

# Feeling Austrian? Ethnic Identity and Economic Outcomes

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**Abstract.** This paper assesses if feeling Austrian promotes economic outcomes of migrants. For this purpose we use the Austrian Immigrant Survey and construct a one-dimensional Ethnosizer to measure the sense of belonging of migrants in Austria. As OLS regressions show that feeling Austrian is particularly relevant for the economic outcomes, i.e. wages, of female migrants, we employ Kitagawa-Oaxaca-Blinder to decompose the wage difference between genders. Although employed migrant women have more favourable characteristics than men, they earn less because these characteristics - especially feeling Austrian - are remunerated differently by the labour market. From this we conclude that integration policies have an important gender component that needs to be addressed by policy makers in order to improve the economic situation of female migrants.

**Keywords:** Economic Outcomes · Migration · Gender · Wages · Ethnosizer

## 1 Introduction

The relationship between ethnic identity and economic outcomes of migrants has attracted more attention in economic research in recent years (e.g. Carillo et al. 2021; Piracha et al. 2021; Cai and Zimmermann, 2020; Casey and Dustmann, 2010; Nekby and Rodin 2010; Constant et al. 2009). This evolving strand of literature aims to understand the dynamics of social and economic inclusion in multicultural societies. Ethnic identity, defined as a sense of belonging or attachment to a particular ethnic group can significantly impact individuals' economic behaviour, job opportunities and labour market outcomes. Investigating this relationship is particularly important for policymakers seeking to foster social cohesion, reduce economic disparities and promote inclusive economic growth.

We investigate this relationship in the Austrian context. Austria is a nation characterised by a diverse demographic landscape with various ethnic populations as well as a vibrant migration past and present. Austria's ethnic diversity presents an opportunity to examine the impact of ethnic identity on economic outcomes in a heterogeneous setting. At the same time, hegemonic structures, defined as dominant social, cultural and economic systems that reinforce power imbalances play a significant role in the context of ethnic identity and economic outcomes. The hegemonic structures prevalent in Austria can exacerbate the challenges faced by individuals from minority ethnic backgrounds as they may perpetuate discrimination, unequal access to opportunities and labour market outcomes, thereby hindering the economic integration and upward mobility of certain ethnic groups. Moreover, hegemony influences societal perceptions and stereotypes associated with specific ethnic groups. Preconceived notions about the productivity, skills, or qualifications of individuals from particular ethnic backgrounds can lead to labour market segmentation and occupational segregation. Such discrimination may result in lower labour income and limited career advancement for certain ethnic groups as well, even when they possess similar qualifications and experience as their majority counterparts (Weichselbaumer 2017). These economic disadvantages can be particularly pronounced for women from certain ethnic backgrounds. Exploring the relationship between ethnic identity and labour market outcomes and within this context, studying the role that hegemonic structures play in exacerbating economic disparities enriches our understanding of how ethnic identity influences labour income and integration prospects. Addressing these complex dynamics is essential for fostering a cohesive and equitable society where individuals from all ethnic backgrounds can thrive economically and socially. Thus, our analysis focuses on that very aspect.

We exploit the Austrian Immigrant Survey 2016 that includes migrants from Turkey and former Yugoslavian countries, the two largest groups of migrants in Austria. Our aim is to explain differences in

economic outcomes by ethnic identity in Austria. Specifically, we ask three research questions:

1. Which factors explain income differences between migrants?
2. Does feeling Austrian promote economic outcomes?
3. Repeating questions 1. and 2., is there a difference between male and female migrants in terms of their identification with Austria, their economic outcomes and the explainable factors of their economic outcomes?

Methodologically, we first construct a so-called 'one-dimensional Ethnosizer' as proposed by Constant et al. (2009). It comprises five components, where each captures a sphere of ethnic identity. The five components of such a one-dimensional Ethnosizer consider language, culture, interaction, self-identification and migration history. Combined, these components make up the one-dimensional Ethnosizer, where a lower value indicates a stronger identification with Austria, its culture, language, etc. Our analysis investigates whether the strength of ethnic identification with Austria, i.e. feeling Austrian as measured by the one-dimensional Ethnosizer, determines economic outcomes on the labour market and whether gender differences exist. This is done by employing basic OLS regression analysis as well as Kitagawa-Oaxaca-Blinder decomposition.

Our results show that across all migrants, feeling Austrian does not result in better economic outcomes. Age, gender and higher education are much more relevant characteristics. However, when we split our sample and take a closer look at female migrants, we do find significant income differences between women with higher and lower scores in the Ethnosizer. It can be derived from this finding that migrant women face stronger economic disadvantages on the Austrian labour market dependent on their subjective ethnic identity associated with Austria, and in turn, integrational measures, particularly in the sphere of language advancement, seem to matter more for female migrants when looking at economic outcomes as compared to men. Our finding stresses the prevalent discrimination faced by women on the Austrian labour market and underscores the importance to focus on integration measures that tackle language barriers for women when integrating in Austria and on the Austrian labour market.

## 2 Literature Review

The relationship between ethnic identity and economic outcomes, particularly labour income, has raised significant scholarly attention. This review of the existing literature synthesises findings from studies exploring this interplay, both globally and within Austria, shedding light on factors shaping economic integration. Studies employing the Ethnosizer framework and those examining broader implications of ethnic identity on labour market success are included as well.

The exploration of the relationship between ethnic identity and economic outcomes is a multifaceted and evolving field of research. While it's challenging to pinpoint the very first academic paper on this topic, there are several pioneering works that laid the foundation for studying this relationship. Some of the earliest influential papers is the one by Chiswick (1978 & 1982) who analyses how "Americanization", a process involving language acquisition and cultural adaptation, influences the earnings of foreign-born men in the United States. Similarly, Borjas (1985) examines the relationship between ethnic assimilation, measured by English language proficiency and the earnings of immigrants in the United States. Although not focused solely on ethnic identity, it provides insights into how cultural factors may affect economic outcomes. In 1995, Chiswick & Miller (1995) further investigate the endogeneity between language proficiency and earnings among immigrants. The authors delve into how language acquisition relates to economic outcomes, a key aspect of cultural integration. These early papers laid the groundwork for the subsequent research on ethnic identity and economic outcomes. While not all of them directly use the term or concept of "ethnic identity", they contributed to understanding the complex relationship between cultural assimilation, language proficiency, and economic success among immigrants.

One of the first studies that explicitly deals with the concept of ethnic identity is the paper by Phinney (1992) titled "The Multigroup Ethnic Identity Measure: A New Scale for Use with Diverse Groups".

The paper outlines that ethnic identity is a multifaceted construct that encompasses various dimensions, such as self-identification, a sense of belonging, and the importance of ethnic heritage. While *ethnicity* refers to a group's shared cultural, linguistic, or ancestral heritage, often characterised by common traditions, customs, and historical experiences, *ethnic identity* involves an individual's subjective and personal connection to their ethnic group, encompassing how they perceive themselves in relation to that group and the significance they attribute to their ethnicity. The concept of ethnic identity in our paper relates to Phinney's definition thereof, i.e. by ethnic identity we mean the extent to which an individual feels attached to or identifies with a certain ethnic group.

To that extent, the most important academic work for our framework of analysis is the paper "Ethnosing Immigrants" by Constant et al. (2009). The authors introduce the concept of the one-dimensional Ethnosizer, a comprehensive index capturing different dimensions of ethnic identity, such as language, culture, interaction, self-identification, and migration history. This framework offers a quantitative measure to assess the strength of an individual's ethnic identity<sup>3</sup> and its potential impact on various economic outcomes, including labour income. The concept of the one-dimensional Ethnosizer introduced by the authors is employed in our empirical analysis. Constant et al. (2009) employ their one-dimensional Ethnosizer in their analysis using data from the German Socio-economic Panel for 2001. While their study focuses mainly on identifying the driving factors that compose the Ethnosizer (the five subcategories language, culture, interaction, self-identification and migration history), they do find that stronger ethnic identity is associated with lower labour earnings among migrants. Specifically, they conclude that a stronger attachment to the home country's language, culture, and community is correlated with lower earnings in the host country's labour market. Moreover, they find that immigrant women exhibit stronger ties to their native ethnic identity compared to men due to a more limited connection to Germany in terms of language, culture, and ethnic self-identification. Catholics adopt a more robust host country identity, driven by extensive social interactions with Germans. Muslims maintain substantial linguistic and cultural ties to their ethnicity but show less ethnic influence in migration history and express a desire for permanent residence in Germany. Other Christian and non-Christian religious groups also demonstrate an ethnic identity more aligned with Germans in interactions and migration history. Incomplete or completed schooling in the home country contributes to greater ethnic adherence and resistance to adjustment. Conversely, higher education in the home country correlates with increased interaction with Germans, stronger willingness to remain in Germany, and deeper self-identification with the host country. Overall, all ethnic groups display lower Ethnosizer levels than Turks, who exhibit a pronounced Turkish ethnic identity. This trend extends to cultural affinity, social interactions with co-ethnics, and migration history components.

Several empirical studies have explored the correlation between ethnic identity and economic or employment outcomes. Algan et al. (2010) study the labour market outcomes of first and second-generation immigrants in France, Germany, and the United Kingdom. The authors find that second-generation immigrants generally experience improved labour market performance compared to their first-generation counterparts, indicating that ethnic identity's impact on labour income might diminish across generations. Likewise, the paper by Bisin et al. (2011) examines the relationship between ethnic identity and labour market outcomes among immigrants in Europe. The empirical findings suggest that there is a strong connection between ethnic identity and economic performance. Specifically, immigrants who display a greater affinity towards their ethnic identity tend to experience lower labour market success, including reduced employment probabilities and earnings. However, this effect is lower for the second-generation immigrants.

In Germany, Constant et al. (2006) and Zimmermann et al. (2007) investigate the link between identity categories (integration, assimilation, separation, and marginalisation) and employment probability. While finding no systematic differences between assimilated and integrated men, disparities emerge among assimilated and integrated women, favouring the latter. Additionally, the studies reveal that individuals who are separated and marginalised, regardless of gender, experience significantly lower employment probabilities. Therefore, identifying with the majority culture may enhance employment opportunities. Constant and Zimmermann (2007) investigate the measurement of ethnic identity and its impact on economic be-

<sup>3</sup> We follow the definition of ethnic identity as proposed by Constant et al. (2009). They 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 achieved by an individual after migration." (Constant et al. 2009, p. 6).

haviour. Their empirical findings reveal that a strong ethnic identity, as measured by the one-dimensional Ethnosizer framework, is associated with lower labour force participation rates and earnings, indicating potential challenges in labour market integration. Moreover, the study highlights that the impact of ethnic identity on economic behaviour varies based on factors such as gender, age, and education. Casey and Dustmann (2010) examine identity formation and its connection to labour outcomes in Germany, observing a transmission of ethnic traits between generations.

Nekby and Rödin (2010) analyse cultural identity and employment in Sweden, finding modest disparities between integrated and assimilated identities, with more significant gaps for those with a separated identity, primarily among men.

In the UK, Piracha et al. (2021) show that higher levels of social assimilation, as measured by factors such as language proficiency and social interactions, are associated with improved labour market outcomes, including higher employment rates and earnings. Additionally, Dustmann et al. (2011) prove for British data that a stronger ethnic identity can have both positive and negative effects on economic outcomes. Specifically, immigrants who exhibit a stronger attachment to their ethnic background may experience reduced labour market participation and lower earnings. However, the study also finds that a higher degree of ethnic attachment may positively influence self-employment, particularly among female immigrants.

For China, Cai and Zimmermann (2020) find that a higher degree of social assimilation, reflected in aspects like marriage to locals and proficiency in local dialects, is positively associated with improved labour market outcomes. Migrants who are more socially integrated tend to have higher employment rates and earnings. Carillo et al. (2021) reach a similar conclusion for an Italian dataset. Overall, these studies indicate that identifying with the majority culture is vital for labour market success, while the degree of connection to cultural background appears less influential. Although these analyses consider "subjective" identity measures, other literature (Meng and Gregory, 2005; Chiswick and Houseworth, 2008; Bisin et al., 2009b; Furtado and Theodoropoulos, 2009) examines "objective" measures like intermarriage, friendships, fertility rates, and gender gaps, revealing penalties for ethnic minorities with strong identities in terms of employment and earnings.

For Austria, the existing research documenting the relationship between ethnic identity and economic outcomes is rather scarce. To the best of our knowledge, the only paper that asks a related research question is the one by Haindorfer and Haller (2021) titled "Does Citizenship Promote Integration? An Austrian Case Study of Immigrants from Former Yugoslavia and Turkey". Using the same database as we do in our analysis, the Social Survey Austria (SSÖ) 2016, the authors investigate whether acquiring Austrian citizenship enhances the economic and social integration of immigrants from former Yugoslavia and Turkey. The research focuses on labour market participation, language proficiency, and social interactions as dimensions of integration. The findings indicate that acquiring Austrian citizenship indeed has a positive impact on the integration of immigrants. Immigrants who become Austrian citizens tend to exhibit higher levels of labour market participation, better language proficiency in German, and increased social interactions with Austrian citizens. These effects are more pronounced for immigrants from former Yugoslavia compared to those from Turkey. The research underscores the positive role of citizenship in fostering labour market participation, language proficiency, and social interactions among immigrants, thereby promoting their overall integration into Austrian society.

Aside from this particular study, the research that investigates economic outcomes of migrants in Austria mainly documents the labour market outcomes or educational attainment of immigrants, controlling for various factors such as migration status (first or second generation), age, gender, parental education etc. (e.g. Hofer et al 2017; Grandner & Gstach 2015; Böck-Schappelwein et al. 2022). However, to the best of our knowledge, there exists no study that investigates economic outcomes of migrants with respect to their ethnic identity.

Overall, the literature on the relationship between ethnic identity and labour income underscores the complex interplay between social identity, economic integration, and individual economic outcomes. While some evidence suggests that the impact of ethnic identity on labour income may diminish across generations, other studies reveal potential challenges faced by immigrants with strong ethnic identities. In the context of Austria, research on labour market outcomes of first and second-generation migrants provides

valuable insights into the dynamics of economic assimilation and calls for targeted policies to promote inclusivity and reduce disparities based on ethnic backgrounds. Yet, the existing evidence for Austria that deals with the impact of ethnic identity on labour market outcomes is scarce, which calls for further research in order to derive policies aimed at erasing economic disadvantages and unequal opportunities for migrants in Austria and to improve upon according integration strategies.

### 3 Data

The data used for the underlying analysis stems from an additional survey module to the Social Survey Austria (SSÖ) 2016, named Austrian Immigrant Survey (AIS) (Bacher et al. 2021). The available data on AUSSDA website combines the observations of the Social Survey Austria and the Austrian Immigrant Survey 2016 in one dataset – however, due to our specific research purposes, only the Austrian Immigrant Survey 2016 can be used for the analysis. The advantage of this data set is that it includes questions about ethnic identity, language skills, social contacts, etc. The main disadvantage is the fact that there exists no weighting for the target groups of the SSÖ survey, thus, our entire analysis is based on unweighted data.

The dataset consists of 600 individuals between the age of 17 and 91. After cleaning the dataset and selecting those individuals that are employed and at the age between 15-64, we obtain a dataset with 310 observations.

Our dependent variable "economic outcome" is measured by monthly net income. A shortcoming of the dataset is that the income variable was made available as categorical rather than as a continuous variable. Since we are also interested in the gender dimension, we use hourly net income to account for differences in working time. While almost all men in our dataset work full-time, the share among women is less than half. These statistics closely resemble the true shares of all employed men and women in Austria, with roughly half of all women working part-time and around 90 percent of men working full-time (Statistik Austria 2023b). The average hourly income in our dataset ranges between EUR 2.43 and EUR 35.19 with an average of EUR 10.29. The average hourly net income of women is below that of men, with EUR 9.25 and EUR 11.12 respectively.

In the survey only respondents from former Yugoslavian countries and Turkey were included. In 2016, the former were the largest group of migrants in Austria in terms of both country of birth and citizenship, followed by Germans and Turks (Statistik Austria 2023a). The share of the two groups in the data set is balanced at 50% each. Women are less likely to participate in the labour market. More than one in four women surveyed cannot be included in our analysis to study wage differences. Turkish women are less likely to work than women from former Yugoslavian countries with one out of three not being employed. While the gender ratio is almost balanced for people from the former Yugoslavia, two thirds of individuals from Turkey in our dataset are male.

Table 1: Summary statistics

	N	Mean	St. Dev.	Min	Max	Share
Hourly net income	310	10.29	4.49	2.42	35.19	
Ethnosizer	310	0.31	0.18	0.00	0.88	
Age	310	39.89	11.01	17	64	
Female	310					44.6%
Former Yugoslavia	310					49.8%
Tertiary Education	310					13.9%
Vienna	310					27.4%
Married	310					73.2%
Children	310					28.1%
Citizenship	310					60.6%

In addition to the Ethnosizer we include gender, country of origin, age and dummies for completed tertiary education, residency in the capital Vienna, Austrian citizenship, for children in the household as well as the marital status in our model. These characteristics are summarised in table 1. Higher age and higher levels of education are typically associated with higher income. Also wages in urban areas tend to

be higher. While married men with children often show better economic outcomes, the opposite is the case for women since they are more likely to reduce working hours or even leave the labour market for care work. Based on the results by Haindorfer and Haller (2021) we expect individuals with Austrian citizenship to perform better economically than third country nationals.

### The one-dimensional Ethnosizer

To test our hypothesis that migrants who feel a greater sense of belonging to Austria achieve better labour market outcomes, we need to operationalise the measure of belonging. For this purpose we use the concept of a one-dimensional Ethnosizer as proposed by Constant et al. (2009), who present this quantitative measure of an individual's ethnic identity. The Ethnosizer consists of five distinct components, each capturing a different aspect of ethnic identity. These components collectively contribute to the construction of a single index (Ethnosizer) that measures the strength of an individual's attachment to their ethnic identity. The five components are:

- **Language:** This component assesses an individual's language proficiency. In our dataset, we observe the respective German skills of individuals in understanding (listening) and reading levelled from 1 to 5 (1 being the highest skill level and 5 being the lowest). The average of the two makes up the "language" component of the Ethnosizer.
- **Culture:** The cultural component gauges an individual's engagement with their ethnic group's cultural practices, traditions, and values. This dimension captures how much an individual identifies with and participates in the cultural aspects of their ethnic background. The "culture" dimension arguably encompasses many different aspects, which is why it is not possible to obtain just one true measure of cultural engagement in general. Moreover, the availability of sufficient responses to questions relating to engagement with the Austrian culture (or with the culture of origin) in the underlying dataset is very limited. Therefore, we are left to include the only variable in the dataset that is remotely related to the cultural aspect and that has sufficient responses. The variable "news" measures to what extent a respondent informs his/herself about Austrian news or news from the country of origin. Arguably, this variable should be interpreted with a grain of salt, as the intensity to which an individual engages or is interested in Austrian news is a rather far-fetched proxy for capturing "cultural engagement". Nonetheless, it gives us some idea about the tendencies of an individual's engagement with what is happening in either Austria or in the country of origin, which is why we chose to include the variable to make up the "culture" part of the Ethnosizer.
- **Interaction:** This aspect measures an individual's social interactions with members of their own ethnic group and the broader society. It considers the extent to which an individual associates with others from similar or different ethnic backgrounds, reflecting the level of social integration. In our dataset, we can observe the origin of people that the respondent engaged with during the last 2 weeks (at survey point in time), i.e. whether the social contacts of a respondent are either mostly Austrians or mostly people of other origin.
- **Self-Identification:** The self-identification component evaluates how strongly an individual personally identifies with an ethnic group. In this dataset, respondents are asked to indicate whether they feel more associated with their country of origin or with Austria, i.e. to what extent they identify as Austrian or not.
- **Migration history:** This component takes into account an individual's migration history, including factors such as generation status (first or second generation) and the duration of residence in the host country. It acknowledges the dynamic nature of ethnic identity across different stages of migration. As we use variables such as duration of residence or migration generation status as control variables in our analysis, a different measure - target country - is included to represent the dynamics of migration as part of the Ethnosizer. Respondents in the SSÖ are asked to indicate whether they intend to 1) stay in Austria, 2) move back to their country of origin or 3) move to another country in the future. This variable is used to make up the "migration" part of the Ethnosizer.

To obtain the one-dimensional Ethnosizer the unweighted mean of the five sub-indices is taken, transformed into values between 0 and 1 and so, the Ethnosizer ultimately ranges between 0 and 1, where a lower score indicates a stronger attachment to the Austrian ethnic identity, and a score closer to 1 indicates a stronger attachment to the country of origin.

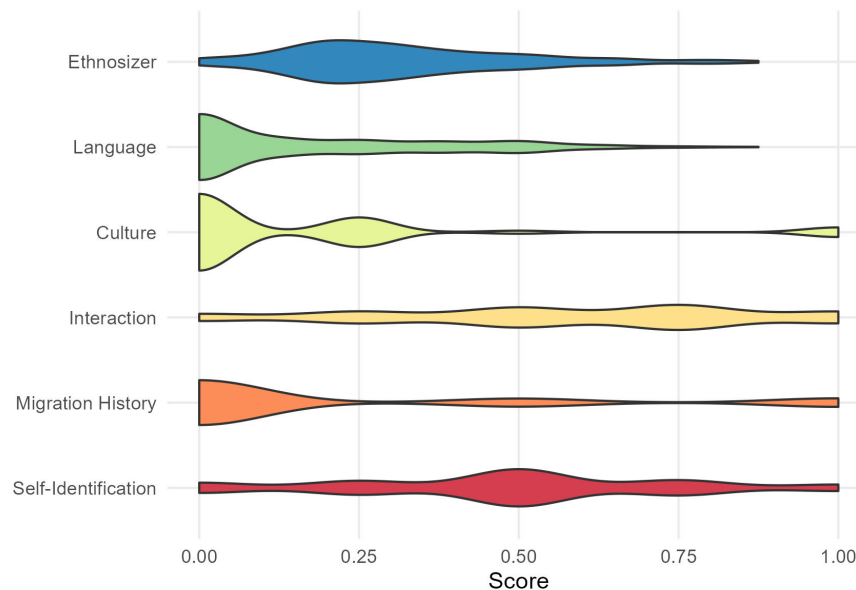
By integrating these five components into a single Ethnosizer index, Constant et al. (2009) offer a multi-dimensional approach to quantifying ethnic identity. Not only does the Ethnosizer concept quantify ethnic identity, it also provides a more nuanced understanding of the interplay between ethnic identity and economic outcomes, thereby recognising that ethnic identity is not a binary variable but rather a multi-dimensional construct.

Table 2: Average scores of Ethnosizer and its subcategories

	<b>Ethnosizer</b>	<b>Language</b>	<b>Culture</b>	<b>Interaction</b>	<b>Migration History</b>	<b>Self-Identification</b>
<b>Total</b>	<b>0.31</b>	<b>0.15</b>	<b>0.16</b>	<b>0.57</b>	<b>0.20</b>	<b>0.48</b>
Male	0.33	0.17	0.15	0.56	0.25	0.50
Female	0.30	0.13	0.16	0.59	0.14	0.46
<b>Turkish</b>	<b>0.38</b>	<b>0.21</b>	<b>0.20</b>	<b>0.63</b>	<b>0.32</b>	<b>0.53</b>
Male	0.38	0.21	0.19	0.61	0.35	0.53
Female	0.38	0.21	0.23	0.67	0.25	0.54
<b>Ex-Yugoslavian</b>	<b>0.25</b>	<b>0.09</b>	<b>0.11</b>	<b>0.51</b>	<b>0.09</b>	<b>0.43</b>
Male	0.25	0.11	0.10	0.48	0.12	0.46
Female	0.24	0.07	0.12	0.54	0.07	0.41

Table 2 depicts the average value of the Ethnosizer in our sample as well as the subcategories that make up the Ethnosizer, by gender and by country of origin. On average, respondents score 0.3 in the Ethnosizer, which means that in general they feel a greater sense of belonging to Austria rather than to their country of origin. Female migrants display a slightly higher degree of belonging, particularly women from Ex-Yugoslavian countries. However, in the dimensions “culture” and “interaction” men’s orientation towards the host country is stronger. The average score of the one-dimensional Ethnosizer as well as its components is considerably lower for migrants from Ex-Yugoslavian countries. The distribution of the scores is displayed in figure 1 below.

Fig. 1: Distribution of the one-dimensional Ethnosizer and its components



## 4 Methodology

We employ statistical analysis to assess the relationship of economic outcomes of migrants and their ethnic identity (Ethnosizer). First, we use correlation analysis and OLS regressions (ordinary least squares) to assess the relationship between the one-dimensional Ethnosizer and wages. Our model takes the following form:

$$\log(y_i) = \beta_i X + \epsilon_i \quad (1)$$

where  $\log(y_i)$  is the logarithm of hourly income,  $\beta_i$  the coefficients,  $X$  the matrix with the independent variables including age, sex, tertiary education attainment, dummy variables indicating if the person lives in the capital Vienna, is married and if there are children in the household, the country of origin, and the Ethnosizer.  $\epsilon_i$  denotes the error term.

The second step of our analysis involves Kitagawa-Oaxaca-Blinder-decompositions - a model that is particularly valuable when studying differences between groups. Kitagawa (1995) was the first to use this methodology in her studies on demography. Oaxaca (1973) and Blinder (1973) subsequently adopted this decomposition technique to study differences in wages.

The aim of this decomposition model is to explain the difference in the means of the dependent variable (in our case net wages) between two groups. The groups we look at in our analysis are migrant men and women. The difference in mean net wages is decomposed into two parts: an explained part and an unexplained part. The former is the wage difference that can be traced to differences in the explanatory variables, for example, to differences in age and levels of education between the two groups. The underlying idea is to assess how high wages of individuals in the second group would be, if they had the same characteristics as members of the first group. The unexplained part describes the differences in coefficients between the two groups, e.g. that higher educational achievements are rewarded stronger for one group than for the other. It is often referred to as "discrimination", as the different treatment of the groups cannot be explained by the observed characteristics of the individuals. Here, the underlying question is how wages of the second group would change, if they were threatened the same way according to their characteristics as the first group. However, the effect of unobserved variables that are not included in the model might be reflected in the unexplained part as well.

The decomposition analysis is based on linear regression as indicated in equation (1). This regression is run for both groups separately. The difference in mean net income  $\Delta \log(\bar{y})$  can be written as:

$$\Delta \log(\bar{y}) = \hat{\beta}_B \bar{X}_B - \hat{\beta}_A \bar{X}_A = (\bar{X}_B - \bar{X}_A) \hat{\beta}_A + \bar{X}_B (\hat{\beta}_B - \hat{\beta}_A) \quad (2)$$

Where the first term is the explained part due to differences in group characteristics and the second term the so-called unexplained part ("discrimination"). For a detailed derivation of the equations see Fortin et al. (2011). In our analysis we use the R package *oaxaca* by Hlavac (2014).

## 5 Results

At first glance, the correlation between hourly net wages and ethnic identity measured by the Ethnosizer is rather weak. When estimating the OLS model for the whole data set we again do not find any significant effect of the Ethnosizer (see Table 5 column (1) in the annex). Since we are also interested if the different sub-indices have heterogeneous effects, we also estimate our regression including the subindices instead of the aggregated Ethnosizer (column (2)). The only sub-index that shows a coefficient significantly different from zero is *language*. The poorer migrants' German skills are, the lower their wages. This result seems plausible, since German language skills are required for the vast majority of better-paid occupations.

To test if ethnic identification plays a different role for men and women, we include an interaction term for the Ethnosizer and gender. The rendered result is very interesting: While the coefficient for the Ethnosizer measuring ethnic identity remains insignificant for men, we find a negative relationship for female migrants. This means that in Austria, the extent of identification with the host country is only relevant for the income of women. Other relevant factors for hourly net income in our model are *age* and *higher*



*education.*

Since we observe a noticeable difference between men and women, we perform a decomposition analysis by sex. The difference in mean hourly net income between migrant men and women is EUR 1.87. So female migrants in our sample earn 17 % less than male migrants. Moreover, the decomposition analysis shows that EUR -0.36 of the wage difference can be explained by the model and EUR 2.22 remain unexplained. This means that if women were remunerated according to their characteristics in the same way as men, they would actually have higher hourly wages on average.

On average, employed female migrants are older and are more likely to have completed tertiary education. The fact that women tend to be the more highly educated sex is in line with what we observe in Austria overall as well as in other developed countries. Additionally, women have, on average, a stronger self-identification with Austria than men and are more likely to originate from former Yugoslavian countries. All these factors except for the country of origin are associated with higher incomes.

Table 3: Comparison of the mean value of the characteristics

	Age	Tertiary Educ.	Ex-Yugoslavia	Citizenship	Ethnosizer
Men	38.7	0.10	0.42	0.51	0.33
Women	41.4	0.19	0.60	0.72	0.30

Table 3 summarises the results of the decomposition analysis. The first column shows the explained part which is the share of wage difference that can be explained by the difference in characteristics as displayed in table 3. If the characteristics of men and women were equal, the difference in the logarithm of wages would decrease by 0.037.

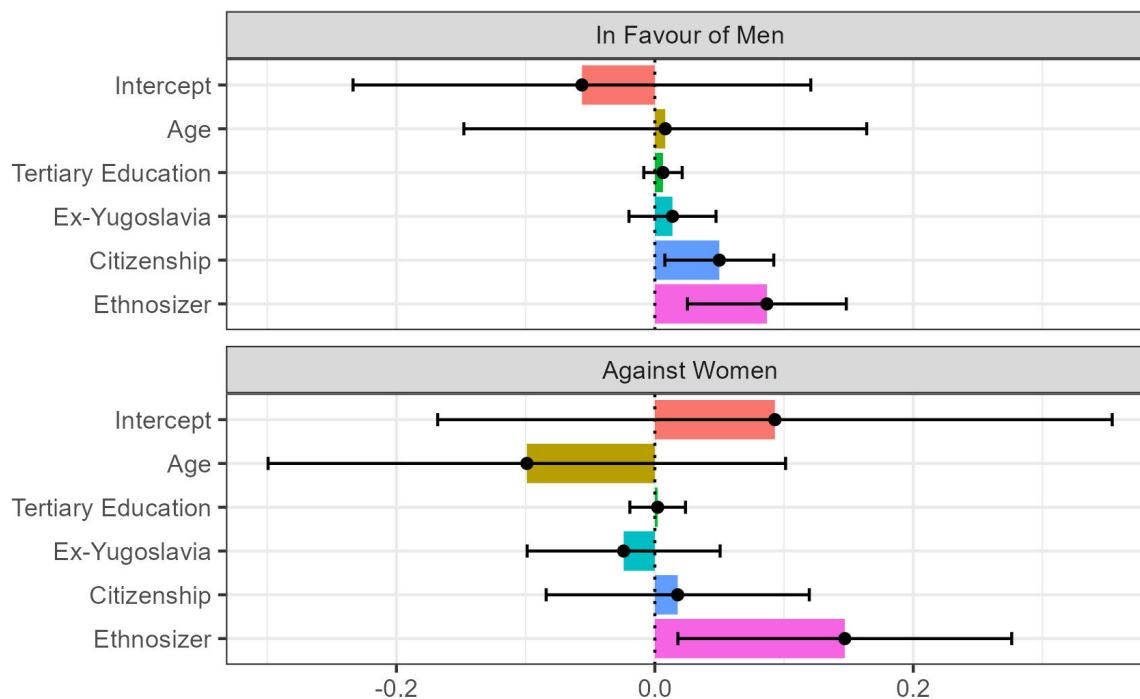
The part that cannot be explained and that is due to differences in coefficients is shown in column 2 of table 4. This effect is much higher and pushes the difference in hourly wages to EUR 2.22. The difference in coefficients quantifies how characteristics are differently remunerated for male and female workers. It can be further decomposed in the slightly larger part of EUR 1.22 that stems from discrimination against migrant women and EUR 0.97 that can be attributed to a positive discrimination towards male migrants. The last two columns in table 4 show the "discrimination" in favour of men and against women. The one-dimensional Ethnosizer shows its effect in two ways. First, it poses a wage penalty for women, so women who feel less Austrian earn lower wages. The opposite is the case for male migrants. For men with a weak extent of belonging, we measure positive discrimination that results in higher wages. Additionally, Austrian citizenship is associated with higher income for male migrants (see also figure 2).

Table 4: Kitagawa-Oaxaca-Blinder Decomposition

	Dependent variable log(hourly net income)			
	Explained	Unexplained	Unexplained (in favour of men)	Unexplained (against women)
Total	-0.037	0.245	0.108	0.137
	0.019	0.042	0.020	0.024
Intercept	0.000	0.365	-0.056	0.093
	(0.000)	(0.184)	(0.082)	0.125
Age	-0.008	-0.911	0.008	-0.099
	(0.006)	0.619	(0.076)	(0.099)
Tertiary Education	-0.027	0.009	0.006	0.002
	(0.011)	0.017	(0.007)	(0.011)
Former Yugoslavia	0.002	-0.010	0.014	-0.024
	(0.009)	(0.051)	(0.017)	(0.038)
Citizenship	-0.002	0.068	0.050***	0.018
	(0.010)	(0.068)	(0.021)	(0.051)
Ethnosizer	-0.002	0.234	0.087***	0,147***
	(0.005)	(0.085)	(0.032)	(0.063)

It can be concluded that - despite the fact that female migrants have more favourable characteristics, they still have lower labour incomes because these characteristics are valued and remunerated differently on the labour market.

Fig. 2: Kitagawa-Oaxaca-Blinder Decompositions: disaggregation of the unexplained part



## 6 Discussion and conclusion

In our paper, we address the question of whether a stronger sense of belonging to Austria translates into better economic outcomes for migrants. We instrument “feeling Austrian” with the one-dimensional Ethnosizer consisting of 5 components (language, culture, interaction, migrant history, self-identification). Our analysis shows that belonging to Austria does not have a positive effect on the labour income of men, but it does for women. Accordingly, migrant women who feel more attached to Austria than to their home country have higher wages. One of the most important components here is language ability. This also enhances other components of our Ethnosizer, for example, it is easier to consume Austrian media and make Austrian friends if one speaks the national language.

What do these results imply for the Austrian setting and which policy recommendations can we derive for policymakers? First and foremost, integration is a process that only works well if both sides are committed. It is not only the migrants’ task to assimilate in their new home country, thereby getting a sense of belonging to Austria, but also the government’s task to support this process. Our results show that integration policies also have an important gender component. Employed female migrants feel slightly more Austrian than male migrants as they score lower in our one-dimensional Ethnosizer. However, feeling Austrian is remunerated very differently by employers and - among other effects - translates in poorer economic outcomes for women. Therefore, policy makers need to develop concepts to enable better integration and participation, particularly for migrant women.

One important policy area is language promotion. Our results show that within the Ethnosizer, language is the most important factor for economic success. The provision of publicly available and free of charge

language courses that are compatible with full-time employment and covering different levels of proficiency is an important measure that is currently insufficiently implemented in Austria.

Another important part of gaining a sense of belonging to a country is the experience migrants make with locals. Racist and discriminatory incidents hamper integration. In Austria, the media and politicians often convey a negative image of migrants, implying a hierarchy between migrants, according to which migrants from the north are preferred to those from the south. Likewise, not every language is "valued" equally compared to another, meaning not every language is seen as an asset. This is most clearly seen when it comes to the assessment of language diversity where only western or northern European mother tongues such as French, Spanish, Italian, German or Scandinavian languages are seen as enrichment (Küçükterkin 2021).

An indicator that is easier to measure is the prevalent disadvantage in the legal system. For example, recent reforms of the child benefit and the social assistance aimed at limiting the access of migrants to the welfare system (Atzmüller et al. 2020). Additionally, the acquisition of citizenship is highly restrictive in Austria (Vink and Bauböck 2013). Barriers to citizenship are not conducive to integration, as political participation rights enhance people's sense of belonging (e.g. Ferwerda et al 2020).

Promoting the integration of migrants is one side of the coin. Limiting discrimination between locals and migrants as well as between men and women is the second important policy aim. Although the Equal Treatment Act (Gleichbehandlungsgesetz) prohibits discrimination in the workplace, disadvantagement is generally difficult to prove. More transparency in wages as well as decision making in the recruitment process can help create equal opportunities and limit precarious and unfavourable working conditions of migrants as well as women.

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**Annex**

Table 5: OLS Regression results

<i>Dependent variable: log(hourly net wage)</i>			
	(1)	(2)	(3)
Age	0.043*** (0.015)	0.045*** (0.015)	0.042*** (0.015)
Age <sup>2</sup>	-0.0005*** (0.0002)	-0.001*** (0.0002)	-0.0005*** (0.0002)
Tertiary education	0.326*** (0.059)	0.319*** (0.059)	0.310*** (0.059)
Vienna	0.013 (0.048)	0.015 (0.048)	0.019 (0.048)
Married	-0.023 (0.060)	-0.006 (0.060)	-0.019 (0.060)
Children	-0.007 (0.051)	-0.015 (0.051)	-0.016 (0.050)
Ex-Yugoslavia	0.072 (0.048)	0.047 (0.049)	0.053 (0.048)
Citizenship	0.075 (0.047)	0.056 (0.047)	0.065 (0.047)
Ethnosizer	0.016 (0.132)		0.193 (0.148)
Language		-0.348*** (0.123)	
Culture		-0.007 (0.076)	
Interaction		0.033 (0.075)	
Migration history		0.052 (0.065)	
Self-Identification		0.105 (0.088)	
Female	-0.278*** (0.043)	-0.278*** (0.043)	-0.077 (0.088)
Ethnosizer*Female			-0.639*** (0.244)
Constant	1.411*** (0.282)	1.328*** (0.285)	1.369*** (0.280)
Observations	310	310	310
R <sup>2</sup>	0.205	0.230	0.223
Adjusted R <sup>2</sup>	0.179	0.194	0.195
Residual Std. Error	0.354 (df = 299)	0.351 (df = 295)	0.351 (df = 298)
F Statistic	7.734*** (df = 10; 299)	6.305*** (df = 14; 295)	7.793*** (df = 11; 298)

*Note:*

\*p&lt;0.1; \*\*p&lt;0.05; \*\*\*p&lt;0.01