Migration Paper

Do Differences in the Pace of Life Contribute to an Explanation of Migrants' Labor Market Participation

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Abstract

Pace of life is something that is acquired at a fundamental level of the individual, difficult to change and that is producing cultural patterns. In this paper, we set out to analyze whether a misfit in match in the pace of life between individual and society affects labor market outcomes. A mismatch may contribute to an explanation for migrants' comparatively worse labor market participation. We use the German Socio-Economic Panel (G-SOEP), which contains the data of first- or second-generation immigrants to Germany since 1994. We compare different gaps in pace of life between home country and Germany. We find evidence that differences in the pace of life may contribute to our understanding of migrant labor market participation.

Keywords

Pace of life, labor market participation, migration, time perception, integration

1 Introduction

In many countries, migrants are subject to higher unemployment rates, as well as lower wages, compared to natives (see, e.g., Kahanec and Zaiceva, 2009). Concerning labor market integration, Germany can be considered a particularly interesting example as it has received large migration flows over a long period. In 2017, 23.6% of the German population (or 19.3 million people) declared to have a migration background (Destatis, 2018). About 68.4% of these inhabitants migrated themselves (first generation) whereas the other third was characterized as second- or third-generation immigrants, meaning that they were born in Germany.

Previous empirical studies report an employment gap between migrants and natives. For the most part, they discuss how said gap can be reduced (Li et al., 2008; Kahanec and Zaiceva, 2009). Research also highlights the enormous heterogeneity in labor market participation and labor market outcomes related to gender, ethnicity, age of arrival in the host country, and human capital in general (Aguilera, 2002; Mayrhofer et al., 2004; Csedő, 2008; Elo et al., 2015; Koopmans, 2016). Even after controlling for factors such as education and gender, the migration employment gap still exists (Adsera and Chiswick, 2007; Algan et al., 2010; Belzil and Poinas, 2010; Uhlendorff and Zimmermann, 2014; Elo et al., 2015; Krause et al., 2015; Brenke and Clemens, 2017). Hence, the gap may be explained by two possible factors: (1) The integration of migrants into the labor market depends on the perceptions of the employer towards migration in general and the specific migrant in particular (Mahmud et al., 2014). Local employers may discriminate against migrants, resulting in lower employability and lower wages as Kaas and Manger (2012) highlight. Discrimination is even more prevalent when applicants show visible signs of being Muslim (Connor and Koenig, 2015). (2) Migrants may also deviate from natives in terms of human capital or adherence to social norms in the current environment. Factors, such as cultural attitudes, may also explain employment gaps (e.g., Antecol, 2000; Fernández et al., 2004; Knowles and Postlewaite, 2005; Alesina et al., 2013; Lundborg 2013; Frank and Hou, 2016).

In this paper, we focus on the second possible explanation, even though we are aware that the first explanation may also hold true. We propose that a certain cultural difference based on perceptions of time, namely the pace of life, distinguishes locals from migrants. The pace of life describes an inherited social-psychological construct that is like other cultural attributes acquired through intergenerational transmission. In a nutshell, the pace of life describes the pace of a society, e.g., how fast or slow people in a given society work, walk, and how

accurately their clock is set (Levine and Norenzayan, 1999). Moreover, it describes which tempo is perceived as slow and which as fast. Research on pace of life in countries suggests, that the mean pace among populations in different countries considerably differs (Levine et al., 1980; Levine and Norenzayan, 1999), indicating that some nations are characterized by a slow pace of life while others have a fast pace of life. With respect to migration, individuals may live and work in a country with a faster, equal, or slower pace of life as with what they are accustomed from their country of upbringing. Hence, the pace of life can be regarded as a cultural dimension, which is learned at a primary and fundamental level. Accordingly, it is hard to change these cultural patterns (Levine and Norenzayan, 1999). A mismatch between the early familiarized origin country's pace of life and that in the host country may have profound consequences, and such discrepancies are difficult to overcome. In this paper, we focus on the effect of asynchronistic paces of life between migrants and the German pace of life. We analyze whether parts of the migration-employment gap can be explained by the gap between the migrants' pace of life and the German pace of life.

The remainder of our paper is structured as follows: First, we discuss existing research of migration and labor market integration, especially with respect to cultural differences as one essential approach. Second, we review previous literature on the pace of life, especially highlighting the connection between the pace of life and economic outcomes. Subsequently, we present our methods and test whether differences in labor market integration among migrants can be explained by differences in the early familiarized origin country's pace of life and the host country's pace of life. Finally, we discuss our findings and conclude.

2 Migration and labor market participation

The labor market integration of migrants has been a widely discussed issue in the European Union as many European countries experienced a peak in net migration in 2015 (Destatis, 2016). Additionally, at the end of 2016, the Federal Statistical Office of Germany reported that 10.0 million inhabitants hold only foreign citizenship. This is the highest number of foreigners assessed since the Central Register of Foreigners (AZR) was established in 1967 (Destatis, 2017).

Many countries experience migration and they rely on migrants as a workforce because demographic changes result in a limited supply of native workers (Brenke and Clemens, 2017). Moreover, extensive research on the explanation of migration flows and migration policies is

still being conducted (e.g., Afonso and Devitt, 2016). Hence, it is of utmost importance to understand which factors affect labor market integration in order to improve labor market participation. We therefore need to understand why employment gaps between migrants and natives exist in the first place (Kahanec and Zaiceva, 2009). Previous literature suggests that, to a certain extent, discrimination by employers (e.g., Belzil and Poinas, 2010; Kaas and Manger, 2012; Uhlendorff and Zimmermann, 2014), human capital differences (Adsera and Chiswick, 2007; Algan et al., 2010), and a lack of social networks and culture may explain the differences. In the study at hand, we add pace-of-life mismatches as another piece to this puzzle. In the following, we will focus especially on previous literature regarding social adaptation and integration, as well as cultural differences. However, we are aware that the aspects mentioned before also influence the labor market participation of migrants.

Social adaptation and integration

Aside from an improved opportunity to become fluent in the host countries language, early migration may also improve the migrants' understanding of cultural values and attitudes. Over the past years, research has been conducted in career capital, which includes individual economic capital, social capital, human capital, and especially cultural capital (Mayrhofer et al., 2004).

In scientific discourse, social human capital terms the existence of personal networks in a country. Aguilera (2002) investigates the relationship between friendship networks and labor participation and emphasizes a positive effect by demonstrating that social ties improve labor market participation of migrants after controlling for race, ethnicity, and gender. Lancee (2012) finds that being acquainted with natives in a host country can have benefits regarding access to labor market positions. This access would not be available with an ethnically homogenous social surrounding in the host country (bonding ties). Koopmans (2016) also points out that social contact with natives (social capital) is related to a lower unemployment risk and consequently, positively related to labor market participation.

Moreover, scholars found that the length of stay in a country is of importance. Adsera and Chiswick (2007) argue that the immigrant–native earning gap closes after approximately 18 years in the host country. Chiswick and Miller (2015) also find that the performance level regarding the host-country language, as well as scholastic performance, depends largely on the length of stay in the host country (i.e., the age at immigration). Furthermore, Martinovic et al. (2009) highlight that, on average, social integration increases with the length of stay and that

ethnicity, migration motives, and home country education are influential factors in integration. All in all, ample evidence suggests that higher social human capital in the host country is reflected by higher employment chances and occupational status (Lancee, 2012; Koopmans, 2016).

Cultural differences and their influence on labor market outcomes

Apart to social ties, this stream of literature also analyzes cultural adaptation of migrants. Lamont et al. (2014) focus on processes contributing to the explanation of social inequality by highlighting two types of cultural processes: racialization and stigmatization for identification, on the one hand, and standardization and evaluation for rationalization, on the other. They propose that cultural processes are often a function of deeply ingrained organizational and bureaucratic routines that diverge from the beliefs and desires of individuals. Therefore, not only behavioral habits but also collectively enacted and cognitive-affective habits may stay in the center of conceptualization.

Koopmans (2016) assumes that labor market participation of migrants is functioning properly as long as sociocultural assimilation to labor market outcomes is provided. Hence, gaps depend on the cultural differences between the country of origin and the host country. However, there is no consensus in literature if these gaps can be minimized or completely eliminated (see, e.g., Venturini and Villosio, 2008; Beyer, 2016; Confurius et al., 2019; Kislev, 2019; Vijaya, 2020). Beyer (2016) partly confirms this notion and finds that labor market participation fully converges after 20 years in the host country. Vijaya (2020) further supports this by showing that refugee women even tend to surpass the labor force participation rate of native-born in the US.

On the contrary, Venturini and Villosio (2008), as well as Amuedo-Dorantes and de la Rica (2005), detect no assimilation process regarding employment for immigrants. Simón, et al. (2008) examine the wage distribution of immigrant and native-born individuals in Spain and find variation in the wage distribution according to the place of origin. Similarly, Confurius et al. (2019) highlight that the conventional human capital model does not account for much of the disparity between immigrants and natives. They recommend further investigating the society of origin or the operation of norm images and ethnic concentration which could impede mobility. Moriconi and Peri (2019) analyze whether the preference for work in the country of origin still affects the probability of employment in the country of residence by controlling for all observable individual characteristics as well as parental background. In some cultures,

working hard and being successful at work is seen as a virtue whereas others focus on enjoyment and leisure. Accordingly, they focus on country-specific labor-leisure preferences and employment rates of adult males. Their results suggest country-specific labor-leisure preferences, which explain about 24% of the variation in employment rates across migrants in European countries.

In the last decade, research has found profound evidence for the relevance of culture for migrations' labor market participation. Fernández et al. (2004), as well as Alesina et al. (2013), for instance, show that role models and interpretating such roles in the social environment during childhood largely affect the economic outcomes of a generation. They highlight that values which are familiarized early through cultural traits and familial behavior patterns, determine further life. An ample example is that male children who are growing up with an employed mother are familiar with the concept of working women and tend to eventually choose an employed wife, as well. In this case, the probability of the wife having a job increases by 32 percentage points (Fernández et al., 2004). Furthermore, Knowles and Postlewaite (2005) researched imprinted behavior, which is transferred from parents to children. Their results indicate that parents' frugality encourages children to behave similarly. This suggests a transfer of preferences, which is an important aspect for further research in this study.

Moreover, Fernández (2007) research cultural norms and economic outcomes regarding women's participation in the labor market, particularly focusing on the labor supply of females. He highlights the significant effects that female labor market participation and the living conditions in the women's respective country of origin have. The more conservative a woman's country of origin, the less likely she is to participate in the labor market after migration. These results are supported by Frank and Hou (2016), who emphasize that immigrant women who previously worked in their home country have higher labor market participation rates in the host country because of the skills and experiences they gained in this regard, i.e., work experience and knowledge of which qualifications are needed to return to employment. Kislev (2019) identifies an improvement in economic indicators over time and generations for Western European immigrants. However, no improvement in social indicators was detected.

A substantial body of research has already been compiled regarding the role of culture in shaping labor market outcomes. Lundborg (2013), for instance, finds worse adjusted unemployment rates for the first two decades in host country when migrants display significant differences in cultural and ethical background. Brügger et al. (2009) highlight that differences

in unemployment durations can also be explained by differences in culture. They expand the literature of vertical transmission (an individual's culture that is transmitted from their families) from Fernández and Fogli (2006) and Fernández (2007) by adding horizontal transmission (the culture of an individual's peers carried over through social interaction, social networks, or social norms). In this regard, they determine that the horizontal transmission of culture is twice as important as vertical transmission concerning the explanation of unemployment duration.

Antecol (2000) researches differences in the gender gap in labor force participation rates by comparing home country groups in the United States. He discovers that the labor force participation in the host country depends on initial values, which are deeply ingrained in the country of origin. These findings emphasize the factor of culture (different attitudes toward family structure and the role of women in the labor market), which cannot be acquired through human capital measures since it is an initial value. Moreover, he highlights lower labor market participation rates for second- and higher-generation migrants in comparison to natives, which indicates a very slow process of cultural assimilation. This, in turn, underlines the concerns of cultural mismatches of migrants' host labor market participation.

3 Pace of life and economic outcomes

Culture as such is a very vague concept and not directly linked to labor market integration. However, one possibly crucial aspect of cultural mismatch are the different perceptions of time, i.e., what is perceived as too slow or too fast. Scholars assume that different cultural environments are characterized by different perceptions of time (Levine, 1997; Levine and Norenzayan, 1999). This also includes punctuality, i.e., what range of untimeliness or delay is socially acceptable. Other factors apart from punctuality, divided in clock time and event time (Levine and Norenzayan, 1999; White et al., 2011), are past, present, and future orientation (Zimbardo and Boyd, 1999), as well as the perception of time efficiency, which vary for different cultures.

When focusing on the objective perception of time, individuals can also face mismatches between their personal pace of life and cultural norms, to which they cannot easily adapt. In our study, we are particularly focusing on the "pace of life" index from Levine and Norenzayan (1999). In this index, they capture the perception of time in different countries by measuring the average use of time. The study unearths remarkable differences between countries. To measure different paces of life, Levine and Norenzayan (1999) examine three indicators: (1)

the average walking speed (which was measured over a distance of 60 feet in downtown locations in each considered city), (2) the working speed (which measured the time it took postal workers to complete a simple request), and (3) the clock accuracy (which measured 15 public clocks in selected downtown banks). On this basis they compare the impact of the pace of life from 31 countries. They find close relationship between the pace of life and each country's emphasis on individuality, both influenced by population size and economic success, as well as people's characteristics and cultural values. This claim can be further verified by the fact that Western Europe held the fastest pace of life whereas then non-industrialized countries in Latin America or Asia demonstrated the slowest (Levine and Norenzayan, 1999).

Lowin et al. (1971) provide a basis for these findings by investigating the pace of time, especially the sensitivity of time in urban and rural settings. They state that urban inhabitants have a higher sensitivity for time and a faster-paced life. Similarly, Bornstein and Bornstein (1976) analyze the walking speed of fifteen cities in North America, Asia, and Europe and find that pace of life changes according to the number of inhabitants in the city. Levine et al., (1980) and Levine and Bartlett (1984) also gather evidence of higher punctuality and walking speed in economically developed countries such as the United States or Japan, as well as in big cities. Such result demonstrate that faster-paced places often experience higher economic outcomes and wealth, faster perceptions of time and are, therefore, associated with a faster pace of life (Levine and Norenzayan, 1999). Bettencourt et al. (2007) support this line of reasoning by considering growth, innovation, and the pace of life in growing cities. They link the pace of life with collective economic outcomes, such as economic prosperity, by highlighting that increases in wealth and knowledge creation require an adjustment in the pace of life. On another note, Brislin and Kim (2003) find that faster paces of life are indeed related to higher economic outcomes and higher productivity in a country but also go along with a higher risk in health issues.

Contrary to human behavioral studies, the concept of the pace of life is established and well-researched in biological research, with regard to different animal species' behaviors. However there exists little research on the micro-level, which could contribute to understanding the impact of the pace of life concept. Biological literature mainly investigates how certain biographical features can explain individual variation in the behavior of animal species. To sum up, findings in previous literature indicate that life history differences largely correlate with the individual behavior of animals (Gangloff et al., 2017), thereby establishing the organismal

biological approach that life-history characteristics, evolutionary history, and physiological traits of environmental conditions are cumulated in a pace-of-life-syndrome. Therefore, biological research expects that pace of life differences can be traced back to different ecological environments. Réale et al. (2010) assume that pace of life experiences are imprinted once. Moreover, they emphasize that poorer environmental circumstances are concomitant with characteristics that are typical for slow phenotypes, whereas sufficient resources go along with faster phenotypes. Accordingly, not adhering to the dominant local interpretation of time may generate tensions between an individual and its environment. Međedović (2018) argues that the behavioral ecological approach offers theoretical concepts providing clear hypotheses which would even allow testing on humans. Still, the transfer from animal to human research is difficult. Nevertheless, Međedović (2018) recommends that researchers apply the evolutionary ecology approach to the psychology of human personality.

Moving on to pace of life research conducted concerning human behavior, Goldbach et al. (2020) find a significant influence of the pace of life on an individual's decision to speed while driving. Moreover, Levine et al. (1980) investigate punctuality by comparing American and Brazilian people and find differing degrees of awareness of time within different cultures. Morello (1997) consolidates these results, disclosing different awareness levels of time among Sicilian and American people. These concordant results demonstrate that people from different cultures have different perceptions of time, which are imprinted on every individual. Hence, a mismatch between focal person and society might lead to Halo-effects: individuals might not attribute misperceptions of time to differences in time perception but their intelligence or equate them with violations of social norms. Derived from these results, Levine and Norenzayan (1999) highlight that, although faster-paced places might attract a higher-than-average number of migrants, it can be assumed that the individual pace of migrants also plays a significant role in their choice of country. Slow-paced people will, hence, prefer to migrate to slow-paced countries and vice versa.

Finally, one can assume that the pace of life of individuals acquired in the country of origin can lead to discrimination of migrants in the labor market and thus causes disadvantages in terms of labor market outcomes. We argue that a mismatch in an individual's early familiarized origin country's pace of life and the pace of life of others within the host society may affect labor market outcomes: In particular, we analyze labor market participation and hypothesize that

The greater the difference between the pace of life from the country of origin of an individual and pace of life of the host country's society, the lower the likelihood of labor market integration.

4 Method

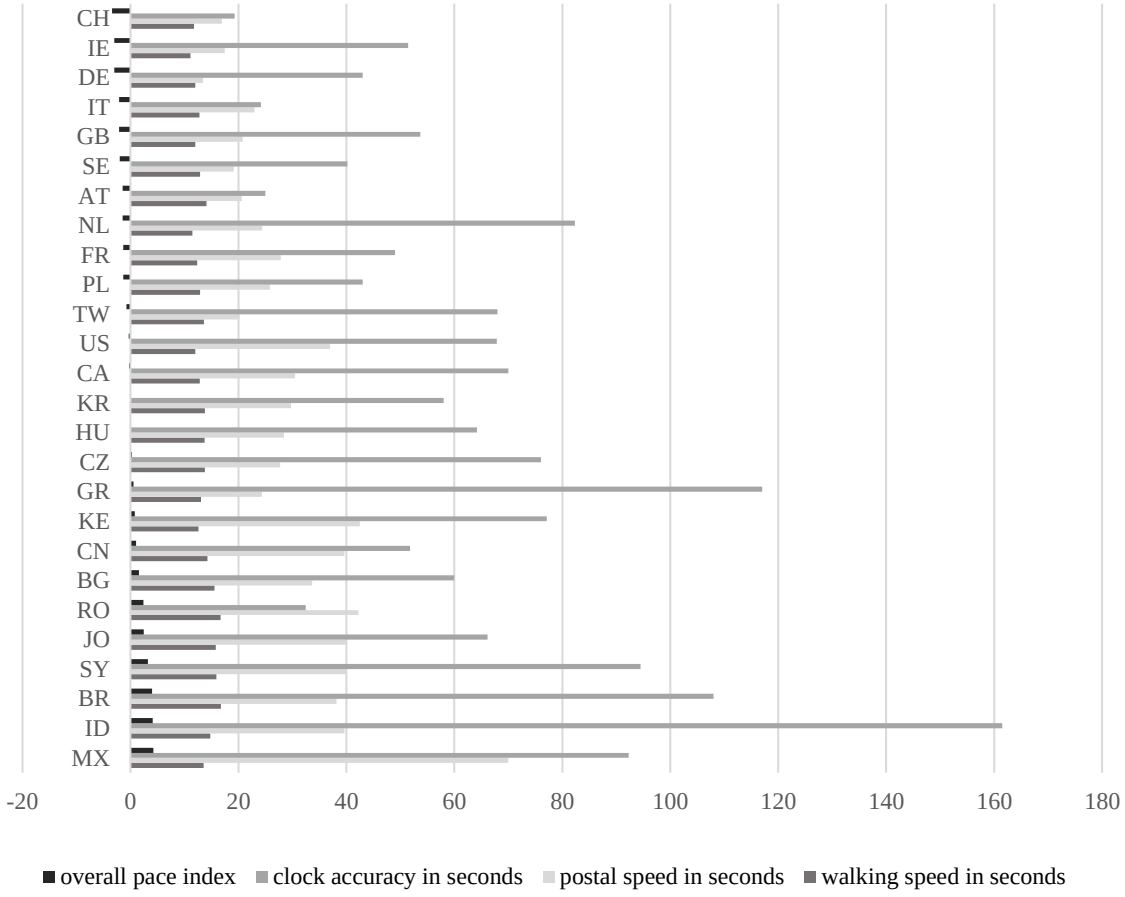
For our analysis, we consult the German Socio-Economic Panel (G-SOEP). Its data is provided by the German Institute of Economic Research (DIW Berlin). In particular, we utilize the IAB-SOEP Migration samples from 2013 to 2015, a representative longitudinal survey of private households. Technically, the dataset is an unbalanced panel dataset, as some individuals are recorded once and others are surveyed repeatedly (in 2013, 2014 and 2015). As pace of life is a stable characteristic over time, we use a cross-sectional approach. Thereby, we incorporate as many individuals as possible in the analysis. The models used in this study (Table 2) only incorporate 1,676 individuals, which were all observed at only one point in time. Thus, no panel specific models are used.

Dependent variable

The empirical modeling is based on data that estimate full-time labor market participation (full-time employment versus non-full-time employment) and any labor market participation (full-time, part-time, and marginal employment versus no employment) as the dependent variables. The dependent variables have two different forms of operationalization regarding labor market participation: (I) We compare full-time employment (= 1) with part-time employment, marginal employment and no employment (= 0), and (II) we compare any employment (= 1), including full-time employment, part-time employment, and marginal employment, with being unemployed (= 0).

Independent variable

The independent variable in the empirical modeling refers to the gap in the pace of life between the country of origin and Germany. For our pace of life variable, we consulted data from Levine and Norenzayan (1999), who investigated the paces of life in 31 countries by including walking speed, postal speed, and clock accuracy, as well as the overall pace of life. Figure 1 depicts the differences in the pace of life in our sample countries.



Note. Source: Levine and Norenzayan (1999).

Figure 1: The Pace of life in the 26 countries of our sample

By combining the pace of life data from Levine and Norenzayan (1999) with the data from the IAB-SOEP Migration sample, we obtain data for 26 countries. However, in the following we focus on migrants. Thus, we do not consider Germany and consider the remaining 25 countries. For the considered migrants in our sample, we selected the pace of life of their country of origin. In addition, the independent variable the pace of life difference is computed by the difference in the pace of life of the migrants' country of origin and the German pace of life. Thereby, a country with a slower pace of life compared with Germany will yield a positive pace of life difference and a country with a faster pace of life compared with Germany will yield a negative pace of life difference.

We consider all migrants between 20 to 67 years of age. Self-employed persons are excluded from the analysis as we aim at analyzing integration in the labor market and self-employment may already be viewed as a response to lower opportunities to integrate. The basic population

consists of single people, couples, and married couples with and without children who migrated to Germany until 2013. We controlled for age at migration, as there are differences in the likelihood to participate in the labor market depending on whether one migrated as a child, teenager, or adult (Chiswick and Miller, 2015; Elo et al., 2015; Brenke and Clemens, 2017). Furthermore, we controlled for the years of education, which affects the probability of being hired (Belzil and Poinas, 2010; Krause et al., 2015). We also considered the variable gender (1 = female, 0 = male) to control for the differing labor market participation of men and women. Age is also an important control variable (see, e.g., Brenke and Clemens, 2017), as well as the size of hometown during childhood, which can influence the pace of life of individuals' (Lowin et al., 1971; Levine et al., 1980; Levine and Bartlett, 1984; Levine and Norenzayan, 1999). Another control variable in this study is the individuals' state of health, which affects the likelihood of working full- or part-time. Moreover, we control for time effects (wave) due to different labor market rates of the observed years. Table 1 reports all variables applied in this study (for correlations see Appendix 1, Table 3).

Table 1: Descriptive statistics of the variables

Independent Variable	Percentage	Min	Max	Mean	Std. dev.	N
Pace of life difference		-0.43	7.23	3.254	1.853	1,676
Age at migration		0	6l	27.002	10.632	1,676
Years of schooling		7	18	11.126	2.168	1,676
Gender		0	1	0.542	0.498	1,676
(Ref. = male)	45.82					768
Female	54.18					908
Age		20	67	40.035	10.017	1,676
Hometown size during childhood		1	4	2.457	1.134	1,676
(Ref. = very big)	28.04					470
Middle sized city	22.02					369
Small city	26.13					438
Rural area	23.81					399
Health status		1	5	2.034	0.960	1,676
(Ref. = very good)	32.04					537
Good	42.72					716
Satisfactory	16.47					276
Moderate	7.04					118
Bad	1.73					29

Table 1. Continued

Wave		2013	2015	2014.052	0.990	1,676
Wave 2013	46.54					780
Wave 2014	1.73					29
Wave 2015	51.73					867

5 Results

We run random probit models to identify how different paces of life affect labor market participation in the case of migrants in Germany. The first model compares full-time employment (= 1) with part-time employment, marginal employment, and no employment (= 0). Model II compares any employment (= 1), including full-time employment, part-time employment, or marginal employment with being unemployed (= 0).

Table 2: Probit regressions on the dependent variable full-time employment and any employment

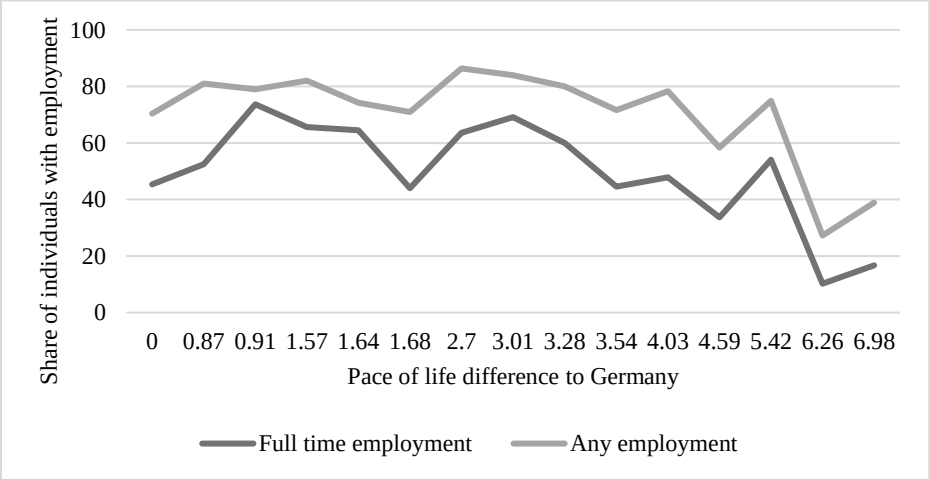
	Model I Full-time employment	Model II Any employment
Pace of life difference	-0.040**	-0.051***
	(0.019)	(0.019)
Age at migration	0.001	-0.006
	(0.004)	(0.005)
Years of schooling	0.114***	0.098***
	(0.017)	(0.017)
Gender (Ref.= men)	-1.177***	-0.616***
	(0.068)	(0.070)
Age	0.112***	0.065**
	(0.026)	(0.026)
Age*age	-0.001***	-0.001**
	(0.000)	(0.000)
Hometown size during childhood (Ref. = big city)		
Middle sized city	0.192*	0.138
	(0.098)	(0.097)
Small city	0.104	0.140
	(0.093)	(0.093)
Rural area	0.332***	0.370***
	(0.095)	(0.097)
Health status (Ref. = very good)		
good	-0.049	0.107
	(0.078)	(0.080)
satisfactory	-0.260**	-0.001
	(0.103)	(0.106)

Table 2. Continued

moderate	-0.585***	-0.539***
	(0.159)	(0.144)
bad	-0.566*	-0.963***
	(0.293)	(0.263)
Wave (Ref. = wave 2013)		
Wave 2014	-0.330	-0.403*
	(0.227)	(0.244)
Wave 2015	-0.129*	-0.296***
	(0.078)	(0.080)
Constant	-2.877***	-1.220**
	(0.563)	(0.555)
Observations	1,676	1,676

Note. We cannot use standard panel methods as the dataset is not a technical panel with repeated observations of the same individuals but three waves of survey data with different individuals in each survey. Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1.

For both models, the independent variable "pace of life difference" shows a significant negative impact on labor market participation. Thereby, both models imply a lower labor market participation for a higher pace of life difference. This confirms our hypothesis that a larger difference in the pace of life between the country of origin and the country of residence lowers the probability of labor market participation. In Table 2, we include every difference (see Appendix 2, Table 4 for probit regressions only with deviations from Germany to lower paced countries). Moreover, Figure 2 highlights a decreasing percentage of migrants working full-time or in any form of employment while possessing a high pace of life difference.



Note. Analysis based on Levine and Norenzayan (1999), IAB SOEP Migration Sample (2013, 2014, 2015), DIW Berlin. Only countries with more than 10 observations were considered.

Figure 2: Labor market participation: country of origin and pace of life difference to German pace of life

Concerning the control variables in our model, we confirm many past results on the labor market participation of migrants: education (in regard to years of schooling) has a significant positive impact on labor market participation. Individuals with more years of schooling are on average more likely to have full-time employment or any type of employment. The control variable "gender" shows that migrant women face larger obstacles with regard to labor market participation. Both considered models show that female migrants are on average significantly less likely to be employed in a full-time employment or any type of employment compared to male migrants. Furthermore, age has a significant and inverse u-shaped effect on labor market participation. Thereby, an increase in age is associated with an increase in the likelihood of labor market participation up until the age of 45 for full-time employment and 48.5 for any type of employment. Afterwards an increase in age is associated with a decrease in the likelihood of labor market participation.

Migrants that spent their childhood in rural areas within their country of origin show a higher likelihood of participating in the labor market (regarding full-time employment and any type of employment). Moreover, migrants who grew up in rural areas received a higher probability of participating in the labor market in comparison to migrants who were raised in big cities. Furthermore, the individual's health status has a significant positive effect on labor market participation. Thereby, a worse health status is associated with a decreased likelihood of participating at the labor market. More specifically, individuals who do report a 'moderate' or 'bad' health status are significantly less likely to participate in the labor market in either full-time or any employment compared to individuals that report a 'very good' health status.

6 Discussion

We hypothesize that the greater the difference between the individual early familiarized pace of life and the pace of life in the host country's society, the less likely an individual is to be fully integrated into the labor market. We find evidence for this hypothesis, as a lower pace of life difference entails a positive association with labor market participation. Migrants with lower differences in the pace of life are, therefore, more successful at participating in the labor market; this holds not only for full-time employment but also for any labor market participation.

Also, our results align with the person–culture match hypothesis proposed by Fulmer et al. (2010), in which well-being rises when the cultural environment pairs well with the common values of natives in a country. The research of Antecol (2000), Fernández et al., (2004) as well

as Knowles and Postlewaite (2005), is also in line with our finding that labor market participation in a host country depends on initial values here the pace of life, which may be deeply ingrained through culture transmitted through the familial environment and early childhood experiences. Thus, next to discrimination and human capital differences, also differences in the origin country's pace of life provide a possible explanation for the migrant employment gap.

Concerning the alternative explanations, we also find evidence that human capital carries weight. Individuals with more years of schooling are more likely to be employed full time (0.114***) and to have any type of employment (0.098***). These results are in line with previously mentioned literature regarding individual educational skills (Chiswick and Miller, 2002; Adsera and Chiswick, 2007; Li et al., 2008; Algan et al., 2010; Belzil and Poinas, 2010; Elo et al., 2015; Krause et al., 2015). It is noteworthy, however, that even after controlling for human capital, we still find an effect of a pace of life mismatch. Concerning the other control variables, our results confirm past findings: for women, in comparison to men, we found significant negative effects on labor market participation. These findings are in line with past research on the gender gap and also suggests that employers prefer male migrants (Antecol, 2000; Aguilera, 2002; Fernández, 2007). Furthermore, we find highly significant inverse u-shaped effects regarding age and full-time employment, as well as any employment. For young individuals an increase in age is associated with a higher likelihood of labor market participation and for older individuals an increase in age is associated with a lower labor market participation. The result generally conforms to Brenke and Clemens (2017), who also find the highest labor market participation rates for individuals between the ages of 30 and 54. Furthermore, our results demonstrate that migrants who grow up in rural areas have a higher probability of participating in the labor market compared to migrants who were raised in big cities. Additionally, an individual's health status has a positive effect on labor market participation. This may give rise to the assumption that physical and mental health contributes significantly to the likelihood of participating in the labor market whereas an individual's poor health status results in much worse labor market participation.

7 Conclusion

In our study, we introduced a new possible explanation for the migrant employment gap, namely differences in the pace of life. We hypothesized that migrants with lower differences in home and host country pace of life are more successful at participating in the labor market.

Limitations of this study are addressed in the following: firstly, our research focuses only on differentiating individuals based on whether they were born in another country. Secondly, it would be interesting to further investigate whether the pace of life is early familiarized through cultural traits, as well as family values, and determines further life or not. These findings would be in line with Levine et al. (1980). Moreover, it would be interesting to see whether labor market integration is correlated with pace of live on other national labor markets as well. Thirdly, to deepen the effect of pace of life differences on labor market participation, acquiring information on the pace of life of every individual instead of the pace-of-life index of the respective country would open up new research possibilities. This approach would allow for individualized and more detailed information about the variables that influence individual's cultural values and the pace of life. Therefore, such valuable information about the individual pace of life could be applied to investigate whether individuals with a faster pace of life are more successful in any country (see Goldbach et al. 2020 for the pace of life and individual behavior). Unfortunately, we cannot answer this question yet since we only have access to labor market data from one country. However, determining whether a match of the pace of life is the main explanation for labor market success or whether faster types are always more successful, regardless of their surroundings, is a promising research direction (see Réale et al., 2010; Gangloff et al., 2017; Međedović, 2018).

When pondering possible solutions concerning the labor market participation of migrants, we suggest the development of career capital checklists, although these might prove useful only to a certain degree. Until now, the notion of differences in the pace of life remains implicit and subconscious. One might, consequently, expect that explicating time differences may contribute to an improved adaptation process or, at least, to a better understanding. Through these checklists, migrants might have the opportunity to reduce the inequality of human capital to increase the likelihood of obtaining employment (Brislin and Kim, 2003). In this manner, however, migrants with a higher pace of life difference will less likely be successful than migrants who exhibit lower pace of life differences. This may be ascribed to the difference in initial values, which are ingrained differently regarding cultural traits (Antecol, 2000; Fulmer et al., 2010; Borch and Corra, 2010). Another suggestion to reduce employment gaps between native and foreign-born individuals could be a skill-based immigration policy by considering migrants who demand visas of permanent residence, English language skills, and level of education (Chiswick and Miller, 2015).

We believe that future research should focus on variables that contribute to a better migrant labor market participation while considering the aforementioned influential factors, such as the pace of life. Additionally, complicated distinctive phenotypic cultural characteristics and values need to be considered since they are of increasing importance due to the enormous heterogeneity of individuals that has emerged in the last two decades in the labor markets. Moreover, this topic will also pose an increasingly difficult challenge for public policy.

For further research, we recommend examining the following questions: firstly, gaining a deeper insight into the question of whether the pace of life for migrants is different, considering leisure and work time, would be a fruitful approach. Secondly, investigating possible differences in the effect of the pace of life on labor market participation while migrating from faster-paced countries of origin to slower-paced host countries might further advance the scientific discourse. Thirdly, the high labor market participation effect of migrants who grew up in rural areas and received a higher probability of participating in the labor market compared to migrants who were raised in big cities calls for further investigation. Fourthly, there is insufficient research on the importance of cultural values in a familial context in comparison to other influential factors and to what extent a cultural transfer is purposeful. Moreover, referring to third- and higher-generation migrants, future research should determine whether or not they differ in their parental perception regarding the pace of life and other cultural traits. Aside from the lack of data, studies conducted in the field of economics and migration have insufficiently studied these interdependencies and demand further research.

References

Adsera, A., & Chiswick, B. R. (2007). Are there gender and country of origin differences in immigrant labor market outcomes across European destinations?. *Journal of Population Economics*, *20*, 495-526.

Afonso, A., & Devitt, C. (2016). Comparative political economy and international migration. *Socio-Economic Review*, *14*, 591-613.

Aguilera, M. B. (2002). The impact of social capital on labor force participation: Evidence from the 2000 Social Capital Benchmark Survey. *Social Science Quarterly*, *83*, 853-874.

Alesina, A., Giuliano, P., & Nunn, N. (2013). On the origins of gender roles: Women and the plough. *The Quarterly Journal of Economics*, *128*, 469-530.

Algan, Y., Dustmann, C., Glitz, A., & Manning, A. (2010). The economic situation of first and second-generation immigrants in France, Germany and the United Kingdom. *The Economic Journal*, *120*, F4-F30.

Amuedo-Dorantes, C., & de la Rica, S. (2005). Immigrants' Responsiveness to Labor Market Conditions and Its Implications on Regional Disparities: Evidence from Spain. *SERIEs*, *4*, 387-407.

Antecol, H. (2000). An examination of cross-country differences in the gender gap in labor force participation rates. *Labour Economics*, *7*, 409-426.

Belzil, C., & Poinas, F. (2010). Education and early career outcomes of second-generation immigrants in France. *Labour Economics*, *17*, 101-110.

Bettencourt, L. M. A., Lobo, J., Helbing, D., Kühnert, C., & West, G. B. (2007). Growth, innovation, scaling, and the pace of life in cities. *Proceedings of the National Academy of Sciences*, *104*, 7301-7306.

Beyer, R. C. (2016). *The labor market performance of immigrants in Germany*. IMF Working Paper No. WP/16/6, International Monetary Fund.

Borch, C., & Corra, M. K. (2010). Differences in earnings among black and white African immigrants in the United States, 1980–2000: a cross-sectional and temporal analysis', *Sociological Perspectives*, *53*, 573-592.

Bornstein, M. H., & Bornstein, H. G. (1976). The pace of life. *Nature*, *259*, 557-559.

Brenke, K., & Clemens, M. (2017). Increased labor market participation can't do the job of mastering Germany's demographic change in the future. *DIW Economic Bulletin*, *7*, 325-334.

Brislin, R. W., & Kim, E. S. (2003). Cultural diversity in people's understanding and uses of time. *Applied Psychology*, *52*, 363-382.

Brügger, B., Lalive, R., & Zweimüller, J. (2009). Does culture affect unemployment? Evidence from the Röstigraben. IZA Discussion Paper No. 4283, Munich, Center for Economic Studies and ifo Institute.

Chiswick, B. R., & Miller, P. W. (2002). Immigrant earnings: Language skills, linguistic concentrations and the business cycle. *Journal of Population Economics*, *15*, 31-57.

Chiswick, B. R., & Miller, P. W. (2015). International migration and the economics of language. In Chiswick, B. R. and Miller, P. W. (eds) *Handbook of the economics of international migration*. Amsterdam: North-Holland, 211-269.

Confurius, D., Gowricharn, R., & Dagevos, J. (2019). Labour market participation of Sub-Saharan Africans in the Netherlands: the limits of the human capital approach. *Journal of Ethnic and Migration Studies*, *45*, 2328-2347.

Connor, P., & Koenig, M. (2015). Explaining the Muslim employment gap in Western Europe: Individual-level effects and ethno-religious penalties. *Social Science Research*, *49*, 191-201.

Csedő, K. (2008). Negotiating skills in the global city: Hungarian and Romanian professionals and graduates in London. *Journal of Ethnic and Migration Studies*, *34*, 803-823.

Destatis (2016). 'Immigration and net immigration peaked in 2015', accessed at https://www.destatis.de/EN/PressServices/Press/pr/2016/07/PE16_246_12421.html on January 18, 2018.

Destatis (2017). 'More than 10 million foreigners in Germany', accessed at https://www.destatis.de/EN/PressServices/Press/pr/2017/06/PE17_227_12521.html on February 12, 2018.

Destatis (2018). 'Year-on-year increase of 4.4% in the population with a migrant background in 2017', accessed at https://www.destatis.de/EN/PressServices/Press/pr/2018/08/PE18_282_12511.html on September 12, 2018.

Elo, I. T., Frankenberg, E., Gansey, R., & Thomas, D. (2015). Africans in the American labor market. *Demography*, *52*, 1513-1542.

Fernández, R. (2007). Women, Work, and Culture. *Journal of the European Economic Association*, *5*, 305-332.

Fernández, R., & Fogli, A. (2006). Fertility: The role of culture and family experience. *Journal of the European Economic Association*, *4*, 552-561.

Fernández, R., Fogli, A., & Olivetti, C. (2004). Mothers and Sons: Preference Formation and Female Labor Force Dynamics. *Quarterly Journal of Economics*, *119*, 1249-1299.

Frank, K., & Hou, F. (2016). Beyond culture: source country female labour force participation and the earnings of immigrant women. *Work, employment and society*, *30*, 410-435.

Fulmer, C. A., Gelfand, M. J., Kruglanski, A. W., Kim-Prieto, C., Diener, E., Pierro, A., & Higgins, E. T. (2010). On 'feeling right' in cultural contexts: How person-culture match affects self-esteem and subjective well-being. *Psychological Science*, *21*, 1563-1569.

Gangloff E. J., Chow M., Leos-Barajas V., Hynes S., Hobbs B., & Sparkman A. M. (2017). Integrating behaviour into the pace-of-life continuum: Divergent levels of activity and information gathering in fast-and slow-living snakes. *Behavioural processes*, *142*, 156-163. https://doi.org/10.1016/j.beproc.2017.06.006

Goldbach, C., Hoffmann, C., Hoppe, J., Pitz, T., & Thommes, K. (2020). The fast and the furious - An experimental investigation of the pace of life and risky speed choice in traffic. *PloS one*, *15*(7), e0236589.

Kaas, L., & Manger, C. (2012). Ethnic discrimination in Germany's labour market: a field experiment. *German economic review*, *13*, 1-20.

Kahanec, M., & Zaiceva, A. (2009). Labor market outcomes of immigrants and non-citizens in the EU: An East-West comparison. *International Journal of Manpower*, *30*, 97-115.

Kislev, E. (2019). Open markets, closed societies: The dual assimilation of immigrants in Western Europe. *Social Science Research*, *82*, 92-104.

Knowles, J., & Postlewaite, A. (2005). Do children learn to save from their parents, PARC Working Paper Series No. WPS 05–07. *Philadelphia, PA: University of Pennsylvania., Population Aging Research Center*.

Koopmans, R. (2016). Does assimilation work? Sociocultural determinants of labour market participation of European Muslims. *Journal of Ethnic and Migration Studies*, *42*, 197-216.

Krause, A., Rinne, U., & Schüller, S. (2015). Kick It Like Özil? Decomposing the Native-Migrant Education Gap. *International Migration Review*, *49*, 757-789.

Lamont, M., Beljean, S., & Clair, M. (2014). What is missing? Cultural processes and causal pathways to inequality. *Socio-Economic Review*, *12*, 573-608.

Lancee, B. (2012). The economic returns of bonding and bridging social capital for immigrant men in Germany. *Ethnic and Racial Studies*, *35*, 664-683.

Levine, R. V. (1997). *A geography of time: The temporal misadventures of a social psychologist*, New York, NY, Basic Books.

Levine, R. V., & Bartlett, K. (1984). Pace of life, punctuality, and coronary heart disease in six countries. *Journal of Cross-Cultural Psychology*, *15*, 233-255.

Levine, R. V., & Norenzayan, A. (1999). The pace of life in 31 countries. *Journal of cross-cultural psychology*, *30*, 178-205.

Levine, R. V., West. L. J., &Reis, H. T. (1980). Perceptions of time and punctuality in the United States and Brazil. *Journal of Personality and Social Psychology*, *38*, 541-550.

Li, Y., Devine, F., & Heath, A. (2008). *Equality group inequalities in education, employment and earnings: A research review and analysis of trends over time*. EHRC Research Report Series Research Report 10, Manchester, Equality and Human Rights Commission.

Lowin, A., Hottes, J. H., Sandler, B. E., & Bornstein, M. (1971). The pace of life and sensitivity to time in urban and rural settings: A preliminary study. *The Journal of Social Psychology*, *83*, 247-253.

Lundborg, P. (2013). Refugees' Employment Integration in Sweden: Cultural Distance and Labor Market Performance. *Review of International Economics*, *21*, 219-232.

Mahmud, S., Alam, Q., & Härtel, C. (2014). Mismatches in skills and attributes of immigrants and problems with workplace integration: a study of IT and engineering professionals in Australia. *Human Resource Management Journal*, *24*, 339-354.

Martinovic, B., Van Tubergen, F., & Maas, I. (2009). Changes in immigrants' social integration during the stay in the host country: The case of non-western immigrants in the Netherlands. *Social Science Research*, *38*(4), 870-882.

Mayrhofer, W., Meyer, M., Iellatchitch A., & Schiffinger M. (2004). Careers and human resource management: a European perspective. *Human Resource Management Review, 14*, 473-498.

Međedović J. (2018). What can human personality psychology learn from behavioral ecology?. *Journal of Comparative Psychology*, *132*(4): 382. https://doi.org/10.1037/com0000120.

Morello, G. (1997). Sicilian Time. *Time & Society, 6*, 55-69.

Moriconi, S., & Peri, G. (2019). Country-specific preferences and employment rates in Europe. *European Economic Review*, *116*, 1-27.

Réale, D., Garant, D., Humphries, M. M., Bergeron, P., Careau, V., & Montiglio, P. O. (2010). Personality and the emergence of the pace-of-life syndrome concept at the population level. *Philosophical Transactions of the Royal Society B: Biological Sciences*, *365*, 4051-4063.

Simón, H., Sanromá, E., & Ramos, R. (2008). Labour segregation and immigrant and native-born wage distributions in Spain: an analysis using matched employer–employee data. *Spanish Economic Review, 10*, 135-168.

Uhlendorff, A., & Zimmermann, K. F. (2014). Unemployment dynamics among migrants and natives. *Economica, 81*, 348-367.

Venturini, A., & Villosio, C. (2008). Labour-market assimilation of foreign workers in Italy. *Oxford Review of Economic Policy*, *24*, 517-541.

Vijaya, R. (2020). Comparing Labor Market Trajectories of Refugee Women to Other Immigrant and Native-Born Women in the United States. *Feminist Economics*, 1-29.

White, L. T., Valk, R., & Dialmy, A. (2011). What is the meaning of "on time"? The sociocultural nature of punctuality. *Journal of Cross-Cultural Psychology, 42*(3), 482-493.

Zimbardo, P. G., & Boyd, J. N. (1999). Putting time in perspective: A valid, reliable individual-differences metric. *Journal of Personality and Social Psychology*, *77*, 1271-1288.

Appendix

Appendix 1

Table 3: Correlations of all considered variables

	Employee	Full-time-employment	Diff. Pace of life	Years of schooling	Gender	Age	Age at migration	Hometown size during childhood	Health	Wave
Employee	1.0000									
Full-time-employment	0.617***	1.0000								
Diff Pace of life	-0.101**	-0.077***	1.0000							
Years of schooling	0.118***	0.144***	-0.022	1.0000						
Gender	-0.204***	-0.417***	0.049**	0.042*	1.0000					
Age	0.051***	0.055**	-0.154***	-0.120***	-0.083***	1.0000				
Age at migration	-0.014	0.047*	0.084***	0.044*	-0.026	0.562***	1.0000			
Hometown size during childhood	0.107***	0.032	-0.044*	-0.184***	0.015	0.036	0.040	1.0000		
Health status	-0.107***	-0.134***	-0.039	-0.159***	0.053**	0.303***	0.087***	0.049**	1.0000	
Wave	0.085***	0.005	0.154***	0.246***	-0.026	-0.269***	0.151***	-0.023	-0.140***	1.0000

Note. *** p<0.01, ** p<0.05, * p<0.1.

Appendix 2:

The regressions in the paper in Table 2 consider both deviations equally, in particular faster and slower countries in relation to Germany. Only two observations in the data set are faster than Germany (Switzerland and Ireland), therefore no analysis is possible. Though, the regression of the slower countries from Table 4 shows that the results do not change.

Table 4: Probit Regressions on the dependent variable full-time employment and any employment without Switzerland and Ireland

	Model I Full-time employment	Model II Any employment
Pace of life difference	-0.042**	-0.051***
	(0.019)	(0.019)
Age at migration	0.001	-0.007
	(0.004)	(0.005)
Years of schooling	0.115***	0.099***
	(0.017)	(0.017)
Gender (Ref.= men)	-1.177***	-0.616***
	(0.068)	(0.070)
Age	0.106***	0.060**
	(0.026)	(0.026)
Age*Age	-0.001***	-0.001**
	(0.000)	(0.000)
Hometown size during childhood (Ref. = big city)		
Middle sized city	0.188*	0.126
	(0.098)	(0.097)
Small city	0.102	0.130
	(0.093)	(0.093)
Rural area	0.327***	0.358***
	(0.095)	(0.098)
Health status (Ref.=very good)		
good	-0.046	0.098
	(0.079)	(0.081)
satisfactory	-0.261***	-0.017
	(0.103)	(0.106)
moderate	-0.588***	-0.553***
	(0.159)	(0.144)
bad	-0.575**	-0.983***
	(0.293)	(0.264)
Wave (Ref.=wave 2013)		
Wave 2014	-0.340	-0.412*
	(0.227)	(0.245)
Wave 2015	-0.129*	-0.293***
	(0.078)	(0.080)
Constant	-2.762***	-1.128***
	(0.564)	(0.557)
Observations	1,676	1,666
Individuals	1,676	1,666

Note. Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1.