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Life satisfaction of immigrants: Does cultural assimilation matter?

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SOEP – The German Socio-Economic Panel Study at DIW Berlin

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Life satisfaction of immigrants: does cultural assimilation matter?*

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Abstract

We empirically assess the relationship between cultural assimilation and subjective well-being of immigrants by using the German Socio-Economic Panel, a longitudinal dataset including information on both the economic and non economic conditions of the respondents. We find that the more immigrants identify with the German culture and fluently speak the national language, the more they report to be satisfied with their lives. This result is robust to several potential confounding factors, including a large number of individual variables (demographic, educational, social, economic and health), labour market outcomes and the external social conditions of the immigrant.

JEL Codes: J15, I31, Z10, F22.

Keywords: assimilation, identity, life-satisfaction, immigration.

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1 Introduction

The cultural assimilation of immigrants represents one of the hottest issues for national policy-makers. The social sustainability of immigration phenomena and the possibility for destination countries to benefit from the social and economic contribution of immigrants crucially depend on the full integration of the foreign-born population in the host society. In the European Union (EU), immigration represents an even more important phenomenon. According to the latest OECD International Migration Outlook (OECD, 2013), the increase in migration flows in 2011-2012 has been largely driven by people moving within the EU, with Germany being the main destination country. Although this immigration wave is considered to be a temporary phenomenon, mainly linked to the global economic downturn, its effects on the social and economic life of the host countries might be long-lasting, as the recent German history clearly shows.¹

When individuals migrate to a new country, they carry with them resources, habits and experiences from their home country. On the one hand, they bring valuable productive inputs (including labour force, skills and other sources of human capital) which may generate substantial economic returns for the host country. On the other hand, they enter in the new society with (potentially) different cultural backgrounds: language, religion, (economic and social) values are among the cultural characteristics that are likely to qualify the experience of immigrants in the host country. For immigration to be socially viable and economically effective, the issue of cultural assimilation becomes crucial. On the 16th of October 2010, during a meeting of the younger members of the Christian Democratic Union, the German prime minister Angela Merkel contributed to the controversial debate on multiculturalism in her country by saying that *"the approach [to build] a multicultural [society] and to live side-by-side and to enjoy each other... has failed, utterly failed."*²

Unfortunately, the cultural exchange triggered by migration flows is sometimes associated with discrimination and segregation, which in turn surely exert detrimental (social and eco-

¹Germany was the most involved EU country in the large intra-European displacement that followed World War II. Also in that case, the country's massive immigration inflows were seen as important temporary sources of low skilled workers to sustain the rapid industrialization process. However, a wide portion of such immigrant population settled down permanently and drove a second wave of immigration by family reunification (see Frattini and Dustmann, 2013).

²See, <http://www.bbc.co.uk/news/world-europe-11559451>.

Similar worries on the cultural dissimilation of immigrants were expressed by both the English prime minister, David Cameron, and the former French president, Nicolas Sarkozy. See, http://www.nytimes.com/2011/02/06/world/europe/06britain.html?_r=0

nomic) effects on both natives and immigrants. Concerning natives, by analysing data from the National Identity Survey during the period 1995-2003, Bianchi et al. (2012) report that the majority of the natives in OECD countries express worries about the impact of migration inflows on social security, with the proportion of respondents in line with this view ranging from a low of 40% in the United Kingdom to a high of 80% in Norway (see also Martinez and Lee, 2000; Bauer et al., 2001).³ As regards immigrants, there is a vivid literature in psychology and sociology that analyses the negative effects of perceived discrimination and cultural dissimilation on social stress and mental health (Thomas and Hughes, 1986; Vega and Rumbaut, 1991; Rumbaut, 1994; Finch et al., 2000; Taylor and Turner, 2002; Sellers et al., 2003; Hughes and Demo, 1989).

As the numerous episodes of cruel race riots in major European countries clearly suggest,⁴ neglecting the effects of cultural dissimilation of immigrants leads to unsustainable social conditions and inflicts substantial economic losses to the society of the host country. While the literature has extensively analysed the effects of migration (in/out) flows on the equilibrium conditions in the labour market of the host country (Harris and Todaro, 1970; Borjas, 1994; Ortega, 2000), only recently social scientists have started recognizing the economic value of cultural diversity and harmonization between natives and immigrants (among others, see Ottaviani and Peri, 2006; Bisin et al., 2010) and the importance of cultural, linguistic and ethnic homogeneity in determining natives' openness towards immigrants (Card et al., 2012).

In this paper, we take the perspective of immigrants and we study the relationship between cultural assimilation and their level of subjective well-being. We mainly draw data from ten waves of the German Socio-Economic Panel (SOEP), a longitudinal dataset including information on both the economic (income and labour status) and non economic (demographic, educational and health) conditions of immigrants in Germany. More importantly for the aim of the paper, the questionnaire also includes a set of questions in which immigrants are asked to self-report on a 5-point scale their assimilation to the culture of the host country: the perceived

³Card et al. (2012) measure the relative importance of economic and compositional concerns (social tensions, the importance of shared religious beliefs, language, traditions and customs) in forming opinions about immigration policies in European countries. The authors find that compositional concerns are substantially more important than economic concerns in explaining variation in individual attitudes toward immigration policies.

⁴For the German experience, see the article "German Turkish minority: Two unamalgamated worlds" (<http://www.economist.com/node/10958534>). For the French situation, "An underclass rebellion" (<http://www.economist.com/node/5138990>). Finally, see the article "Immigration in Italy: Southern misery" appeared on the website of the Economist (<http://www.economist.com/node/15271071>) for a cruel race riot occurred in Italy in 2010.

closeness with the German and their native identity as well as their proficiency with the German and their native language. Thus, we depart from the large empirical literature focusing on indirect measures such as the wage gap between natives and immigrants and the time since migration (see Chiswick, 1978; Carliner, 1980; Pischke, 1992; Licht and Steiner, 1994; Schmidt, 1993, 1997; Bauer et al., 2005; Constant and Massey, 2005; Fertig and Schurer, 2007; Gundel and Peters, 2007) and rely on a more direct and subjective measure of perceived assimilation

Of course, using self-reported measures of well-being and cultural assimilation raises additional methodological issues that are mainly related to the effects of unobserved individual heterogeneity on the econometric estimates. In this respect, the large number of years in which respondents are followed over time allows us to control for differences in reporting styles across respondents and unobserved personality traits.

Our study is not the first to use subjective measures of cultural assimilation as main determinants of living conditions of immigrants. By using the SOEP dataset, Casey and Dustman (2010) study the relationship between labour market outcomes (income and labour force participation) and the extent to which immigrants identify with the culture of the host country rather than that of the own country. Their findings show a strong transmission of identity between generations of immigrants but only weak (and non significant) effects of cultural assimilation on economic outcomes. Similarly, by combining information on language proficiency, ethnic self-identification and other individual domains contained in the SOEP dataset, Constant and Zimmermann (2008) define a subjective measure of the intensity of immigrant's ethnic identity, the *ethnosizer*, and use it to classify migrants into four states: assimilation, integration, marginalization, and separation. The authors find that the measure mainly depends on pre-migration characteristics and is exogenous to the work intensity of immigrants. Moreover, a number of other studies (Constant et al. 2006, Zimmermann, 2007, and Constant et al. 2009, Constant and Zimmermann, 2007) report a positive and significant impact of cultural assimilation on economic behavior (work probability, earnings, home ownership).

While motivated by the same interest for the effects of the cultural assimilation, we depart from the previous references as we believe that labour outcomes only provide a partial description of the conditions of immigrants in the host country. Indeed, as recognized by the economic literature (see Frey and Stutzer, 2002a and 2002b; van Praag and Ferrer-i-Carbonell, 2004; Bruni and Porta, 2005; Dolan et al., 2008 for surveys), *“money is not enough to make*

people happy” and in addition to economic factors, there are non-economic dimensions that play a crucial role in affecting subjective well-being.

We find a positive and strong relationship between cultural assimilation and immigrants’ subjective well-being. Indeed, while identifying with the culture of the own country does not play a significant role, the self-reported level of life satisfaction is positively and significantly associated with the extent to which immigrants identify with the German culture and are able to communicate in the language of the host country.

Our main result is robust to different specifications that account for several potential confounding factors. First, we control for a large number of individual dimensions, including the demographic, educational, social, economic and health conditions of the respondent. In particular, the positive association between cultural assimilation and life satisfaction remains strong even after controlling for the economic dimensions (employment status and income of the immigrant) considered by the above-mentioned literature. Our findings suggest that, on top of labour market conditions, there is a significant and unexplored linkage between the life satisfaction of immigrants and their perceived cultural assimilation. Second, we investigate the interplay between cultural assimilation and time from immigration (Safi, 2010; Gundel and Peters 2007; Herrero et al, 2011) to assess whether the effect of cultural assimilation on life satisfaction differs between “fresh” immigrants - who are more likely to perceive the differences between their native and the German cultures -, “long stay” - who have been exposed to a sufficiently long cultural assimilation process since their arrival - and second generation immigrants. Interestingly, we find that German identity is significantly associated with the level of life satisfaction of “long stay” and second generation immigrants, only. For “fresh” immigrants instead, we detect a negative and significant relationship between their subjective well-being and the extent to which they feel identified with their native culture confirming the potential difficulties experienced by immigrants when exposed to the (different) culture of the host country.

Third, we assess whether our result is mediated by the external social conditions of immigrants in Germany as well as by their concerns about the foreigners’ situation in Germany. The former category includes a set of regional controls that capture the contribution of the immigrants to the society where they live: the percentage of immigrants on the total population in the region, the percentage of (un)employed immigrants on the total (un)employed

population in the region. The second category represents a proxy for perceived discrimination as well as lack of economic aspirations of immigrants. While estimates of these variables are significant and exhibit the expected signs, their inclusion in the main specification does not alter the magnitude of the relationship between German identity and life satisfaction.

The rest of the paper is organized as follows. Section 2 introduces the data and the empirical strategy, Section 3 presents the estimation results and Section 4 concludes.

2 Data and empirical strategy

To study the relationship between cultural assimilation and immigrants' subjective well-being, we draw data from the German Socio-Economic Panel (SOEP), a longitudinal survey which has been collecting information on the socio-economic status, health and well-being of private households since 1984 (see Wagner et al., 2007). One of the interesting aspects of the survey is that it oversamples the resident migrant population in Germany, offering a unique source of information on the living conditions of immigrants over a long period of time.

Subjective well-being (SWB) is captured by the question "How satisfied are you with your life, all things considered?", which has been extensively used in happiness research. Responses range on a scale from 0 "completely dissatisfied" to 10 "completely satisfied". To measure cultural assimilation, we rely on direct information on immigrants' sense of identity with the home and host country, together with their language proficiency in their native language and in German. Following Casey and Dustmann (2010) we define German and native identity on the basis of two questions on how strongly German and foreign immigrants feel on a scale from 1 (not at all) to 5 (completely). Writing and speaking skills are also reported on a five-point scale from 1 (no knowledge at all) to 5 (very good knowledge). We measure language proficiency as the average between the writing and speaking scores.

Figures 1 and 2 show the density of life satisfaction by strength of sense of identity with Germany and the native country respectively, where strong corresponds to the categories "mostly" and "completely" and weak to the others. The probability mass is more concentrated at high satisfaction levels for those with strong identification with the host country than for those with weak German identity. Interestingly, the contrary is true for native identity: the densities in Figure 2 look quite similar but that for individuals with weak home identity is more

concentrated towards high levels of life satisfaction.

[FIGURES 1 AND 2 ABOUT HERE]

As we show in Figure 3, the life satisfaction gap between natives and immigrants, which has been documented in the literature (Baltatescu, 2007; Amit, 2010; Bartram, 2010), depends on the level of cultural assimilation of immigrants and disappears for those who feel completely integrated in the German society.

[FIGURE 3 ABOUT HERE]

Although these figures seem to confirm the presence of a positive relationship between cultural assimilation and immigrants' subjective well-being at a descriptive level, a more formal analysis is needed to take possible confounding factors into account.

In our empirical analysis we focus on first and second generation immigrants and we estimate a linear panel data model with individual and time fixed effects:

$$SWB_{i,t} = \alpha_i + \alpha_t + \beta'x_{it} + \gamma'cultural_assimilation_{it} + \varepsilon_{i,t} \quad (1)$$

$$\nabla i = 1, \dots, n \quad \text{and} \quad \nabla t = 1, \dots, T$$

where $i = 1, \dots, n$ indicates individuals, $t = 1, \dots, T$ the survey year and x_{it} is a vector of control variables.

Individual and time fixed effects (FE) allow us to control for time invariant unobserved individual heterogeneity and time related common shocks. The first component in particular, i.e. individual FE, is crucial in order to control for differences in reporting styles across respondents (Angelini et al., 2014). Indeed, a relevant methodological issue in the literature is that measures of life satisfaction might not be interpersonally comparable if different individuals interpret and use response categories for the same subjective question in different ways, a phenomenon known as *differential item functioning* (Holland and Wainer, 1993). As long as the reporting style used by each respondent does not vary over time, individual fixed effects will account for this bias. In addition, through individual FE we are able to control for every unobserved factor that refers broadly to the "character" of the individual, that does not vary over time and that is likely to affect both self-reported life satisfaction and our subjective

measures of cultural assimilation, such as personal traits, optimism, religion and ethnicity.⁵

Notice that by employing a linear specification, we treat life satisfaction as a cardinal rather than as an ordinal construct. The advantages of this choice are that we can carry out the fixed effects analysis via the "within" estimator on the whole sample⁶ and that the results are easier to interpret (see Clark et al., 2008, for a discussion). From a practical point of view, it has been shown that assuming cardinality or ordinality of life satisfaction has no significant effect on the results (Ferrer-i-Carbonell and Frijters, 2004).

The individual characteristics we control for when estimating the relationship between life satisfaction and cultural assimilation are demographics, health and socio-economic status. The demographic variables include a quadratic polynomial in age,⁷ the number of children, a dummy that takes value 1 if the individual is married and 0 otherwise, a dummy identifying divorced people, another defining whether a person is a widow or not. We measure the objective health status of the individual through the number of annual doctor visits and a dummy indicating whether the person spent at least one night in hospital in the previous year. Finally, the set of variables aimed at defining the socio-economic status of the individual include income and dummies for whether the individual has a full-time job, a part-time one or is undergoing a program of vocational training (the residual category representing individuals that are not working at all).

Table 1 presents descriptive statistics for all the variables used in the regressions. The immigrants in our sample are prevalently married (72.2%) and have one child on average. 58.3% of them are working either full-time or part-time, 3.7% are in vocational training, while the remaining 38% is out of the labour force. The average immigrant is aged 38.9 and went to the doctor between 3 and 4 times in the previous year. Our final sample contains an unbalanced panel of 22,636 observations (6,167 individuals) from 10 waves of the survey over a time period of 18 years (1985, 1986, 1987 and every two years until 2003 except 1993).⁸

⁵Potential endogeneity due to omitted variables is thus strongly mitigated by the use of individual fixed effects and the sole source of endogeneity remaining uncontrolled derives from possible reverse causality in the dynamics of cultural assimilation and life satisfaction. Indeed, it is possible that, *ceteris paribus*, being more satisfied with life makes immigrant more able to assimilate with the culture of the host country, which would cause an upward bias in our estimates, as in Casey and Dustmann (2010). However, we believe this bias to play only a marginal effect on our results.

⁶With fixed effects ordered logit we would lose respondents whose level of life satisfaction does not change over time (see Ferrer-i-Carbonell and Frijters, 2004).

⁷Because including at the same time individual fixed effects, year fixed effects and age create an obvious identification problem, we impose the restriction that the first two years (1985 and 1986) are equal to each other (i.e. we drop one additional time dummy from the equation).

⁸We select only the years in which we have information on our measures of cultural assimilation.

[TABLE 1 ABOUT HERE]

In the second part of the analysis, we repeat the estimation on three subsamples of immigrants, defined on the basis of their time since immigration, to assess whether the relationship between cultural assimilation and life satisfaction differs between “fresh” immigrants - who are more likely to perceive the differences between their native culture and the German one -, “long stay” - who have been exposed to a sufficiently long cultural assimilation process since their arrival - and second generation immigrants. We define "fresh" immigrants as those who have been in Germany for less than 10 years, "long stay" as those who migrated to Germany more than 10 years earlier and second generation immigrants those who have only an indirect migration background.

Finally, we check the robustness of our results when controlling not only for individual characteristics but also for external social conditions. In particular, one could argue that spatial effects driven by regional differences in openness towards the foreign-born population determine differences in life satisfaction of immigrants, rather than a direct link between subjective perceptions of cultural assimilation and their subjective well-being. In order to understand the relative importance of these two mechanisms, we thus augment our prior specification to include the penetration of immigrants in each German region. To this aim, we use data collected by Eurostat for the European Labour Force Survey and aggregated at the regional level.⁹ In particular, we construct indexes by region and year for the penetration of immigrants, defined as the percentage of immigrants on the total population. In addition, we believe that not only the general openness of the region towards foreign born could affect their life satisfaction, but also the contribution that immigrants potentially give to the local society might affect the interplay between cultural assimilation and immigrants' life satisfaction. We thus split the general index mentioned above into penetration of (un)employed immigrants, defined as the percentage of (un)employed immigrants on the total un(employed) population. Our prior on this is that if immigrants are contributing actively to the host society with their labour force, the society itself is more open towards them, making non-natives feel more accepted overall. Since these data are available only from 1995 onwards, when we introduce them in the analysis

⁹The regions correspond to the NUTS1 classification: Baden-Württemberg (DE1), Bavaria (DE2), Berlin (DE3), Brandenburg (DE4), Bremen (DE5), Hamburg (DE6), Hessen (DE7), Mecklenburg-Vorpommern (DE8), Lower Saxony (DE9), North Rhine-Westphalia (DEA), Rhineland-Palatinate (DEB), Saarland (DEC), Saxony (DED), Saxony-Anhalt (DEE), Schleswig-Holstein (DEF), Thuringia (DEG).

our sample drops to 11,262 observations (4,444 individuals). On average, immigrants represent about 10% of the total population and 21% (9%) of the unemployed (employed) population in Germany.

[FIGURE 4 ABOUT HERE]

Overall, the regions hosting more immigrants relative to their population are concentrated in the South-West part of Germany, namely the richest area of the country. Instead, probably due to their historical heritage characterized by closeness towards external influences as well as the renewed strength of anti-immigration political parties, the North-East regions display a very low penetration of immigrants.

When focusing on the most recent years, in SOEP we have also information on the extent to which immigrants are concerned about the foreigners' situation in Germany. Our data show that 32.8% of them are very concerned.

3 Results

Our main estimation results are presented in Table 2. In column (1) we start by estimating a life satisfaction equation in which we control for the standard determinants of subjective well-being. Our findings are in general consistent with the literature and confirm the importance of the economic condition in determining the well-being of immigrants, as individuals with higher income and in full-time employment are on average better off. However, they also show that non-economic factors play a crucial role. In particular, bad health conditions are strongly and negatively related to life satisfaction. As for demographics, we find a U-shaped relationship between age and life satisfaction, with a minimum around age 52 (Blanchflower and Oswald, 2008). In addition, being married rather than singles is positively associated with life satisfaction, while the number of children does not seem to have an impact on the well-being of immigrants.

In columns (2) and (3) we move to the main focus of our analysis, which is the relationship between cultural assimilation and subjective well-being of immigrants. For this reason, we introduce measures of ethnic identity of immigrants (German and native identity) and language proficiency. The results indicate that, controlling for traditional determinants of life satisfaction and for individual and time fixed effects, stronger cultural assimilation is associated to

higher levels of life satisfaction: while the sense of belonging to the German culture seems to be very important, identifying with the native culture does not have any significant effect on life satisfaction.¹⁰ At the same time, being able to interact with local citizens is very important; indeed German proficiency has a strong and significant positive effect on the well-being of immigrants, even controlling for socio-economic conditions and labour market status. As explained in the previous section, it is important to note that our results are not driven by the fact that cultural assimilation and life satisfaction might be spuriously correlated due to their subjective nature, as we control for time invariant personality traits and response styles through the inclusion of individual fixed effects.

[TABLE 2 ABOUT HERE]

In Table 3 we repeat our analysis on three sub-samples that are defined according to the migration background to analyse the interplay between cultural assimilation and time from immigration (Safi, 2010; Gundel and Peters, 2007; Herrero et al., 2011). We define “fresh” immigrants as those who have been in Germany for less than 10 years, “long stay” as those who migrated to Germany more than 10 years earlier and second generation immigrants those who have only an indirect migration background. Interestingly, we find that German identity is significantly associated with the level of life satisfaction of “long stay” and second generation immigrants only. For “fresh” immigrants instead, we detect a negative and significant relationship between their subjective well-being and the extent to which they feel identified with their native culture, confirming the potential difficulties experienced by immigrants when exposed to the (different) culture of the host country. This result suggests that policies promoting cultural assimilation might have an effect especially in the long-run.

[TABLE 3 ABOUT HERE]

Finally, in Table 4 we check the robustness of our results when we introduce controls for the social conditions in which immigrants live. As explained earlier, these variables derive from the European Labour Force Survey dataset and vary by region (the aggregation is according to the NUTS1 European territorial classification) and year. Unfortunately data from the European

¹⁰German and native identity are negatively correlated. If we introduce them separately in the estimation (either one or the other), native identity has a very small negative and significant effect on life satisfaction, while the coefficient on German identity remains unaltered.

Labour Force Survey are only available from 1995 onwards and thus this second part of the analysis is restricted to a subsample of the SOEP that refers to more recent years. When focusing on the most recent years, we are also able to control for perceived discrimination, measured through a dummy which is equal to 1 if the immigrant is “very concerned for the foreigners’ situation in Germany” and 0 otherwise.¹¹

We first repeat the same estimation as in the last column of Table 2 on the new sample to show that our findings are qualitatively the same when focusing on a different time period. We then introduce an index of immigrant penetration by region and year, measured as the percentage of immigrants on the total population of the region. With this variable, we aim at capturing the extent to which the relation between cultural assimilation and life satisfaction of immigrants is affected by the general openness of the region towards foreign-born individuals. Indeed, as already mentioned, we want to disentangle the interplay between the direct impact that subjective perceptions of cultural assimilation have on immigrants’ happiness and the indirect effect that general openness of the regions towards foreign-born marks their happiness.

As a first empirical observation, the penetration of immigrants has no statistically significant impact on life satisfaction, while the effect of German identity and language proficiency remains unaltered, suggesting that cultural assimilation is an internal mechanism, based on perceptions and not indirectly influenced by external conditions. Interestingly, however, a more detailed analysis shows that when we distinguish the level of penetration of immigrants by employment status, we find that external social conditions matter for the well-being of immigrants in so far as they represent the possibility for immigrants to contribute to the society they live in. In particular, if immigrants in the region are able to contribute to the labour force, this positively affects immigrants’ happiness, while nurturing unemployment is detrimental for immigrants’ well-being. We measure these two effects with the penetration of employed immigrants and the penetration of unemployed immigrants respectively. However, individual level variables capturing cultural assimilation maintain their importance in explaining the well-being of immigrants. The results are also robust to the inclusion of a proxy for perceived discrimination, which has the expected negative sign.

¹¹The question has only been asked since 1992. Note that the original variable regarding worries over the situation of foreigners in Germany covers three possible categories: "not concerned at all", "somewhat concerned" and "very concerned". Factoring such variable it emerges that only the latter category matters in determining life satisfaction of immigrants. Results of such estimation are available upon request. As a consequence of such exercise, only a dummy taking value 1 if the individual is "very concerned" for the situation of foreigners in Germany has been included.

[TABLE 4 ABOUT HERE]

4 Conclusion

Immigration is an increasingly important phenomenon for European societies and it is fuelling the risks of social instability. As a recent OECD report on international migration (OECD, 2013) pointed out, we believe that cultural issues linked to discrimination play an important role in determining the difficulty of effectively tackling the phenomenon. In this perspective, our analysis gives an important contribution to the current academic discussion, as it highlights the importance of the subjective perception of cultural assimilation in determining directly the well-being of immigrants. The strength of the empirical evidence we provide lies in the significance of such result even controlling for labour market confounders and external social conditions. Previous literature, indeed, focused on how cultural discrimination influences labour market outcomes of foreign born people, such as employment status or wages. In addition, our contribution shows that subjective perception of cultural assimilation goes beyond the time dimension of the integration process widely debated in the sociological literature, as German identity matters more for life satisfaction of “long stay” immigrants than for “fresh” ones.

More specifically, our empirical analysis shows the positive and significant effect of perceived cultural assimilation on immigrants’ life satisfaction in Germany. This effect is robust even controlling for time-invariant unobserved individual characteristics. Indeed, the feeling of belonging to a German identity and the ability to communicate in German increase significantly immigrants’ life satisfaction, while preserving the own country’s culture plays no role in this respect, resulting, on the contrary, detrimental for “fresh” immigrants. The effect of cultural assimilation on immigrants’ life satisfaction is particularly important for those of second generation and those who have been in the host country for more than 10 years. Our results are robust to the inclusion of regional controls and are therefore not mediated by external social conditions.

The analysis presented in this paper has important policy implications: successful immigration policies need to take into account the fundamental issue of cultural assimilation of immigrants. Indeed, investments in cultural integration of immigrants (such as ad hoc language courses) and inclusive interventions have a great potential in terms of minimizing the

risk of social instability by increasing the well-being of immigrants. This is a particularly urgent political issue in Germany, where in recent years “the political class had begun to accept that Germany is an immigration country with a responsibility to integrate immigrants fully into national life.”¹²

¹²See the article "The integration debate in Germany. Is multi-kulty dead?" (http://www.economist.com/blogs/newsbook/2010/10/integration_debate_germany/print)

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Figures

Figure 1: Kernel density estimate of life satisfaction by sense of German identity

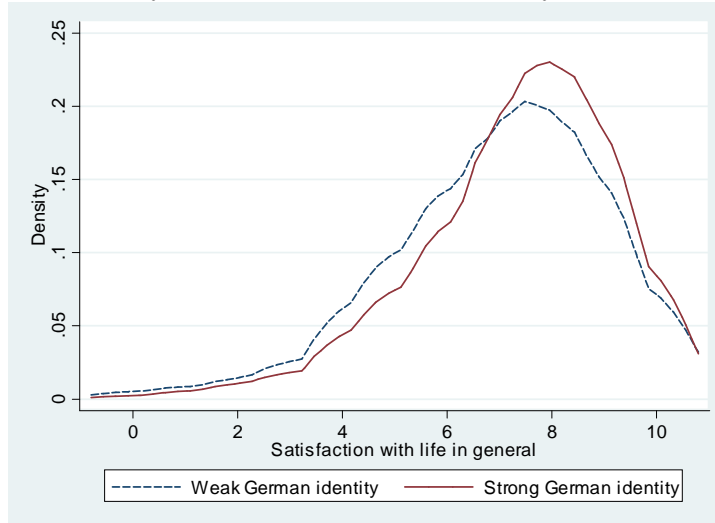


Figure 2: Kernel density estimate of life satisfaction by sense of native identity

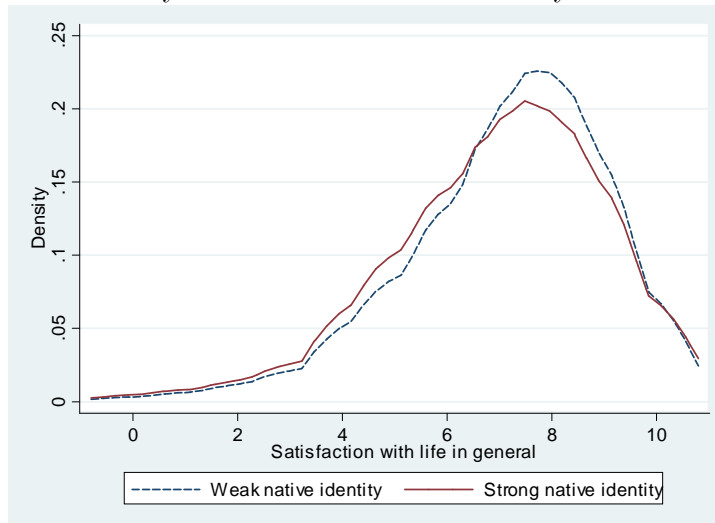


Figure 3: Kernel density estimate of life satisfaction - German and immigrants by sense of identity

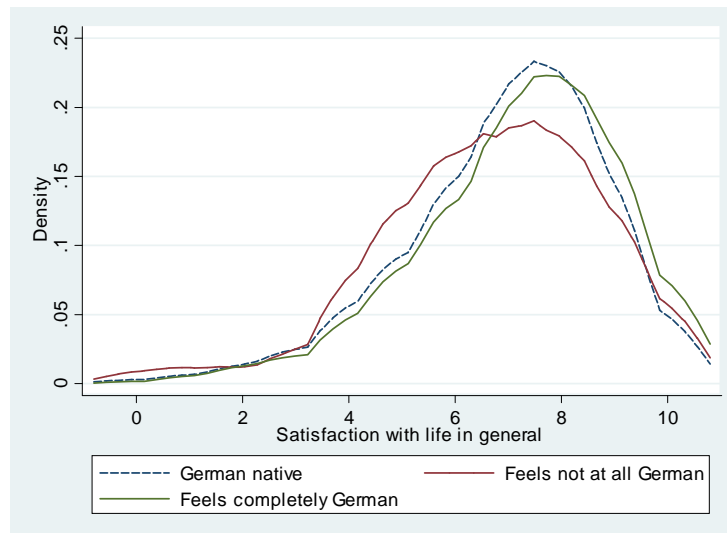


Figure 4: Total immigrant penetration in German regions (1995-2003 average)

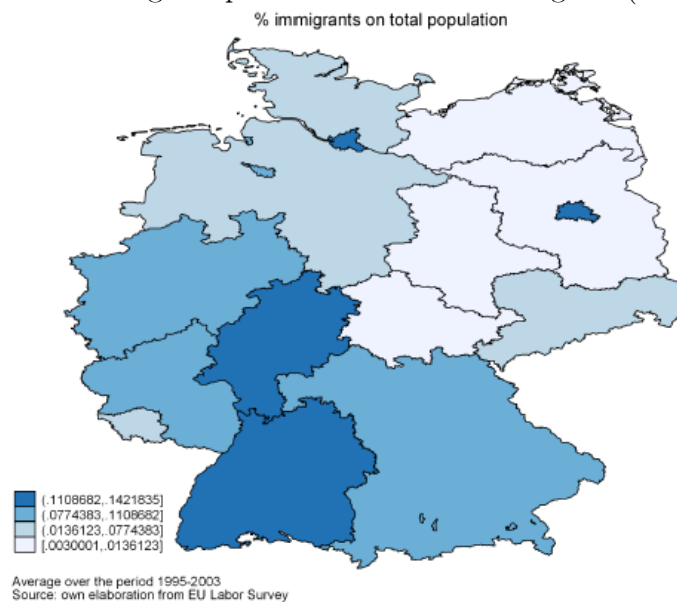


Table 1: Descriptive statistics. GSOEP data 1986-2003, immigrant sample.

		Mean	S.d.	min	max
<i>Subjective well-being</i>					
life satisfaction	how satisfied the respondent is with her life (0=completely dissatisfied, ..., 10=completely satisfied)	7.087	1.894	0	10
<i>Demographics</i>					
age	age of the respondent in years	38.892	14.280	15	94
number of children	number of living children	1.123	1.250	0	10
<i>Marital status</i>					
married	dummy=1 if the respondent is married	0.722	0.448	0	1
divorced	dummy=1 if the respondent is divorced or separated	0.046	0.210	0	1
widowed	dummy=1 if widow or widower	0.018	0.134	0	1
single	dummy=1 if the respondent is single (<i>reference category</i>)	0.214	0.410	0	1
<i>Income</i>					
log(income)	logarithm of household monthly income	7.440	0.489	3.258	10.597
<i>Employment status</i>					
full-time worker	dummy=1 if working full-time	0.510	0.500	0	1
part-time worker	dummy=1 if working part-time	0.073	0.260	0	1
vocational training	dummy=1 if in vocational training	0.037	0.189	0	1
not at work	dummy=1 if not working (<i>reference category</i>)	0.380	0.485	0	1
<i>Health</i>					
hospital stay	dummy=1 if at least one overnight hospital stay within the previous year	0.116	0.320	0	1
log(doctor visits +1)	logarithm of the number of visits to the doctor within the previous year =1	1.491	1.403	0	5.984
<i>Cultural assimilation</i>					
German identity	how strongly German the respondent feels (1=not at all,..., 5=completely)	2.507	1.291	1	5
foreign identity	how strongly foreign the respondent feels (1=not at all,..., 5=completely)	3.842	1.155	1	5
German proficiency	average between speaking and writing skills in German (1=poor... 5=very good)	3.292	1.161	1	5
native proficiency	average between speaking and writing skills in the native language (1=poor... 5=very good)	4.179	0.858	1	5

Table 2: Life satisfaction of immigrants (1985-2003) - estimation with individual and time FE

VARIABLES			
age	-0.104** (0.050)	-0.108** (0.050)	-0.104** (0.050)
age squared	0.001*** (0.000)	0.001*** (0.000)	0.001*** (0.000)
married	0.246*** (0.086)	0.260*** (0.085)	0.280*** (0.085)
divorced	-0.014 (0.153)	-0.003 (0.152)	0.010 (0.151)
widowed	-0.188 (0.336)	-0.187 (0.333)	-0.140 (0.334)
number of children	0.017 (0.020)	0.015 (0.020)	0.015 (0.020)
log(income)	0.272*** (0.046)	0.271*** (0.046)	0.270*** (0.046)
full-time worker	0.422*** (0.051)	0.419*** (0.051)	0.407*** (0.050)
part-time worker	0.215*** (0.064)	0.213*** (0.064)	0.202*** (0.064)
vocational training	0.272*** (0.078)	0.276*** (0.077)	0.277*** (0.077)
hospital stay	-0.120*** (0.043)	-0.120*** (0.042)	-0.123*** (0.042)
log(doctor visits+1)	-0.084*** (0.011)	-0.083*** (0.011)	-0.084*** (0.011)
German identity		0.097*** (0.018)	0.085*** (0.018)
native identity		0.006 (0.019)	0.003 (0.019)
German proficiency			0.166*** (0.027)
native proficiency			0.097*** (0.024)
Constant	7.760*** (1.552)	7.597*** (1.556)	6.541*** (1.560)
Observations	22,636	22,636	22,636
Number of individuals	6,167	6,167	6,167
Within R^2	0.043	0.045	0.050

Robust standard errors in parentheses (***) $p < 0.01$, (**) $p < 0.05$, (*) $p < 0.1$)

Table 3: Life satisfaction of immigrants (1985-2003) by migration background and years since migration - estimation with individual and time FE

VARIABLES	10 years or less	More than 10 years	Second generation
age	-0.167 (0.129)	-0.082 (0.061)	-0.648*** (0.191)
age squared	0.001 (0.001)	0.000** (0.000)	0.005*** (0.001)
married	0.264 (0.235)	0.214* (0.128)	0.550*** (0.156)
divorced	0.094 (0.413)	-0.011 (0.202)	0.557 (0.352)
widowed	1.145 (1.350)	-0.152 (0.407)	0.087 (0.266)
number of children	0.054 (0.069)	0.016 (0.025)	-0.091* (0.054)
log(income)	0.161 (0.121)	0.292*** (0.061)	0.145 (0.101)
full-time worker	0.752*** (0.135)	0.460*** (0.064)	0.312*** (0.116)
part-time worker	0.303* (0.172)	0.255*** (0.085)	0.216 (0.142)
vocational training	0.231 (0.205)	0.509*** (0.138)	0.161 (0.112)
hospital stay	0.043 (0.104)	-0.164*** (0.053)	-0.020 (0.130)
log(doctor visits+1)	-0.041 (0.028)	-0.082*** (0.013)	-0.069** (0.030)
German identity	0.069 (0.056)	0.074*** (0.022)	0.124** (0.049)
native identity	-0.128** (0.052)	0.035 (0.024)	-0.025 (0.049)
German proficiency	0.150** (0.069)	0.183*** (0.033)	0.228*** (0.076)
native proficiency	0.030 (0.064)	0.111*** (0.030)	0.091* (0.054)
Constant	9.513*** (3.084)	5.732*** (2.149)	13.957*** (2.803)
Observations	4,135	14,983	2,642
Number of individuals	1,987	3,881	938
Within R^2	0.040	0.052	0.090

Robust standard errors in parentheses (***) $p < 0.01$, ** $p < 0.05$, * $p < 0.1$)

Table 4: Life satisfaction of immigrants (1995-2003) - estimation with individual and time FE

VARIABLES				
age	-0.181***	-0.181***	-0.133***	-0.131***
	(0.031)	(0.036)	(0.041)	(0.041)
age squared	0.001***	0.001***	0.001***	0.001***
	(0.000)	(0.000)	(0.000)	(0.000)
married	0.399***	0.399***	0.407***	0.406***
	(0.153)	(0.153)	(0.153)	(0.153)
divorced	0.200	0.200	0.201	0.199
	(0.243)	(0.243)	(0.243)	(0.243)
widowed	0.092	0.092	0.093	0.096
	(0.345)	(0.345)	(0.346)	(0.346)
number of children	0.025	0.025	0.022	0.023
	(0.033)	(0.033)	(0.033)	(0.033)
log(income)	0.260***	0.260***	0.261***	0.263***
	(0.064)	(0.064)	(0.064)	(0.064)
full-time worker	0.424***	0.424***	0.423***	0.423***
	(0.069)	(0.069)	(0.069)	(0.069)
part-time worker	0.394***	0.394***	0.392***	0.390***
	(0.082)	(0.082)	(0.082)	(0.082)
vocational training	0.218**	0.218**	0.215**	0.213**
	(0.107)	(0.107)	(0.108)	(0.108)
hospital stay	-0.031	-0.031	-0.030	-0.030
	(0.055)	(0.055)	(0.055)	(0.055)
log(doctor visits+1)	-0.074***	-0.074***	-0.074***	-0.074***
	(0.017)	(0.017)	(0.017)	(0.017)
German identity	0.069***	0.069***	0.067**	0.066**
	(0.027)	(0.027)	(0.027)	(0.027)
native identity	-0.018	-0.018	-0.018	-0.018
	(0.026)	(0.026)	(0.026)	(0.026)
German proficiency	0.112***	0.112***	0.110***	0.109***
	(0.037)	(0.037)	(0.037)	(0.037)
native proficiency	0.085**	0.085**	0.085**	0.087**
	(0.034)	(0.034)	(0.034)	(0.034)
total penetration of immigrants		0.039		
		(0.952)		
penetration of employed immigrants			2.122*	2.107*
			(1.177)	(1.177)
penetration of unemployed immigrants			-1.339***	-1.346***
			(0.496)	(0.496)
worries				-0.071*
				(0.043)
Constant	9.360***	9.384***	7.621***	7.591***
	(1.089)	(1.237)	(1.420)	(1.419)
Observations	11,262	11,262	11,262	11,262
Number of individuals	4,444	4,444	4,444	4,444
Within R^2	0.038	0.038	0.040	0.040

Robust standard errors in parentheses (***) $p < 0.01$, ** $p < 0.05$, * $p < 0.1$