of marginalized migrants are lower than those of their assimilated counterparts.

We thus identify separated migrants as a group with a slower reintegration into the labor market. We also see that, next to marginalized migrants, this group exerts relatively low search effort. Taking into account the relatively lower reservation wages of both of these groups, one can argue as follows: While marginalized migrants lower their reservation wages adequately to compensate a relatively low search effort (resulting in employment probabilities similar to those of assimilated individuals), separated migrants have reservation wages which are still above the level such that they would end up with similar employment probabilities as the migrant groups with different ethnic identities.

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 “magic bullet” to quickly reintegrate the unemployed into the labor market. On the other hand, early interventions have proven to be a successful strategy. However, 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 characteristics 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.

This paper offers perspectives for various extensions. While we focus on a short period after individuals have become unemployed, it is an obvious next step to put our framework into a longer-term perspective—once the respective data become available. Additionally, the job search process can be investigated in more detail. Next to 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 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.

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