# **ECONSTOR** Make Your Publications Visible.

A Service of

ZBW

Leibniz-Informationszentrum Wirtschaft Leibniz Information Centre for Economics

Samarsky, Elena

Working Paper

# Who is thinking of leaving Germany? The role of postmaterialism, risk attitudes, and life-satisfaction on emigration intentions of German nationals

SOEPpapers on Multidisciplinary Panel Data Research, No. 1066

**Provided in Cooperation with:** German Institute for Economic Research (DIW Berlin)

*Suggested Citation:* Samarsky, Elena (2020) : Who is thinking of leaving Germany? The role of postmaterialism, risk attitudes, and life-satisfaction on emigration intentions of German nationals, SOEPpapers on Multidisciplinary Panel Data Research, No. 1066, Deutsches Institut für Wirtschaftsforschung (DIW), Berlin

This Version is available at: https://hdl.handle.net/10419/214238

#### Standard-Nutzungsbedingungen:

Die Dokumente auf EconStor dürfen zu eigenen wissenschaftlichen Zwecken und zum Privatgebrauch gespeichert und kopiert werden.

Sie dürfen die Dokumente nicht für öffentliche oder kommerzielle Zwecke vervielfältigen, öffentlich ausstellen, öffentlich zugänglich machen, vertreiben oder anderweitig nutzen.

Sofern die Verfasser die Dokumente unter Open-Content-Lizenzen (insbesondere CC-Lizenzen) zur Verfügung gestellt haben sollten, gelten abweichend von diesen Nutzungsbedingungen die in der dort genannten Lizenz gewährten Nutzungsrechte.

#### Terms of use:

Documents in EconStor may be saved and copied for your personal and scholarly purposes.

You are not to copy documents for public or commercial purposes, to exhibit the documents publicly, to make them publicly available on the internet, or to distribute or otherwise use the documents in public.

If the documents have been made available under an Open Content Licence (especially Creative Commons Licences), you may exercise further usage rights as specified in the indicated licence.



## WWW.ECONSTOR.EU





## **SOEPpapers**

on Multidisciplinary Panel Data Research

SOEP - The German Socio-Economic Panel at DIW Berlin

1066-2020

Who is Thinking of Leaving Germany? The Role of Postmaterialism, Risk Attitudes, and Life-Satisfaction on Emigration Intentions of German Nationals

Elena Samarsky



#### SOEPpapers on Multidisciplinary Panel Data Research at DIW Berlin

This series presents research findings based either directly on data from the German Socio-Economic Panel (SOEP) or using SOEP data as part of an internationally comparable data set (e.g. CNEF, ECHP, LIS, LWS, CHER/PACO). SOEP is a truly multidisciplinary household panel study covering a wide range of social and behavioral sciences: economics, sociology, psychology, survey methodology, econometrics and applied statistics, educational science, political science, public health, behavioral genetics, demography, geography, and sport science.

The decision to publish a submission in SOEPpapers is made by a board of editors chosen by the DIW Berlin to represent the wide range of disciplines covered by SOEP. There is no external referee process and papers are either accepted or rejected without revision. Papers appear in this series as works in progress and may also appear elsewhere. They often represent preliminary studies and are circulated to encourage discussion. Citation of such a paper should account for its provisional character. A revised version may be requested from the author directly.

Any opinions expressed in this series are those of the author(s) and not those of DIW Berlin. Research disseminated by DIW Berlin may include views on public policy issues, but the institute itself takes no institutional policy positions.

The SOEPpapers are available at http://www.diw.de/soeppapers

#### Editors:

Jan **Goebel** (Spatial Economics) Stefan **Liebig** (Sociology) David **Richter** (Psychology) Carsten **Schröder** (Public Economics) Jürgen **Schupp** (Sociology) Sabine **Zinn** (Statistics)

Conchita **D'Ambrosio** (Public Economics, DIW Research Fellow) Denis **Gerstorf** (Psychology, DIW Research Fellow) Katharina **Wrohlich** (Gender Economics) Martin **Kroh** (Political Science, Survey Methodology) Jörg-Peter **Schräpler** (Survey Methodology, DIW Research Fellow) Thomas **Siedler** (Empirical Economics, DIW Research Fellow) C. Katharina **Spieß** (Education and Family Economics) Gert G. **Wagner** (Social Sciences)

ISSN: 1864-6689 (online)

German Socio-Economic Panel (SOEP) DIW Berlin Mohrenstrasse 58 10117 Berlin, Germany

Contact: soeppapers@diw.de



## Who is Thinking of Leaving Germany? The Role of Postmaterialism, Risk Attitudes, and Life-Satisfaction on Emigration Intentions of German Nationals.

Elena Samarsky<sup>1</sup>

Department of Sociology, University of Oxford

#### ABSTRACT

The subject of emigration from affluent countries, such as Germany, raises the question of who are more likely to leave their highly-industrialized countries known for high living standards, stable political scene and prosperous economy. Using the theory of postmaterialism (Inglehart, 1997) this paper explores emigration intentions of German nationals taking into account country's specific socio-economic context through the value sets of its nationals. By analyzing emigration intentions of German nationals recorded by the German SocioEconomic Panel (SOEP) the findings link postmaterialism theory to emigration intentions, and show that those who express emigration intentions are more likely to have postmaterialistic values than materialistic or mixed values. Furthermore, when controlling for life-satisfaction and risk attitudes, the effect of postmaterialistic and materialistic values on intentions to emigrate remain significant. Lastly, the analysis corroborates other studies by showing that those who display emigration intentions also more likely to have higher risk tolerance and lower life-satisfaction.

Keywords: Migration intentions, value set, risk attitudes, life-satisfaction, Germany

#### Introduction

Emigration from affluent countries raises the question of who is more likely to choose to leave highly industrialized countries known for their high living standards, stable political

<sup>&</sup>lt;sup>1</sup>Acknowledgements The paper was written during the research stay at the Socio-Economic Panel (SOEP) department at the German Institute for Economic Research between 2016 and 2017. The author would like to thank Dr. Elisabeth Liebau for the comments on earlier drafts.

scene and prosperous economy. Even though emigration from these countries is a relatively limited phenomenon, a few projects have examined emigration intentions in affluent countries in order to advance our understating of the phenomenon (Hadler, 2006; Remhof, 2008; van Dalen and Henkens, 2008, 2013; Pantenburg et al., 2018). Comparative empirical examination, however, showed variation between migration intentions across countries not only regarding the determinants of these intentions, but also the characteristics of those who express them (see Esipova et al., 2011, 2016; Williams et al., 2018; Migali and Scipioni, 2019). Despite the variation, available data are consistent in showing that those who express emigration intentions have a number of characteristics that set them apart from those who do not express such intentions (Ahn, et al., 1999; Chiswick, 2000; Esipova et al., 2011, 2016; Bodvarson and van den Berg, 2013; van Dalen and Henkens, 2013; Fouarge et al, 2019).

Focusing explicitly on the case of Germany addresses the question of emigration intentions taking into account the country's specific socio-economic context. While being one of the main destination countries for migrants, one of the strongest economies in the world with favourable labour market situation, and a well-established welfare system, Germany continues to experience a rise in emigration (BMF, 2011, 2015, 2019). According to the national records over 120,000 German nationals leave the country on an annual basis since 2000s (BMF, 2011, 2015, 2019). Examining characteristics of actual emigrants as well as available data on those who express intentions to migrate provides strong support that German emigration is a positively selected process, i.e. migrants' or potential emigrants' age, education and occupational status set them apart from the general population. According to national statistical records, actual emigrants are more likely to be younger, hold university diplomas, and reside in large and middle-sized cities (Ette and Sauer, 2010; BMF, 2015, 2019; OECD, 2015). Furthermore, working-age nationals are overrepresent in these emigration flows (BMF, 2015, 2019). Survey data on emigration intentions register similar patterns. According to these surveys, people who exhibit higher intentions to emigrate have similar characteristics to actual migrants, e.g., they are more likely to hold higher education diplomas, to be younger, single and live in West Germany (Uebelmesser, 2006; Knerr, 2007; Liebau and Schupp, 2011). Observing such similarities between actual emigration flow and recorded emigration intentions is not uncommon. Indeed, the association between emigration intentions and actual migration have been examined repeatedly by the academic community, and despite some limitations, research provides support for reliability of the assessment of the survey data on emigration intentions (van Dalen and Henkens, 2008; Esipova et al., 2011, 2016; Creighton, 2013; Tjaden et al., 2019).

In the German context, despite increasing emigration flow, large scale survey data on intentions to emigrate became available only more recently. Since then, several projects have examined emigration intentions focusing specifically on a particular population within Germany. For example, research on emigration intentions of foreign nationals in Germany

(Bellemare, 2007; Gundel and Peters, 2008; Kuhlenkasper and Steinhardt, 2017), intentions for regional mobility (Busch and Weigert, 2010; Bonisch and Lutz, 2010; Stauder, 2018), emigration intentions of German students (Diehl et al., 2008; Liebau and Schupp, 2011), academics (Remhof, 2008), people holding intermediate qualifications (Verwiebe et al., 2010) and physicians (Pantenburg et al., 2018). Despite these examples, we still have a limited understanding of the personal characteristics of those who express emigration intentions as well as the determinants of these intentions.

The main aim of this paper is to advance the literature on emigration intentions by incorporating the theory of postmaterialism developed by Robert Inglehart (Inglehart, 1971). Using this framework to examine intentions of German nationals allows taking into account the country's specific socio-economic context through value set. This theory links the level of economic development of the country to value sets, by suggesting that increase in prosperity leads to the transformation of a person's value set from materialistic values (focus on financial security) to postmaterialistic values (focus on non-material goals such as self-expression, autonomy). Hence, this specific context allows to investigate the influence of the economic environment on emigration intentions through the agency of value set (postmaterialistic, materialistic, and mixed values). Although never applied to study of emigration intentions before, examining such a relationship might offer a new framework for analysing emigration intentions from affluent countries. Understanding who is more likely to emigrate, values-wise, could indicate a particular world understanding of these prospect emigrants.

Furthermore, the paper aims to add to the existing literature by examining the relationship between emigration intentions and value set taking into account life-satisfaction and risk attitudes. Indeed, when addressing emigration intentions scholars pay attention to the role of life-satisfaction and risk attitudes as determining factors for these intentions (Chindarkar, 2012; Williams and Balaz 2012; Otrachshenko and Popova, 2014; Ivlevs, 2014; Akgüç et al., 2016; Huber and Nowotny, 2018). While the relationship between emigration intentions and risk attitudes and life-satisfaction has been examined repeatedly, in the context of Germany such relationship is only rarely examined and documented (see Jaeger et al., 2010; Pantenburg et al., 2018). Therefore, including these factors in the analysis may contribute to our understanding on the relationship between migration intentions, risk-attitudes and life-satisfaction in the specific context of Germany.

The paper is based on data from the SocioEconomic Panel years 2006-2009, and used 12,000 observations for the analysis. Using logistic regression for dichotomous dependent variables, the paper examined emigration intentions while controlling for various demographic variables, as well as life-satisfaction, risk attitudes. The rationale for applying this theoretical framework as well as the aforementioned variables are presented in greater detail in the next section. After presenting the framework, a section is devoted to presentation and discussion

of the dataset and methods. Descriptive statistics and statistical analysis sections follow and present analysis of the data set as well as discuss the findings. The paper concludes by summarizing and emphasizing its contribution to the literature.

### **Theoretical Framework**

The main contribution of this paper is its novel approach to understanding emigration intentions through the lens of Inglehart's theory on value set. The theory was developed by Robert Inglehart in the 70s and distinguishes materialistic from postmaterialistic value sets (Abramson and Inglehart, 1987). The former is expressed by giving top priorities to physical sustenance and safety, and the latter is expressed by greater emphasis on sense of belonging, self-expression, self-realization and quality of life (Inglehart, 1971, 1981). A wider definition of postmaterialistic values includes self-expression, gender equality, tolerance towards outgroups, environmental protection, higher participation in economic and political life, and relatively high levels of subjective well-being and individual freedom (Darren and Davenport, 1999; Marks, 1997; Wilson, 2005; Inglehart, 2008). The mechanisms behind postmaterialistic values are embedded in materialistic saturation is reached, a person will develop higher expectations and search for satisfaction in "other realms", beyond purely materialistic ones.

To study the value set, Inglehart index is commonly used by research institutions and national organizations. The index is constructed based on how participants prioritise their goals. Available empirical research on value set demonstrate a considerable heterogeneity between countries in the share of people holding postmaterialistic views, which reflects both the economic crises in the last four decades and general economic developments of each country (Inglehart, 2008). In the regional context of Western Europe, according to the survey data as of 2006, people holding postmaterialistic views have outnumbered those with materialistic ones (Inglehart, 2008). While some may attribute value change to rising education opportunities and change in age pyramid, both of which could alter the value preferences of respondents (Moore, 2003), empirical research supports Inglehart's approach, showing that in every age or educational group, those raised in relatively prosperous families are most likely to emphasize postmaterialistic items (Inglehart, 1981, 2008; Darren and Davenport, 1999; Wilson, 2005).

In a similar manner to the trend registered for Western Europe, studies of value set in Germany have shown gradual changes, namely a growing share of people holding postmaterialistic values and a decreasing share of those who hold materialistic values (Welzer and Inglehart, 2010). According to the World Value Survey<sup>2</sup> which monitors value sets

<sup>&</sup>lt;sup>2</sup> http://www.worldvaluessurvey.org accessed 17.03.2018

worldwide, Germany has a higher share of citizens holding postmaterialistic values than materialistic ones, with the largest share representing mixed value set<sup>3</sup>(Welzer and Inglehart, 2010). The change in value sets has been first recorded between 1946 and 1963, which documented the economic transition of post-war Germany (Inglehart, 1971). Similarly, more recent data showed that since 2004 the share of people holding postmaterialistic values is on the rise.<sup>4</sup>

Applying Inglehart's theory explores whether those who are more likely to express intentions to emigrate differ in their set of values from those who are less likely to express these intentions. Following the theory, those who prioritize materialistic values, may be more likely to prioritize physical sustenance, financial security and safety and may therefore exhibit lower migration intentions as they may be better off staying in Germany as the country has a large and well-paid labour market, supportive welfare system, and political and financial stability. On the contrary, people who prioritize postmaterialistic values, may put more emphasis on self-expression and high levels of subjective well-being and might be more likely to express migration intentions as a way to reach new realms. Furthermore, as those who display postmaterialistic values may put emphasis on tolerance for other groups as well as individual freedom, they might be more likely to accept emigration and resettle in a new community. This paper, therefore, **tests whether people who hold postmaterialistic values are less likely to express likely to exhibit emigration intentions**.

Although the value set may be one of the factors accounting for the difference in emigration intentions, life-satisfaction might also affect such intentions. Taking into account and exploring these relationships may contribute to our understating of the impact of both value sets and life-satisfaction. However, empirical evidence is inconsistent with regard to how life-satisfaction impacts these intentions (Chindarkar, 2012; Otrachshenko and Popova, 2014; Ivlevs, 2014). On the one hand, examination of the relationship between life-satisfaction and emigration intentions indicated an inverted U-shaped relationship between the two variables (Polgreen and Simpson, 2011). Accordingly, high emigration rates were observed not only for those who are less satisfied but also for those who report high life-satisfaction. Reports from Central and Eastern Europe and Central Asia support this argument, showing that higher life-satisfaction in these improving economies leads to an increased probability of reporting higher intentions to migrate (Ivlevs, 2014). One of the reasons for this observed tendency is the fact that people expressing higher satisfaction levels are also more likely to express confidence, optimism, as well as willingness to take advantage of opportunities. Therefore, they may perceive emigration to be less threatening and risky

<sup>&</sup>lt;sup>3</sup> http://www.worldvaluessurvey.org/WVSOnline.jsp accessed 17.03.2018

<sup>&</sup>lt;sup>4</sup> http://www.worldvaluessurvey.org/WVSOnline.jsp accessed 17.03.2018

and hence express intentions to emigrate. On the other hand, some empirical evidence suggest that less satisfied people are more willing to emigrate as they have the most to gain from emigration (Otrachshenko and Popova, 2014). For example, in Latin America those who exhibit migration intentions also report lower life-satisfaction as well as are more likely to be more educated and wealthier (Graham and Markowitz, 2011; Ivlevs, 2014). Immigration patterns of these educated, well-off, but unhappy "frustrated achievers" provide a useful illustration of the complex interaction between wealth, income and life-satisfaction (Ferreri-Carbonell, 2005). The situation is known as the Easterlin's (1974) paradox where an increase in GDP and personal wealth does not always translate into an increase in a person's happiness and higher life-satisfaction. Similarly, data from Germany indicate that despite an increase in household income, the overall levels of life-satisfaction are decreasing (Becchetti and Rossetti, 2009). As such, despite financial prosperity, people may still exhibit low lifesatisfaction and may be more likely to express emigration intentions. Indeed, in their analysis on intentions to migrate of physicians, Pantenburg and colleagues (2018) have found positive association between low satisfaction, and especially low satisfaction with the job, and higher emigration intentions.

Taking into account that German emigrants as well as those who exhibit emigration intentions are more likely to be educated and previously employed (Erlinghagen and Stegmann 2009; Ette and Sauer, 2010), they are more likely to resemble "frustrated achievers". Therefore, it can be hypothesized that who express lower level of life-satisfaction are more likely to also express emigration intentions. This paper, therefore, tests this relationship between life-satisfaction and emigration intentions.

In addition to testing the overall level of life-satisfaction, this paper examines relationship between emigration intentions and various areas of life-satisfaction such as satisfaction with family life, income, dwelling, and job. The decision to do so follows other scholars (van Praag et al., 2003; Frijters et al. 2004; Pantenburg et al., 2018) and rests on assumption that in the context of emigration intentions of these "frustrated achievers," examining variety of life-satisfaction aspect may provide a better description and understanding of the emigration intentions. For example, as was previously mentioned, low satisfaction with the job was found to impact intentions to emigrate for German physicians (Pantenburg et al., 2018). Therefore, including various areas of life-satisfaction such as satisfaction with family life, income, dwelling, and job into the analysis may contribute to our understanding of emigration intentions in the sample.

In addition to life-satisfaction, empirical research demonstrates the role of risk attitudes on emigration intentions, namely that those who express higher emigration intentions also display higher risk tolerance (Jaeger et al., 2010; Williams and Balaz, 2012; Akgüç et al., 2016; Huber and Nowotny, 2018). Including risk attitudes to study migration intentions is not uncommon and follows economic approach to emigration in which migration is an

investment decision under uncertainty (Sjaastad,1962; Chiswick, 1978; Borjas, 1987). Indeed, when considering relocation, a person may face more uncertainties and risks, as he/she has less knowledge about utilities, legislation, and social structures in the country of destination compared to the country of residence. Being tolerant to risk may therefore positively impact migration intentions, as it makes one more willing to accept the insecurity and risks associated with it. Among the definitions of risk tolerance is the higher propensity to engage in behavior that bears the chance of losses (e.g., financial losses) as well as gains (e.g., financial gains). According to empirical research, however, risk attitudes vary by age and gender (Fehr-Duda et al., 2006; Ek et al, 2008; Dohmen et al., 2011; Akgüç et al., 2016). For example, men are more likely to exhibit higher risk tolerance than women, while younger people also exhibit higher risk tolerance than older people. Observing such variation suggests that analysis should take into account the potential impact of age and gender. This paper follows this suggestion, it not only includes gender as a control variable, but also performs the analysis for male and female respondents separately.

The impact of risk tolerance was also observed in the context of regional emigration in Germany. For example, in their research on risk attitudes and emigration intentions, Jaeger and colleagues (2010) analyzed 2000-2006 waves of the SOEP data. In their research they demonstrate a positive association between higher levels of risk tolerance and intentions for regional/international mobility. This paper aims to build on their findings and examine the relationship between emigration intentions and risk attitudes in a more recent timeframe (2009 wave).

In addition to testing general risk attitudes, this paper also examines specific risk attitudes such as risks in financial matters and in occupation, as well as trusting in people. Although not tested empirically, one may speculate about the relationship between emigration intentions and risk attitudes in the aforementioned aspects. For example, higher migration intentions may be attributed to higher willingness to trust in other people, or associated with higher risk tolerance in financial matters. Hence, testing specific risk attributes may shed light on emigration intentions going beyond general risk attitudes, and contribute to the existing literature by identifying risk attitudes that are more likely to explain the variation in emigration intentions.

#### **Data and Methods**

This analysis relies on the data recorded by the Socio-Economic Panel (SOEP). The panel is in operation since 1984, and had recorded data annually for 34 years (waves 1 to 34). The SOEP is a wide-ranging representative longitudinal study of nearly 11,000 private households (SOEP, 2009; Goebel et al., 2019). The information is collected through a questionnaire and distinguishes between two sets of questions. First, the standard set of questions which appears on an annual basis and second, wave-specific set of questions which appears once in several years. While the standard set of questions includes biographic, sociodemographic and employment information, the wave-specific set includes questions such as emigration intentions and value set. For more information on the particularities of the panel see Kroh and Spiess, 2006 and Goebel et al., 2019.

While the panel has been collecting data for over 30 years, the first SOEP questionnaire to include migration-related question for the general population was distributed in 2009, and since then the question reappeared once more during the 2014 wave. While the question appearing only twice is puzzling, given that the panel has been active for almost thirty years, it is not surprising, as the issue of German emigration, referred by some as brain drain (Knerr, 2007; BMF, 2011) became of concern sense late 2000s. For the purpose of this paper, the analysis is performed on the data obtained by merging the 2006 and 2009 waves. The 2009 wave provides the necessary data on emigration intentions as well as all other demographic and socio-economic variables except the data on value set, which was obtained in the 2006 wave. Due to the structure of the panel, merging waves is a commonly applied procedure (SOEP, 2009; Goebel et al., 2019). Merging the data from 2006 and 2009 waves resulted in a larger number of observations for statistical analysis due to lower attrition rate between the two waves.

It should be noted that although the panel is longitudinal, the analysis uses the data in a crosssectional manner, except for the summary statistics of the sample. Merging the data from two waves resulted in a sample of 16,804 observations. However, after adjusting for the missing values and sample characteristics, the sample size reduced to 13,943 observations. First, the sample was restricted to include only German nationals with no migrant background.<sup>6</sup> The deliberate distinction on the basis of migratory experience of the subject or subjects' parents, stems from the fact that migration intentions as well as characteristics of migrants differ significantly between those who do and do not have a migrant background (Gundel and Peters, 2008; Kuhlenkasper and Steinhardt, 2012; BMF, 2015, 2019). Second, although the majority of variables used for the analysis had a rate of missing values lower than 0.30%, the data on Inglehart Index had a higher nonresponse rate (1.04%) as well as a high number of inadequate responses. As a result, a further 1,200 observations on the value set were omitted. The final sample consists of 12,494 observations with 1,274 respondents<sup>7</sup> exhibiting emigration intentions, which is approximately 10% and corresponds to the general emigration rate of the original SOEP sample.

<sup>&</sup>lt;sup>5</sup> The number of observations when merging 2006 and 2014 is 6,959, while the number of observations when merging 2006 and 2009 is 16,621.

<sup>&</sup>lt;sup>6</sup> Spätaussiedler - ethnic Germans, German national with migrant background – born in or outside of Germany to non-German parents, and German nationals without a migrant background (BMF 2015).

<sup>&</sup>lt;sup>7</sup> It should be noted that these numbers differ from the one presented in Table 3 on page 2 because they do not include missing data, which reduced the sample size.

#### Variables

**Migration intentions** is a binary dependent variable. The SOEP survey asks respondents the following question: *"Have you, in recent times, seriously considered moving abroad for an extended period or forever?"*<sup>8</sup>

**Value set** is measured by the standard Inglehart index by querying the respondents to prioritize several goals: "In politics, you can't have everything right away. We now name four goals that can be pursued in political policy. If you had to choose, which of these goals do you see as having first, second, third and fourth priority (in order of importance): A: Maintaining peace and order throughout the country; B: Allowing more influence of citizens in governmental decisions; C: Fighting rising prices; D: Protecting the right to freedom of thought and expression." The outcome is then recorded into three categories: pure materialistic (A and C at the top of the list), pure postmaterialistic (B and D at the top of the list) and mixed values (any other variation).

**Life-satisfaction** is measured on the 11-point scale recorded through the response to the question: "*How satisfied are you with your life, all things considered?*" In a similar manner to the general variable of life-satisfaction, several additional questions record other aspects of persons' satisfaction: satisfaction with work, satisfaction with household income, satisfaction with dwelling, satisfaction with amount of leisure time, satisfaction with personal income and satisfaction with family life. Higher levels on the scale represents higher levels of life-satisfaction.

**Risk attitudes** is measured by an 11-point scale recorded through the response to the question: "*How do you see yourself: as a person that takes risk or not?*" In addition to the general risk attitudes, SOEP also records willingness to take risks in financial matters, willingness to take risks in occupation, and willingness to take risks in trusting other people. Low scores on the scale represent risk-aversion, high scores represent higher risk-tolerance.

**Educational attainment** is recorded as a categorical variable recording the highest education obtained by the surveyed year. These are cumulative categories recoded as secondary, vocational, and university education. Those who obtained diplomas from Secondary (hauptshule), Intermediate (Realschule), Upper secondary (Gymnasium and Gesamtschule), Evening Intermediate school (Abendschule) are recorded as secondary school; those who have attended a Vocational Training year (Berufsgrundbildungsjahr), Vocational school (Berufsfachschule), or Apprenticeships, are recorded as vocational school. Those who have

<sup>8</sup> The survey also queried the respondents: Do you intend to move or emigrate abroad within the next 12 months? This data is excluded from the analysis due to the insufficient number of cases N=97. Descriptive analysis of this small sample exhibits similarity to what is found for the population intending to migrate.

attended Technical College (Fachhochschule), gained a PhD (Promotion), or attended a University, are recorded as university education.

In the final analysis of the data, several other factors are controlled for such as age, gender, presence of a partner or a child, place of residence as of 1989, and personality traits (sometimes referred as the Big 5 that includes extraversion, openness, agreeableness, conscientiousness, neuroticism). Including the place of residence as of 1989 takes into account the economic disparities between West and East Germany, which may not only increase migration intentions but also affect the value set. Similarly, including personality traits on emigration intentions is justified as some personality traits may impact emigration intentions (Jokela, 2008; Šeibokaitė and Endriulaitienė, 2010; Canache et al., 2013; Fouarge et al., 2019), while higher agreeableness and conscientiousness lowered the odds of a move (Tabor et al., 2015).

### **Descriptive Analysis**

As a starting point, it is useful to consider general attributes of the sample and explore characteristics of Germans who reported intentions to emigrate and those who did not. Table 1 provides a detailed portrayal of various demographic estimates of the sample (gender, age, and place of residence as of 1989), educational and occupational characteristics, as well as personality attributes (value set, life-satisfaction, risk attitudes, and personality characteristics). For the cross-sectional analysis, the sample consists of the data from the 2009 wave and value sets from the 2006 wave.

According to descriptive statistics, the population that exhibits intentions to migrate are more likely to be single, younger, reside in West Germany in 1989, as well as likely to be white-collar trainees or self-employed citizens. These results stand in line with the actual migration trends recorded by the national migration office (BMF, 2011; BMF, 2015, 2019) and correspond to what was observed by other researchers (Diehl et al., 2008; Ette and Sauer, 2010).

|                                 |       | Intend to migrate    |             |        | Do not intend to migrate |             |  |
|---------------------------------|-------|----------------------|-------------|--------|--------------------------|-------------|--|
|                                 | Mean  | [95% Conf. Interval] |             | Mean   | [95% Conf. Interval]     |             |  |
|                                 |       | Lower bound          | Upper bound |        | Lower bound              | Upper bound |  |
| <b>Personal characteristics</b> |       |                      |             |        |                          |             |  |
| Age                             | 40.4  | 39.7                 | 41.2        | 53.3   | 53.0                     | 53.6        |  |
| Gender (Men 1, Women 0)         | 0.55  | .52                  | .58         | 0.47   | .457                     | .476        |  |
| Age by Gender (Women)           | 38.7  | 37.6                 | 39.7        | 53.3   | 52.8                     | 53.6        |  |
| Age by Gender (Men)             | 41.9  | 40.9                 | 42.9        | 53.4   | 52.9                     | 53.8        |  |
| Partner                         | 0.59  | .56                  | .62         | 0.73   | .72                      | .74         |  |
| Having children                 | 0.5   | .47                  | .53         | 0.42   | .41                      | .43         |  |
| West Germany 1989               | 0.76  | .74                  | .78         | 0.69   | .68                      | .70         |  |
| Contacts abroad                 | 0.56  | .54                  | .59         | 0.25   | .25                      | .26         |  |
| Lived abroad                    | 0.23  | .20                  | .25         | 0.07   | . 06                     | .07         |  |
| Education attainment            |       |                      |             |        |                          |             |  |
| In School                       | 0.001 | .00                  | .003        | 0.0006 | .0002                    | .0011       |  |
| Secondary School                | 0.07  | .06                  | .08         | 0.11   | .11                      | .12         |  |
| Vocational Training             | 0.54  | .51                  | .56         | 0.56   | .56                      | .57         |  |
| University education            | 0.39  | .36                  | .42         | 0.32   | .31                      | .32         |  |
| Occupational status             |       |                      |             |        |                          |             |  |
| Non-employed                    | 0.07  | .06                  | .09         | 0.1    | .09                      | .11         |  |
| Unemployed                      | 0.07  | .06                  | .09         | 0.05   | .04                      | .05         |  |
| Blue collar                     | 0.15  | .13                  | .18         | 0.24   | .23                      | .25         |  |
| White collar                    | 0.59  | .55                  | .62         | 0.54   | .53                      | .55         |  |
| Civil servant                   | 0.08  | .06                  | .09         | 0.09   | .08                      | .10         |  |
| Trainee                         | 0.04  | .03                  | .05         | 0.02   | .02                      | .02         |  |
| Self-employed                   | 0.13  | .11                  | .16         | 0.11   | .10                      | .12         |  |
| Pensioner                       | 0.02  | .012                 | .036        | 0.26   | .254                     | .270        |  |
|                                 |       |                      |             |        |                          |             |  |
|                                 |       | 1.7                  |             |        |                          |             |  |

#### TABLE 1: SELECTED DESCRIPTIVE STATISTICS

|  |                           | Intend to mig | grate       | Do not intend to migrate  |             |             |
|--|---------------------------|---------------|-------------|---------------------------|-------------|-------------|
| Personality characteristics<br>Life-satisfaction   | Mean [95% Conf. Interval] |               |             | Mean [95% Conf. Interval] |             |             |
|  |                           | Lower bound   | Upper bound |                           | Lower bound | Upper bound |
| General Life Satisfaction                          | 6.7                       | 6.57          | 6.78        | 6.9                       | 6.91        | 6.97        |
| Satisfaction with Work                             | 4.7                       | 4.46          | 4.91        | 3.2                       | 3.10        | 3.27        |
| Satisfaction with Household Income                 | 5.9                       | 5.81          | 6.09        | 6.4                       | 6.41        | 6.49        |
| Satisfaction with Personal Income                  | 5.5                       | 5.36          | 5.66        | 5.9                       | 5.82        | 5.92        |
| Satisfaction with Dwelling                         | 7.4                       | 7.30          | 7.53        | 8                         | 7.97        | 8.03        |
| Satisfaction with Amount of Leisure Time           | 6.5                       | 6.37          | 6.62        | 7.2                       | 7.13        | 7.21        |
| Satisfaction with Family Life                      | 7.2                       | 7.07          | 7.33        | 7.8                       | 7.76        | 7.84        |
| Risk attitudes                                     |                           |               |             |                           |             |             |
| General Risk attitudes                             | 4.6                       | 4.46          | 4.69        | 3.6                       | 3.53        | 3.61        |
| Willingness to Take Risks in Financial Matters     | 2.5                       | 2.35          | 2.60        | 1.8                       | 1.78        | 1.85        |
| Willingness to Take Risks in Occupation            | 4.2                       | 4.07          | 4.38        | 2.4                       | 2.38        | 2.48        |
| Willingness to Take Risks in Trusting Other People | 3.7                       | 3.61          | 3.88        | 3.1                       | 3.1         | 3.18        |
| Inglehart index                                    |                           |               |             |                           |             |             |
| Mixed value set                                    | 0.64                      | .61           | .67         | 0.63                      | .63         | .64         |
| Pure materialistic values                          | 0.13                      | .12           | .15         | 0.23                      | .22         | .24         |
| Pure postmaterialistic values                      | 0.22                      | .20           | .25         | 0.14                      | .13         | .14         |
| Big 5  | 1                         |               |             |                           |             |             |
| Openness to experience                             | 4.7                       | 4.68          | 4.81        | 4.3                       | 4.32        | 4.36        |
| Neuroticism  | 3.8                       | 3.71          | 3.85        | 3.8                       | 3.78        | 3.83        |
| Extraversion                                       | 4.9                       | 4.81          | 4.94        | 4.7                       | 4.71        | 4.75        |
| Agreeableness                                      | 5.2                       | 5.13          | 5.23        | 5.3                       | 5.32        | 5.36        |
| Conscientiousness                                  | 5.7                       | 5.63          | 5.74        | 5.8                       | 5.84        | 5.87        |

Following the descriptive evidence, respondents who identify as single are overrepresented among those who express intentions to emigrate. Such findings are not surprising as scholars have long identified the negative impact of having a partner on emigration intentions and decision (Mincer, 1977; Melzer, 2013; Branden, 2014). At the same time, the percentage of people with children who express intentions to emigrate is higher. Even though the literature suggests a negative impact of children on the migration intentions of household (Zlotkin, 1995; de Jong, 2000; Chort, 2014; Saar, 2016), the presence of couples with children among those who express emigration intentions may be attributed to the particular age structure of this sample: The average age of those who display emigration intentions (both male and female participants) is 40 years, which may suggest a particular stage in the life-cycle – e.g., young families with children.

#### Age and Gender

As can be inferred from the descriptive analysis, those who exhibit migration intentions are on average 13 years younger than those who do not (40 vs. 53 years old respectively). However, once gender is included in the analysis, the data shows that of those who consider emigration, female respondents are on average four years younger than male respondents (38 vs. 42 years old respectively). Note that men are overrepresented in the subsample of those who express emigration intentions.

Figure 1 shows the relationship between various age categories and emigration intentions. The data indicates that the highest intentions to emigrate are recorded in three distinct age groups, 21-30 years, 41-45 years, and 61-65 years. Figure 2 provides a detailed description of emigration intentions by age category and gender. According to the data, female respondents in their 20s and early 30s as well as those between the age 45-50 exhibit highest intentions to emigration. In contrast, male respondents in early 20s and early 40s to 50s express highest migration intentions.

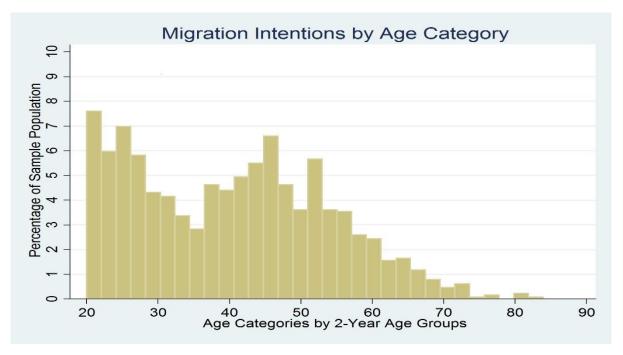
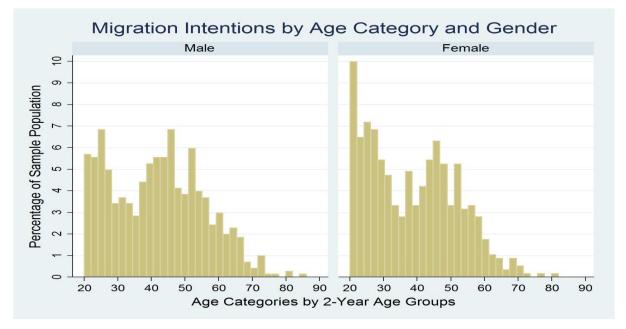


FIGURE 1: MIGRATION INTENTIONS (2009) BY AGE CATEGORY





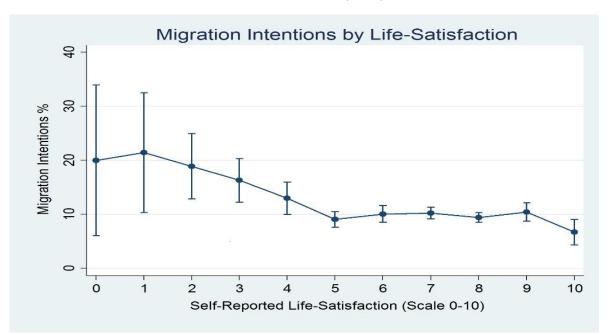
#### **Education and Occupation**

According to the descriptive analysis, the number of people with higher education diplomas are slightly higher among those who express intentions to migrate compared to other groups. At the same time, the number of individuals holding vocational qualifications is similar in both subsamples, although is slightly lower in those who express intentions to migrate. These findings are in line with national migration records, which indicate that German migration is characterized by a higher share of university-educated citizens (BMF, 2015, 2019). There are several possible expitations for this trend. First, higher migration rate of highly educated citizens may be attributed to personal characteristics of this group (ability to finance the move, access to knowledge) or associated with higher demand for qualified and educated personnel in countries of destination. Second, it can be associated with the recognition of German higher education diplomas and work experience which is assumed to promote transferability of skills and practices across borders, and as such may simplify and facilitate emigration.

Within the analysis, it was possible to distinguish between several categories of occupation: unemployed, non-employed (not registered as unemployed, for example, on maternity leave), blue-collar, white-collar, trainee, self-employed and pensioner. Descriptive statistics indicate that people employed in white-collar sectors, trainees, and the self-employed are overrepresented among those who express emigration intentions.

#### Life-Satisfaction

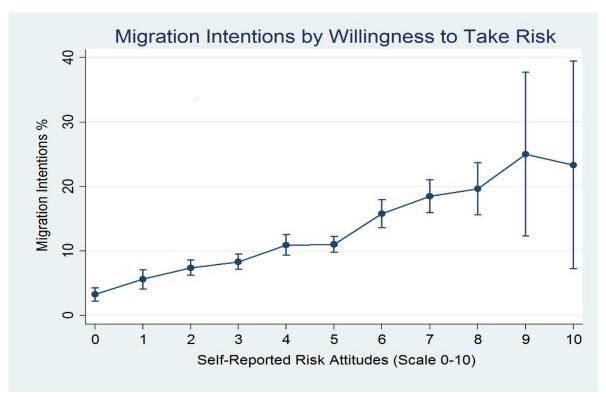
Using descriptive evidence allows examining the relationship between emigration intentions and life-satisfaction. Figure 3 suggests that migration intentions differ by levels of life-satisfaction. In particular, those who exhibit intentions to emigrate have on average a slightly lower life-satisfaction (6.7 vs. 6.9). Furthermore, as shown in Table 1, the two groups also differ in every other aspect of life-satisfaction. Those who exhibit emigration intentions also more likely to exhibit low life-satisfaction in each aspect, except satisfaction with work. In particular, those who express intention to emigrate also report higher average level of satisfaction with work, and lower levels of satisfaction with household and personal income, dwelling, and amount of leisure time and family. Although it is impossible to determine reasons for lower life-satisfaction, it may be of advantage to follow Ivlevs' (2014) discussion on "frustrated achievers". In a similar way to emigrants from Latin America portrayed by Ivlevs, German respondents who express emigration intentions are more likely to hold a degree and be employed while also reporting lower levels of life-satisfaction. It is also important to acknowledge that lower levels of life-satisfaction seem to overlap. Furthermore, higher levels of life-satisfaction remain relatively constant.



#### FIGURE 3: MIGRATION INTENTIONS (2009) BY LIFE-SATISFACTION

#### **Risk Attitudes**

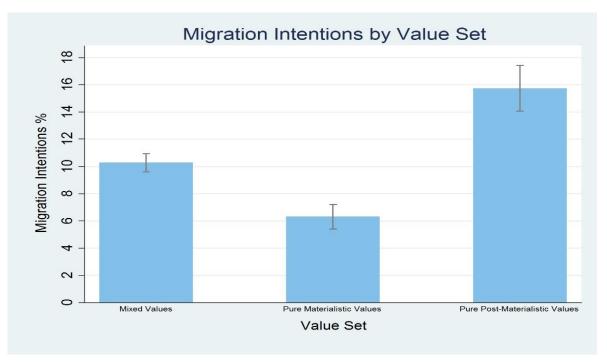
According to the data presented in the descriptive statistics, respondents who express emigration intentions also report having higher risk tolerance (4.6 vs. 3.6). Moreover, examination of aspects of risk tolerance (in financial matters, in occupation, in trusting other people) has also shown that those who exhibit emigration intentions have higher levels of risk tolerance in each aspect. From a theoretical perspective, such a relationship could be explained by the fact that emigration is a risky action, and those who are risk-averse may prefer to minimize the risk by retaining from emigration if possible. Following the argument, one might expect that those who are willing to migrate are more likely to be captured by higher values on the risk-attitude scale. Indeed, Figure 4, presents a frequency distribution of risk attitudes reported by those who express migration and reveals a positive relationship between emigration intentions and risk tolerance.



#### FIGURE 4: MIGRATION INTENTIONS (2009) BY ATTITUDES TOWARDS RISK

#### Value Set

Descriptive statistics provide evidence of the relevance of the postmaterialistic theory for explaining variation in emigration intentions. The number of people holding pure postmaterialistic values is overrepresented among those who express emigration intentions (22% vs 14%), and the opposite is observed for individuals who hold pure materialistic values. Indeed, people holding materialistic values are underrepresented among those who express intentions to migrate (13% vs 23%). Data presented in Figure 5 provides additional information on the frequency distribution of value sets. It is worth noting that among those who express emigration intentions, the postmaterialistic group is larger than the mixed-value one which is, in fact, the most common value group in the whole population (over two thirds of sample respondents have identified themselves to hold a mixed value set).



#### FIGURE 5: MIGRATION INTENTIONS (2009) BY VALUES SET

#### **Longitudinal Descriptive Analysis**

Due to the nature of the SOEP data it is possible to perform longitudinal descriptive analysis for selected variables in respect to emigration intentions. Examining values sets, life-satisfaction and risk attitudes from this perspective adds to our understanding of these variables, and highlights changes and development over time as well as the direction of these change. This section presents longitudinal descriptive analysis of value set (1996 and 2006 years), life-satisfaction, and risk attitudes (2004-2014 years). Furthermore, in order to examine the role of gender, this descriptive data presents analysis for the whole sample as well as male and female respondents separately.

#### Value Set

Since 1984, the Inglehart Index appeared in SOEP several times. Following the unification of Germany, however, the Index was collected only twice: first in 1996 and later in 2006. Among the reasons for SOEP to collect the data using ten-year intervals is the assumption that value set is less sensitive to life events or external developments and therefore remains fairly constant over time (Darren and Davenport, 1999; Kroh, 2009; Inglehart, 2008). Figure 6 presents the distribution of the value set across the sample population in 1996 and 2006. Accordingly, higher intentions to emigrate are exhibited by people who also state to have postmaterialistic values, in both waves. It is worth noting that individuals who hold postmaterialistic values represent the smallest share of the surveyed population. Although this data are descriptive in nature, the

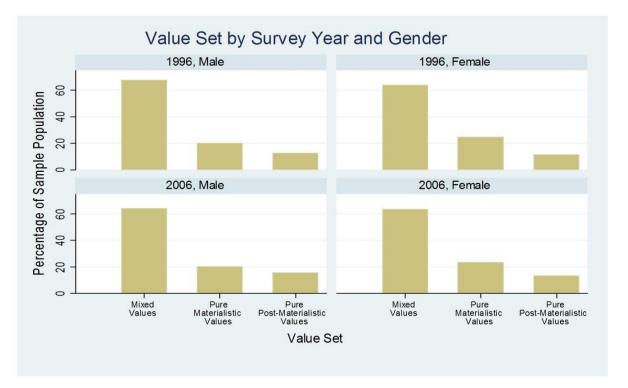
observed pattern supports a possible association between higher emigration intentions and postmaterialistic values.

Migration Intentions by Value Set and Survey Year 2 Migration Intentions % 10 S 0 2006 1996 1996 2006 1996 2006 **Mixed Values** Pure Materialistic Values Pure Post-Materialistic Values

#### FIGURE 6: MIGRATION INTENTIONS (2009) BY VALUE SET AND SURVEY YEAR (1996,

Figure 7 reflects on the gender component of value set. Following the analysis, it became evident that the largest share of the population, regardless of gender, represents a mixed value group, followed by pure materialistic and pure postmaterialistic, in decreasing order. The difference between the two groups is, however, more profound in the female subsample, where an even higher share of female participants reports to hold pure materialistic values. However, the share of female respondents holding postmaterialistic values has slightly increased since 1996, which might indicate a slow change.

2006)



#### FIGURE 7: VALUE SET BY SURVEY YEAR AND GENDER (1996,2006)

#### Life-Satisfaction

Figure 8 presents the overall distribution of life-satisfaction by emigration intentions over the period of 2004-2014. The data indicate that people who exhibit intentions to emigrate and those who do not, have similar average levels of life-satisfaction. This is true for most of the observed period with the exception of 2010. The data indicate a slight divergence between the two groups from 2008, peaking in 2010. Accordingly, those who did not intend to move reported on average a slightly higher life-satisfaction in 2008 and 2009 and experienced a greater decrease in life-satisfaction in 2010 as well as a steeper recovery in 2011. In addition, Figure 9 presents further distinction of emigration intentions and life-satisfaction by gender. As can be inferred, the average life-satisfaction of the two subsamples (those who intend and do not intend to migrate) does not differ by gender.

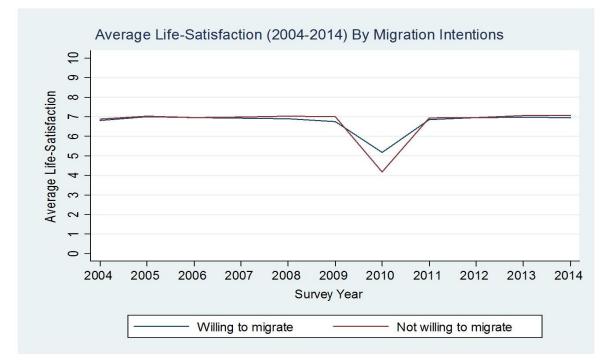
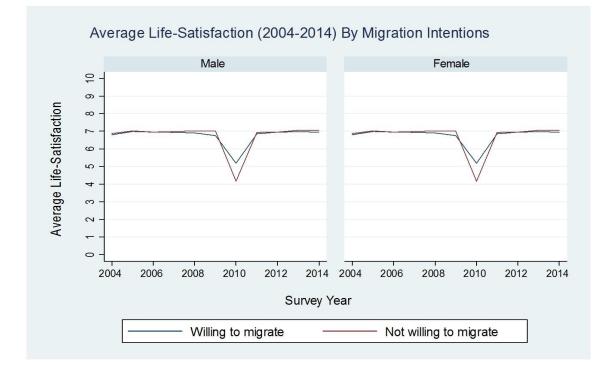


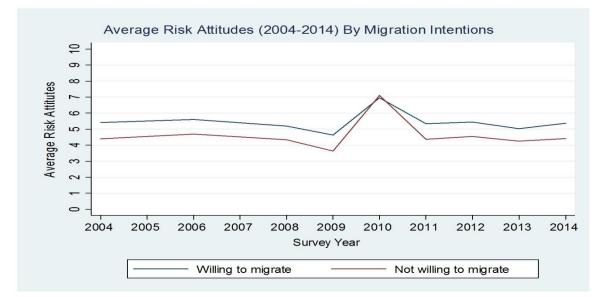
FIGURE 8: AVERAGE LIFE-SATISFACTION (2004-2014) BY MIGRATION INTENTIONS

FIGURE 9: AVERAGE LIFE-SATISFACTION (2004-2014) BY MIGRATION INTENTIONS AND GENDER

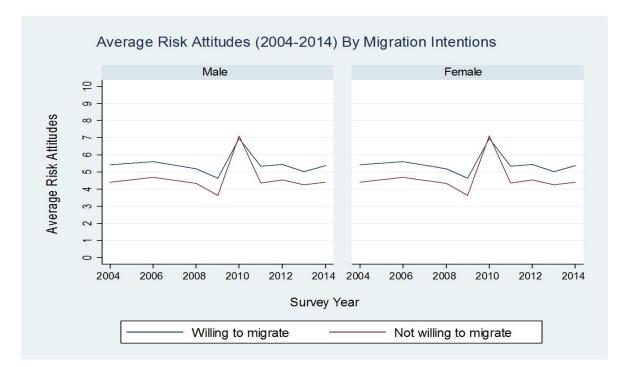


#### **Risk Attitudes**

Figure 10 presents a longitudinal descriptive analysis of the average risk attitude for the period between 2004 and 2014. According to the data, those who express intentions to emigrate display on average a one-point higher risk tolerance (5.5 vs. 4.5) than those who did not express emigration desires. Although the difference in average risk tolerance is consistent with the entire timeframe, the data also demonstrate the impact of an external event on the perception of risk. The data capture the impact of the 2009 economic crisis on risk attitudes of SOEP respondents. Both subsamples exhibited a small decrease in willingness to take risks, followed by a high increase in average levels of risk tolerance in 2010. Even though both groups' scores converge in 2010, respondents who did not express emigration intentions exhibited slightly higher levels of risk aversion. Figure 11 shows that risk attitudes of those who express intentions to emigrate and those who do not, seem not to be affected by gender.



#### FIGURE 10: AVERAGE RISK ATTITUDES (2004-2014) BY MIGRATION INTENTIONS



## FIGURE 11: AVERAGE RISK ATTITUDES (2004-2014) BY MIGRATION INTENTIONS AND GENDER

### **Statistical Analysis**

For the statistical analysis, intentions to emigrate intentions are analysed using logistic regression for dichotomous dependent variables (Rose and Sullivan, 1993; Frees, 2004). This method of analysis overcomes methodological concerns associated with dichotomous outcome (Peng et al., 2002; Long, 2009). Eight models were developed to test the relationship between emigration intentions, value set, risk attitudes, and life-satisfaction, controlling for several biographic and demographic variables. It should be noted that all models also include sample weights to account for differences between the sample and population characteristics.

According to statistical analysis, squared age, which was introduced to account for the case of the non-linear pattern (e.g. life course), is statistically significant across all models and indicates a negative association between age and emigration intentions. Basic Model 1 shows that both having a partner and a child has a negative association. Once controlling the value sets and personality traits, however, the existence of a partner loses its significance and only having a child remained statistically significant (Models 1 to 7). Additional insight is provided when examining Models 7 and 8, demonstrating that having children has a negative association with intentions to emigrate and remains statistically significant only for female respondents.

Statistical analysis provides evidence for the relevance of value sets to explaining variation in emigration intentions. Model 3 shows a positive association between postmaterialistic values and intentions to emigrate, and a negative association for those holding materialistic values. Even when controlling education and personality traits, having postmaterialistic values remains statistically significant, although with a lower level of significance. Additional caution was given to respondents' place of residence as of 1989, which could account for variation in both migration intentions and value sets. Controlling for a place of residence still indicates an association between value sets and migration intentions. In a similar manner, when controlling five aspects of personality traits, positive association remains between intention to emigrate and postmaterialism. Out of five personality traits, only one variable – openness to experience – was significant at 1% level. These findings of positive association between emigration intentions and postmaterialistic values, and a negative association between emigration intentions and materialistic values indicate relevance of the Inglehart theory for emigration intentions. Moreover, after controlling educational attainment, both the positive effect of postmaterialistic values and the negative effect of materialistic values on migration intentions remains statistically significant (Model 3). Such findings are not surprising and stand in line with other research (see de Graaf and Evans, 1996; Inglehart, 2008) showing that those raised in prosperous economic surroundings are more likely to emphasize postmaterialistic values across all educational categories.

Furthermore, Model 3 shows the relationship between risk tolerance and migration intentions, which, after controlling various factors, remained positive and statistically significant. Namely, those who exhibit migration intentions are more likely to be more risk tolerant. In particular, this paper presents a more recent analysis and stands in line with the results of the examination of the SOEP 2000-2006 waves, which also showed a positive association between higher levels of risk tolerance and intentions to emigrate regionally or internationally (Jaeger et, al., 2010). However, in contrast to other studies, this project used not only the general attitude toward risks but also three other subcategories of risk. Models 4 to 6 control three aspects of risk attitudes: willingness to take a risk in occupation, in financial matters, and in trusting people. Once controlling each of the aspects separately, the general risk attitudes become insignificant, while willingness to take risks in occupations remains significant at 1% level through all Models for both genders.

According to analysis in Models 2 to 6, life-satisfaction is shown to have a negative association with emigration intentions. Foremost, the statistical significance of the coefficient shows that those who state higher life-satisfaction are less likely to display emigration intentions. These findings provide further support for the negative association between life-satisfaction and emigration intentions reported in other studies (Otrachshenko and Popova, 2014; Ivnes, 2014). Findings reported here supplement the knowledge of the association between life-satisfaction and emigration intentions in the context of a developed country. In particular, this data provided no support for the theoretical assumptions that emigration from affluent countries is more likely to

stem from higher life-satisfaction. The analysis of the SOEP data demonstrated that the negative relationship between life-satisfaction and emigration intentions in an affluent country is similar to the one observed in less economically developed countries. When controlling several aspects of life-satisfaction, e.g., satisfaction with work, personal and household income, dwellings and family life, the general life-satisfaction variable remained significant, albeit with a lower level of significance through all Models. Moreover, only one of those subcategories of life-satisfaction has significance, namely lower satisfaction with family life is associated with higher emigration intentions. However, Models 7 and 8 indicate that the negative association between life-satisfaction and intentions to emigrate remains statistically significant only for females.

Performing the analysis of the data by gender demonstrated that males and females have different set of factors that are associated with emigration intentions. As presented in Model 7, for male respondents, having materialistic values is negatively associated with emigration intentions while having postmaterialistic values is positively associated with migration (statistically significance at 10% and 5% respectively). Emigration intentions of male respondents are positively associated with several personality traits (Big 5) such as openness to experiences, neuroticism and conscientiousness. In contrast, Model 8 demonstrated that for female respondents there is a different set of factors playing a role in emigration intentions. For example, the presence of children is negatively associated with emigration intentions, statistically significant at 1%. Similarly, higher satisfaction with life also had a negative significant association (at 5%). In contrast to male respondents, only one personality trait – openness to experience – was found to have a positive statistically significant impact on emigration intentions of female respondents.

At the same time, three factors were found to impact both genders: place of residence as of 1989, willingness to take risks in occupation, and openness to experience all show a positive association with emigration intentions.

|                     | Model 1    | Model 2    | Model 3    |
|---------------------|------------|------------|------------|
| VARIABLES           |            |            |            |
|                     |            |            |            |
| Age                 | 1.034*     | 1.024      | 1.007      |
|                     | (0.0205)   | (0.0207)   | (0.0200)   |
| Age squared         | 0.999***   | 0.999***   | 0.999***   |
|                     | (0.000204) | (0.000206) | (0.000201) |
| Gender (Ref. Women) | 1.318***   | 1.190*     | 1.126      |
|                     | (0.129)    | (0.122)    | (0.116)    |
| Partner             | 0.713***   | 0.747***   | 0.819*     |
|                     | (0.0781)   | (0.0835)   | (0.0947)   |
| Child               | 0.649***   | 0.642***   | 0.681***   |
|                     | (0.0688)   | (0.0690)   | (0.0737)   |

TABLE 2: BASIC LOGIT REGRESSION ESTIMATES ON THE INTENTION TO MIGRATE

| Place of Residency (Ref. East Germany)                 | 1.552*** | 1.598*** | 1.625*** |
|--|----------|----------|----------|
|  | (0.181)  | (0.191)  | (0.194)  |
| <b>Education attainment</b><br>(Ref. Secondary School) |          |          |          |
| Vocational Training                                    | 1.125    | 1.090    | 1.014    |
|  | (0.210)  | (0.205)  | (0.195)  |
| University Degree                                      | 1.555**  | 1.569**  | 1.296    |
|  | (0.304)  | (0.307)  | (0.260)  |
| Risk-attitudes   |          |          |          |
| Willingness to Take Risks                              |          | 1.115*** | 1.041    |
|  |          | (0.0294) | (0.0307) |
| Willingness to Take Risks in Occupation                |          |          | 1.131*** |
|  |          |          | (0.0259) |
| Life-satisfaction                                      |          |          |          |
| Satisfaction with Life at Today                        |          | 0.884*** | 0.904*** |
|  |          | (0.0268) | (0.0310) |
| Satisfaction with Family Life                          |          |          | 0.946**  |
|  |          |          | (0.0250) |
| Inglehart index (Ref. Mixed values)                    |          |          |          |
| Pure Materialistic Values                              |          |          | 0.762*   |
|  |          |          | (0.110)  |
| Pure Postmaterialistic Values                          |          |          | 1.292**  |
|  |          |          | (0.164)  |
| Constant   | 0.193*** | 0.344**  | 0.478    |
|  | (0.0914) | (0.182)  | (0.258)  |
|  |          |          |          |

\*\*\* p<0.01, \*\* p<0.05, \* p<0.1

|  | Model 4<br>Basic      | Model 5    | Model 6    | Model 7<br>Male | Model 8<br>Female |
|--|-----------------------|------------|------------|-----------------|-------------------|
| VARIABLES  |                       |            |            |                 |                   |
| •  | 1.010                 | 1.000      | 1.000      | 1.012           | 1.022             |
| Age  | 1.018                 | 1.008      | 1.006      | 1.012           | 1.032             |
| A 1  | (0.0217)              | (0.0223)   | (0.0223)   | (0.0312)        | (0.0359)          |
| Age squared  | 0.999***              | 0.999***   | 0.999***   | 0.999*          | 0.999**           |
| Gender (Ref. Women)                                    | (0.000216)<br>1.287** | (0.000230) | (0.000230) | (0.000314)      | (0.000386)        |
| Gender (Ker. women)                                    | (0.142)               | (0.136)    | (0.136)    |                 |                   |
| Deutereu   | 0.780**               |            | , , ,      | 0.907           | 0.947             |
| Partner  |                       | 0.851      | 0.855      | 0.807           | 0.847             |
| CI:11  | (0.0879)              | (0.101)    | (0.102)    | (0.139)         | (0.136)           |
| Child  | 0.651***              | 0.675***   | 0.681***   | 0.800           | 0.586***          |
|  | (0.0714)              | (0.0751)   | (0.0759)   | (0.119)         | (0.100)           |
| Place of Residency (Ref. East<br>Germany)              | 1.640***              | 1.746***   | 1.719***   | 1.419**         | 2.094***          |
| Germany)   | (0.200)               | (0.211)    | (0.209)    | (0.224)         | (0.385)           |
| <b>Education attainment</b><br>(Ref. Secondary School) |                       |            |            |                 |                   |
| Vocational Training                                    | 1.031                 | 0.999      | 0.972      | 0.887           | 0.990             |
|  | (0.200)               | (0.199)    | (0.193)    | (0.216)         | (0.311)           |
| University Degree                                      | 1.404*                | 1.303      | 1.218      | 1.285           | 0.944             |
|  | (0.282)               | (0.270)    | (0.253)    | (0.330)         | (0.327)           |
| Risk attitudes   |                       |            |            |                 |                   |
| Personal Willingness to Take Risks                     | 1.083***              | 1.011      | 1.012      | 1.009           | 1.031             |
|  | (0.0296)              | (0.0325)   | (0.0324)   | (0.0432)        | (0.0485)          |
| Willingness to Take Risks in Financial                 |                       | 1.013      | 1.012      | 1.040           | 0.967             |
| Matters  |                       | (0.0274)   | (0.0274)   | (0.0351)        | (0.0435)          |
| Willingness to Take Risks in Trusting                  |                       | 1.006      | 1.001      | 0.973           | 1.049             |
| Other People   |                       | (0.0260)   | (0.0262)   | (0.0334)        | (0.0394)          |
| Willingness to Take Risks in                           |                       | 1.126***   | 1.126***   | 1.111***        | 1.137***          |
| Occupation   |                       | (0.0263)   | (0.0263)   | (0.0347)        | (0.0360)          |
| Life-satisfaction                                      |                       |            |            |                 |                   |
| Satisfaction with Life at Today                        | 0.887***              | 0.931*     | 0.928*     | 0.998           | 0.874**           |
|  | (0.0293)              | (0.0362)   | (0.0363)   | (0.0517)        | (0.0466)          |
| Satisfaction with Work                                 | (0.02)3)              | 0.995      | 0.994      | 0.975           | 1.003             |
|  |                       | (0.0160)   | (0.0160)   | (0.0230)        | (0.0217)          |

#### TABLE 3: EXTENSIVE LOGIT REGRESSION ESTIMATES ON THE INTENTION TO MIGRATE

| Satisfaction with Household Income  |           | 0.971    | 0.969    | 1.038     | 0.957    |
|-------------------------------------|-----------|----------|----------|-----------|----------|
| Satisfaction with Household Income  |           |          |          |           |          |
|                                     |           | (0.0303) | (0.0302) | (0.0511)  | (0.0419) |
| Satisfaction with Personal Income   |           | 0.994    | 0.997    | 0.920     | 1.031    |
|                                     |           | (0.0297) | (0.0298) | (0.0479)  | (0.0416) |
| Satisfaction with Dwelling          |           | 0.988    | 0.992    | 0.960     | 1.023    |
|                                     |           | (0.0293) | (0.0294) | (0.0384)  | (0.0460) |
| Satisfaction with Family Life       |           | 0.947*   | 0.949*   | 0.950     | 0.933    |
|                                     |           | (0.0269) | (0.0270) | (0.0350)  | (0.0409) |
| Inglehart Index (Ref. Mixed values) |           |          |          |           |          |
| Pure Materialistic Values           |           |          | 0.793    | 0.700*    | 0.906    |
|                                     |           |          | (0.117)  | (0.140)   | (0.197)  |
| Pure Postmaterialistic Values       |           |          | 1.241*   | 1.460**   | 0.988    |
|                                     |           |          | (0.162)  | (0.255)   | (0.198)  |
| Personality Trait, Big 5            |           |          |          |           |          |
| Openness to Experience              | 1.339***  | 1.306*** | 1.291*** | 1.297***  | 1.281*** |
|                                     | (0.0653)  | (0.0645) | (0.0641) | (0.0947)  | (0.0871) |
| Neuroticism                         | 1.064     | 1.054    | 1.061    | 1.159**   | 0.973    |
|                                     | (0.0498)  | (0.0504) | (0.0509) | (0.0787)  | (0.0637) |
| Extraversion                        | 1.004     | 1.002    | 1.007    | 0.971     | 1.047    |
|                                     | (0.0494)  | (0.0493) | (0.0497) | (0.0646)  | (0.0752) |
| Agreeableness                       | 0.953     | 0.983    | 0.981    | 1.020     | 0.974    |
|                                     | (0.0530)  | (0.0543) | (0.0544) | (0.0722)  | (0.0869) |
| Conscientiousness                   | 1.028     | 1.019    | 1.026    | 1.157*    | 0.885    |
|                                     | (0.0598)  | (0.0636) | (0.0643) | (0.0895)  | (0.0850) |
| Constant                            | 0.0974*** | 0.125*** | 0.132*** | 0.0495*** | 0.270    |
|                                     | (0.0732)  | (0.0955) | (0.101)  | (0.0514)  | (0.291)  |
| Observations                        | 11,516    | 11,516   | 11,516   | 5,517     | 5,999    |

\*\*\* p<0.01, \*\* p<0.05, \* p<0.1

#### **Discussion and Conclusion**

This paper explored intentions to emigrate from one of the affluent countries, Germany, accounting for value set, life-satisfaction and risk attitudes. Analysing emigration intentions of German nationals in the Socio-Economic Panel showed that those who express intentions to emigrate differ in each of these aspects. The analysis stands in line with what was observed in other studies, and provides additional support for the argument that those who express emigration intentions differ from those who are not in various demographic, attitudinal and socio-economic characteristics (Esipova et al., 2011, 2016; van Dalen and Henkens, 2013; Williams et al., 2018; Migali and Scipioni, 2019; Fouarge et al, 2019). However, against the background of these studies, this paper demonstrated that those who express emigration intention also differ in terms of their value sets: those who are less likely to exhibit such intentions are more likely to hold postmaterialistic values.

The statistical analysis of the sample presents these novel findings and shows a statistically significant association between migration intentions and postmaterialistic values controlling personal characteristics, as well as risk attitudes, and life-satisfaction levels. Furthermore, even when controlling education and personality traits, having postmaterialistic values remains statistically significant, albeit at a lower level of significance. These empirical findings contribute to the literature on migration by incorporating Inglehart's theory and linking value sets to intentions to emigrate for the first-time. This theoretical framework (Inglehart, 1981, 2008; Welzel and Inglehart, 2010) suggests that people who grew up in a prosperous country may evaluate emigration in a more positive manner through the acquired value sets. One possible explanation of the positive relationship between emigration intentions and postmaterialistic values could be attributed to people's emphasis on self-expression, self-realization, openness, and tolerance towards out-groups. In light of this discussion and the change in value sets among modern societies, applying this framework is not only relevant but may also provide a novel theoretical framework, which takes into account the value sets and can therefore provide an additional angle for explanation of emigration from affluent countries.

Another focus of the study was the relationship between emigration intentions and lifesatisfaction. The analysis shows that higher life-satisfaction is negatively associated with intentions to emigrate. When controlling several aspects of life-satisfaction, the association remains statistically significant. Furthermore, among aspects of life-satisfaction included in the analysis, only lower satisfaction with family life was associated with higher emigration intentions. These findings provide further support for the negative association between life-satisfaction and emigration reported by other studies (Otrachshenko and Popova, 2014; Ivnes, 2014). However, in contrast to these studies that focused on less economically developed countries characterized by lower standards of living, this analysis of the German sample provides confirmation to the presence of a similar relationship in the context of an affluent country.

When analyzing the relationship between emigration intentions and risk attitudes, the findings mirrors other studies confirming that higher risk tolerance has a significantly positive association with intentions to emigrate. However, in contrast to other studies (Jaeger et al., 2010; Williams and Balaz 2012; Akgüc et al., 2016), this analysis takes into account various risk-related aspects. For example, when accounting for risk attitudes in various fields, the general risk attitudes become insignificant, while willingness to take risks in occupations remains statistically significant at 1% across all models for both genders. It can therefore be suggested that people who are more likely to exhibit emigration intentions are also more likely to exhibit higher risk tolerance associated with occupation. Although the presence of this relationship in the German case has not been established before, it is not surprising: the Germans expressing emigration intentions and the actual emigration trends are characterized by a high share of highly-skilled, employed and work-age people, who identify work-related reasons for emigration (Diehl, at el, 2008; Erlinghagen and Stegmann 2009; BMF, 2015, 2019). Willingness to take risks in occupation may therefore be more appropriate to explain variation in emigration intentions in Germany. These empirical findings contribute to the literature on migration by linking specific risk attitudes (such as risk attitudes in occupation) to emigration intentions, and suggest that using specific risk attitudes may advance our understanding of emigration intentions from affluent countries that are characterized by highly-skilled emigration patterns.

Lastly, statistical analysis of the data indicates the mediating power of gender. For example, analysing the data by gender demonstrates that for female respondents, factors associated with personal and family life (lower satisfaction with life and presence of a child) have a negative impact on emigration intentions. Such findings stand in line with other studies that demonstrate negative impact of family-related aspect on emigration intentions of female respondents (Zlotkin, 1995; de Jong, 2000; Chort, 2014; Saar, 2016). However, for male participants, personality characteristics (personality traits and value sets) are more prominent for emigration intentions. In particular, for male respondents the analysis indicated positive effect of postmaterialist values and the negative effect of materialistic values on emigration intentions.

While these finding demonstrate the link between the value set and emigration intentions, further research is needed to deepen our understanding of this relationship and to develop this theoretical framework further. Moreover, future studies may examine the relationship between the value set and emigration intentions in other settings –such as less economically developed countries – to test the theoretical framework.

#### REFERENCES

ABRAMSON, P. R. & INGLEHART, R. 1987. Generational Replacement and the Future of Post-Materialist Values. The Journal of Politics, 49, 231-241. AHN, N., DE LA RICA, S. & UGIDOS, A. 1999. Willingness to Move for Work and Unemployment Duration in Spain. Economica, 66, 335-357.

AKGÜÇ, M., LIU, X., TANI, M. & ZIMMERMANN, K. F. 2016. Risk Attitudes and Migration. China Economic Review, 37, 166-176.

BECCHETTI, L. & ROSSETTI, F. 2009. When Money Does not Buy Happiness: The Case of "Frustrated Achievers". The Journal of Socio-Economics, 38, 159-167.

BELLEMARE, C. 2007. A Life-Cycle Model of Outmigration and Economic Assimilation of Immigrants in Germany. European Economic Review, 51, 553-576.

BMF 2011. Migrationsbericht des Bundesamtes für Migration und Flüchtlinge im Auftrag der Bundesregierung. Nürnberg: Bundesamt für Migration und Flüchtlinge.

BMF 2015. Migrationsbericht des Bundesamtes für Migration und Flüchtlinge im Auftrag der Bundesregierung (Migrationsbericht 2013). Bundesministerium des Innern.

BMF 2019. Migrationsbericht des Bundesamtes für Migration und Flüchtlinge im Auftrag der Bundesregierung (Migrationsbericht 2016/2017). Bundesministerium des Innern.

BODVARSSON, Ö. B. & VAN DEN BERG, H. 2013. The Economics of Immigration: Theory and Policy, Springer.

BÖNISCH, P. & SCHNEIDER, L. 2010. Why are East Germans not More Mobile? Analyzing the Impact of Social Ties on Regional Migration. Diskussionspapiere. Halle Institute for Economic Research (IWH).

BORJAS GEORGE, J., RICHARD, B. F. & LAWRENCE, F. K. 1996. Searching for the Effect of Immigration on the Labor Market. American Economic Review Papers and Proceedings, 86.

BRANDÉN, M. 2014. Gender, Gender Ideology, and Couples' Migration Decisions. Journal of Family Issues.

BUSCH, O. & WEIGERT, B. 2010. Where Have All the Graduates Gone? Internal Cross-State Migration of Graduates in Germany 1984–2004. The Annals of Regional Science, 44, 559-572.

CHINDARKAR, N. 2014. Is Subjective Well-Being of Concern to Potential Migrants from Latin America? Social Indicators Research, 115, 159-182.

CHISWICK, B. R. 2000. Are Immigrants Favorably Self-Selected? An Economic Analysis. Institute for the Study of Labour (IZA).

CHORT, I. 2014. Mexican Migrants to the US: What do Unrealized Migration Intentions Tell us About Gender Inequalities? World development, 59, 535-552.

CREIGHTON, M. J. 2013. The Role of Aspirations in Domestic and International Migration. The Social Science Journal, 50, 79-88.

DARREN W. & DAVENPORT, C. 1999. Assessing the Validity of the Postmaterialism Index. The American Political Science Review, 93, 649-664.

DE GRAAF, N. D. & EVANS, G. 1996. Why are the Young More Postmaterialist?: A Cross-National Analysis of Individual and Contextual Influences on Postmaterial Values. Comparative Political Studies, 28, 608-635.

DE JONG, G. F. 2000. Expectations, Gender, and Norms in Migration Decision-Making. Population studies, 54, 307-319.

DIEHL, C., MAU, S. & SCHUPP, J. 2008. German Emigration: Not a Permanent Loss of University Graduates. Berlin: DIW

DOHMEN, T., FALK, A., HUFFMAN, D. & SUNDE, U. 2011. The Intergenerational Transmission of Risk and Trust Attitudes. The Review of Economic Studies.

EK, E., KOIRANEN, M., RAATIKKA, V.-P., JÄRVELIN, M.-R. & TAANILA, A. 2008. Psychosocial Factors as Mediators Between Migration and Subjective Well-Being among Young Finnish Adults. Social Science and Medicine, 66, 1545-1556.

ERLINGHAGEN, M. 2016. Anticipation of Life Satisfaction before Emigration: Evidence from German Panel Data. Advances in Happiness Research. Springer.

ERLINGHAGEN, M., STEGMANN, T. & WAGNER, G. G. 2009. Deutschland ein Auswanderungsland. Berlin: DIW. Berlin, The German Socio-Economic Panel (SOEP).

ESIPOVA, N., RAY, J. & PUGLIESE, A. 2011. The Many Faces of Global Migration. Gallup World Poll. Gallup and International Organization for Migration Report.

ESIPOVA, N., SRINIVASAN, R. & RAY, J. 2016. Global Desires to Migrate. Adjusting to a World in Motion: Trends in Global Migration and Migration Policy, 21-57.

ETTE, A. & SAUER, L. 2010. Auswanderung aus Deutschland: Daten und Analysen zur internationalen Migration deutscher Staatsbürger, Springer.

FEHR-DUDA, H., DE GENNARO, M. & SCHUBERT, R. 2006. Gender, Financial Risk, and Probability Weights. Theory and Decision, 60, 283-313.

FOUARGE, D., ÖZER, M. N. & SEEGERS, P. 2019. Personality Traits, Migration Intentions, and Cultural Distance. Papers in Regional Science, 98, 2425-2454.

FREES, E. W. 2004. Longitudinal and Panel Data: Analysis and Applications in the Social Sciences, Cambridge University Press.

FRIJTERS, P., HAISKEN-DENEW, J. P. & SHIELDS, M. A. 2004. Money Does Matter! Evidence from Increasing Real Income and Life Satisfaction in East Germany Following Reunification. The American Economic Review, 94, 730-740.

GOEBEL, J., GRABKA, M. M., LIEBIG, S., KROH, M., RICHTER, D., SCHRÖDER, C. & SCHUPP, J. 2019. The German Socio-Economic Panel (SOEP). Jahrbücher für Nationalökonomie und Statistik, 239, 345-360.

GRAHAM, C. & MARKOWITZ, J. 2011. Aspirations and Happiness of Potential Latin American Immigrants. Journal of Social Research & Policy, 2, 9.

GUNDEL, S. & PETERS, H. 2008. What Determines the Duration of Stay of Immigrants in Germany? International Journal of Social Economics, 35, 769-782.

HADLER, M. 2006. Intentions to Migrate within the European Union: A Challenge for Simple Economic Macro-Level Explanations. European Societies, 8, 111-140.

HUBER, P. & NOWOTNY, K. 2018. Risk Aversion and the Willingness to Migrate in 30 Countries. Working Papers. WIFO

INGLEHART, R. 1971. The Silent Revolution in Europe: Intergenerational Change in Post-Industrial Societies. American Political Science Review, 65, 991-1017.

INGLEHART, R. 1981. Post-Materialism in an Environment of Insecurity. The American Political Science Review, 75, 880-900.

INGLEHART, R. F. 2008. Changing Values among Western Publics from 1970 to 2006. West European Politics, 31, 130-146.

IVLEVS, A. 2014. Happy Moves? Assessing the Impact of Subjective Well-Being on the Emigration Decision. Economics Working Paper Series. University of the West of England

JAEGER, D. A., DOHMEN, T., FALK, A., HUFFMAN, D., SUNDE, U. & BONIN, H. 2010. Direct Evidence on Risk Attitudes and Migration. Review of Economics and Statistics, 92, 684-689.

KNERR, B. 2007. Economic Crisis and International Labour Migration: Costs and Benefits in Germany. Migración Y Desarrollo, 8, 24-47.

KROH, M. & SPIEß, M. 2006. Documentation of Sample Sizes and Panel Attrition in the German Socio Economic Panel (SOEP)(1984 until 2005). Data Documentation. DIW. Berlin, The German Socio-Economic Panel (SOEP).

KUHLENKASPER, T. & STEINHARDT, M. F. 2017. Who Leaves and When? Selective Outmigration of Immigrants from Germany. Economic Systems, 41, 610-621.

LIEBAU, E. & SCHUPP, J. 2011. Considering Emigration: German University Graduates Are Moving Abroad - But Only Temporarily. DIW Berlin, The German Socio-Economic Panel (SOEP).

LONG, J. S. 2009. Group Comparisons in Logit and Probit Using Predicted Probabilities. Department of Sociology, University of Indiana.

MARKS, G. N. 1997. The Formation of Materialist and Postmaterialist Values. Social Science Research, 26, 52-68.

MELZER, S. M. 2013. Why Do Couples Relocate? Considering Migration from East to West Germany. European Societies, 15, 423-445.

MIGALI, S. & SCIPIONI, M. 2019. Who's About to Leave? A Global Survey of Aspirations and Intentions to Migrate. International Migration, 57, 181-200.

MINCER, J. 1977. Family Migration Decisions. National Bureau of Economic Research Cambridge.

OECD 2015. Talente im Ausland: Ein Bericht über deutsche Auswanderer. OECD.

OTRACHSHENKO, V. & POPOVA, O. 2014. Life (Dis)Satisfaction and the Intention to Migrate: Evidence from Central and Eastern Europe. The Journal of Socio-Economics, 48, 40-49.

PANTENBURG, B., KITZE, K., LUPPA, M., KÖNIG, H.-H. & RIEDEL-HELLER, S. G. 2018. Physician emigration from Germany: insights from a survey in Saxony, Germany. BMC health services research, 18, 341.

PENG, C.-Y. J., LEE, K. L. & INGERSOLL, G. M. 2002. An Introduction to Logistic Regression Analysis and Reporting. The Journal of Educational Research, 96, 3-14.

POLGREEN, L. & SIMPSON, N. 2011. Happiness and International Migration. Journal of Happiness Studies, 12, 819-840.

REMHOF, S. 2008. Auswanderung von Akademikern aus Deutschland. Grunde, Auswirkungen und Gegenmaßnahmen. Tectum Verlag Marburg.

ROSE, D. & SULLIVAN, O. 1993. Introducing Data Analysis for Social Scientists, Open University Press.

SAAR, M. 2016. Individualisation of Migration from the East? Comparison of Different Socio-Demographic Groups and Their Migration Intentions. Studies of Transition States and Societies, 8, 45-59.

SJAASTAD, L. A. 1962. The Costs and Returns of Human Migration. Journal of Political Economy, 70, 80-93.

SOEP 2009. Time Series on Selected Indicators about "Living in Germany". SOEP monitor 1984-2008. DIW Berlin, The German Socio-Economic Panel (SOEP).

STAUDER, J. 2018. (Why) Have Women Left East Germany more Frequently than Men? Heidelberger Jahrbücher Online, 3, 73-97.

TJADEN, J., AUER, D. & LACZKO, F. 2019. Linking Migration Intentions with Flows: Evidence and Potential Use. International Migration, 57, 36-57.

UEBELMESSER, S. 2006. To Go or Not to Go: Emigration from Germany. German Economic Review, 7, 211-231.

VAN DALEN, H. P. & HENKENS, K. 2008. Emigration Intentions: Mere Words or True Plans? Explaining International Migration Intentions and Behavior. Explaining International Migration Intentions and Behavior

VAN DALEN, H. P. & HENKENS, K. 2009. Invisible Barriers in International Labour Migration: The Case of the Netherlands.

VAN DALEN, H. P. & HENKENS, K. 2013. Explaining Emigration Intentions and Behaviour in the Netherlands, 2005–10. Population Studies, 67, 225-241.

VAN PRAAG, B. M. S., FRIJTERS, P. & FERRER-I-CARBONELL, A. 2003. The Anatomy of Subjective Well-Being. Journal of Economic Behavior & Organization, 51, 29-49.

VERWIEBE, R., MAU, S., SEIDEL, N. & KATHMANN, T. 2010. Skilled German Migrants and Their Motives for Migration Within Europe. Journal of International Migration and Integration, 11, 273-293.

WILLIAMS, A. M. & BALÁŽ, V. 2012. Migration, Risk, and Uncertainty: Theoretical Perspectives. Population, Space and Place, 18, 167-180.

WILLIAMS, A. M., JEPHCOTE, C., JANTA, H. & LI, G. 2018. The Migration Intentions of Young Adults in Europe: A Comparative, Multilevel Analysis. Population, Space and Place, 24.

WILSON, M. S. 2005. A Social-Value Analysis of Postmaterialism. The Journal of Social Psychology, 145, 209-224.

ZLOTNIK, H. 1995. Migration and the Family: The Female Perspective. Asian and Pacific Migration Journal, 4, 253-271.