

# When expectations backfire: A longitudinal analysis on unmet migration expectations and destination attachment of recent immigrants to Switzerland

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## Abstract

Immigrants with higher levels of education tend to report more discrimination and a weaker attachment to their destination country than immigrants with lower levels of education. This so-called integration paradox is thought to occur because of two basic, mutually independent mechanisms: (1) highly educated immigrants more often experience unmet migration expectations, and (2) show stronger negative reactions when their expectations about their life abroad are not met. Existing research mainly focused on the first mechanism, and empirically tracing the second has been challenging due to a lack of evidence comparing less- and more-educated immigrants' reactions over time. Here, we address this gap and examine how unmet migration expectations contribute to education-related differences in destination attachment. Using panel data on recent immigrants to Switzerland from the Swiss Migration-Mobility Survey ( $N = 5,242$  immigrants and 13,890 observations, 2016-2022), we assessed the extent of unmet expectations and associated disappointment through a question on dissatisfaction with the decision to migrate. Consistent with theory, we found that increasingly negative evaluations of pre-migration expectations were linked to reduced destination attachment, especially for immigrants with higher levels of education. These results suggest a fundamental mechanism for the emergence of the integration paradox, enhancing our understanding of immigrant integration.

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# 1 Introduction

International migration is a fact of life: individuals move to other countries for work or lifestyle reasons, to stay with loved ones, or to seek security. Even if international migration is carefully planned, it always involves uncertainty and limited personal agency, some of which migrants may not be aware of (Collins, 2018; de Haas, 2021). The fact that individuals emigrate in the face of such adversities has contributed to an understanding of migrants as risk-takers and optimistic decision-makers (Czaika, 2015; Kao & Tienda, 1995). Indeed, migrants have been likened to gamblers with high expectations who hope or think they can calculate the risks, although they are in fact exposed to the “migration game” (Belloni, 2019). It is inherent in the uncertainty about outcomes that high hopes and expectations may not be met, making migrants regret their decision to move abroad and creating disappointment. Such experiences can make it more difficult for migrants to adjust to the country of destination, to form emotional ties, and to feel attached to the place of residence and its people, which in turn can jeopardise their overall well-being and intentions to stay.

One group of migrants that sociologists have identified as particularly prone to experience unmet expectations and stronger disappointment when their expectations are not met are immigrants with high levels of education (e.g. Schaeffer & Kas, 2023). Compared to less-educated immigrants, they seem to embody (overly) confident gamblers who have developed particularly high expectations of migration as opportunities, and expect to fit in, fare well, and be treated equally in the destination country (Geurts et al., 2021; van Doorn et al., 2013). There are two mutually independent corollaries of these high expectations: (1) they are likely to remain unfulfilled, (2) and if they are unfulfilled, immigrants’ disappointment is all the higher (Schaeffer & Kas, 2023). Both of these mechanisms can result in increased perceptions of discrimination and weakened attachment to the destination country among more-educated immigrants even though on objective criteria like economic integration, they do well—a phenomenon known as the “integration paradox” (Verkuyten, 2016). Previous research has used both mechanisms to theoretically explain the integration paradox, but empirically the focus mainly was on explaining the first, i.e. why more-educated immigrants are more likely to experience unmet expectations (e.g. Steinmann, 2019). Here, we investigated the second mechanism, i.e. the assumed greater vulnerability of highly educated immigrants, by analysing how the potential disappointment that comes with unmet migration expectations affects less- and more-educated immigrants’ attachment to the destination country.

A few studies have demonstrated the potential impact that unmet desires and expectations can have on immigrants’ emotional engagement with the destination society (Geurts et al., 2021; Schaeffer, 2019). However, these studies did not compare less- to more-educated immigrants, leaving unanswered the question of whether the impact of unmet expectations is greater for highly educated immigrants. But even if the previous studies had compared these two groups, the studies’ cross-

sectional designs would not allow the investigation of how changes in migration expectations are associated with changes in perceived discrimination or belonging. Panel studies can address this issue by investigating changes within individuals over time. Yet, existing longitudinal work, too, has not compared changes within less- and more-educated immigrants (Lindemann, 2020).

The panel study by Lindemann (2020) investigated perceived discrimination in hiring processes among adolescents of immigrant (grand)parents during their school-to-apprenticeship transition in Germany. The study examined low-, average-, and high-achieving adolescents on non-academic tracks and only found evidence for higher perceptions of discrimination among low and average (not high) achievers if they entered semi-skilled (compared to skilled) positions, and if their new job was not what they sought. This finding led Lindemann to conclude that there is a lack of evidence for an integration paradox. However, the focus was exclusively on less-educated immigrants (i.e. immigrants on non-academic tracks), and not on the comparison between less- and more-educated immigrants. Thus, if the explanation for the integration paradox lies with the more-educated immigrants—as theory suggests—is it not surprising that the study did not find any evidence for the paradox’s existence, which is acknowledged by the author herself (2020, p. 22).

With fresh panel data on recently arrived voluntary immigrants to Switzerland (Steiner & Wanner, 2019; Wanner et al., 2023), we combined a longitudinal design with a comparison between less- and more-educated immigrants. This allowed us to assess whether the disappointment that comes with unmet migration expectations is indeed a plausible explanation for the integration paradox. Switzerland is an economically attractive destination, but also marked by conservative and anti-immigrant politics that make adjustment and integration challenging (Bennour et al., 2022). This combination can contribute to increased and unmet migration expectations. We capture the initial period of migration in which immigrants’ expectations meet reality in the destination country, that is, before immigrants may adjust their expectations in the face of the situation they met. Through investigating this period, we can reduce selectivity bias due to renewed migration, which likely applies to highly educated immigrants and those with unmet expectations (Ette & Witte, 2021; Spanner & Diehl, 2021; Zufferey et al., 2021)—two subpopulations that are crucial for our purpose.

In line with theory, fixed effects (FE) analyses show that although highly educated immigrants tend to be satisfied with their decision to migrate, negative evaluations of pre-migration expectations are associated with particularly strong decreases in attachment to the destination. Accounting for change resistant factors such as phenotypical markers or gender, the findings overall suggest unmet migration expectations to be a plausible fundamental mechanism for the emergence of the integration paradox.

## **2 Theory and hypothesis**

A large body of research has described what has come to be known as the integration paradox (Verkuyten, 2016). The term refers to the counter-intuitive observation that despite their comparatively advanced economic, linguistic, and social integration, highly educated immigrants—especially those who are more visible (Flores, 2015)—seem to have lost out: They often report more discrimination and weaker attachment to their destination country than their less-educated counterparts (e.g. Genoni, 2022; Schaeffer & Kas, 2023).

### **2.1 Migration expectations**

Unmet migration expectations are often used to explain why some highly educated immigrants appear integrated but do not feel so (e.g. Geurts et al., 2021; Schaeffer, 2019). Highly educated immigrants' expectations about migration outcomes are argued to be particularly high because they anticipate that they will fit in, fare well, and be treated equally and fairly. These high expectations about life abroad are based on assumptions and demands for adequate returns that evolved from personal and family investments and accumulated resources—a conjecture referred to as the hypothesis of rising expectations (e.g. Verkuyten, 2016). A protected and privileged upbringing, the attainment of a relatively high status position before immigration, and the perceived integration advantages that result from these investments and resources can have an empowering effect, increasing the self-confidence of highly educated immigrants and giving them the impression that they are entitled to certain things and being treated as equal to non-immigrants in the destination country (Cooney, 2009; Geurts et al., 2021; Wodtke, 2012).

### **2.2 Unmet migration expectations**

Although setting high standards has the potential to inspire motivation and drive, it can also be counterproductive and backfire (Baumeister & Scher, 1988). Scholars argue that highly educated immigrants are more frequently confronted with unmet migration expectations than their less-educated counterparts because high expectations about life after migration tend to put highly educated immigrants in poor situations for comparison, more often leading to poor evaluations of their individual situation (e.g. Verkuyten, 2016).

High migration expectations anchor the point of reference more strongly in the destination society for highly educated immigrants compared to their less-educated counterparts. While highly educated immigrants tend to use the living standard and lifestyle of the mainstream society in the destination country as points of reference, less-educated immigrants tend to compare their current situation with past experiences and the situation of non-migrated peers in their homeland (Schaeffer, 2019). However, highly educated immigrants also tend to draw comparisons to their lives before immigration. This strategy—known as the dual frame of reference (Suarez-Orozco, 1987)—represents a general

approach among immigrants since they emigrated in expectation of better opportunities (Röder & Mühlau, 2012; Zagefka & Brown, 2005). For example, Geurts et al. (2021) showed how highly educated Turkish immigrants in the Netherlands justified their unmet expectations by referring to their comparably better life before immigration.

Obtained privileges, accustomed high living standards, and social recognition set a high bar for life abroad, which can be difficult to meet because of differences in language and culture, experiences of discrimination or social distance, and the limited transferability of human capital or the non-recognition of certificates (e.g. Lancee & Bol, 2017; Reinold et al., 2024). Although highly educated immigrants may occupy good positions in the local labour market and get on comparably well in adapting to the mainstream way of life, they may experience their situation as particularly negative because they expected something different and feel that their investments and resources have not been rewarded adequately. The main argument here is that for highly educated immigrants, the disadvantageous comparison to the mainstream society is more common, and the comparison to their pre-migration life more frequently ends up being disadvantageous. Both comparisons lead to a higher chance of highly educated immigrants not having their migration expectations met. Ultimately, this higher likelihood of experiencing unmet expectations provides an explanation for the integration paradox by drawing on differences *between* less- and more-educated immigrants.

### **2.3 Educational differences in reactions to unmet expectations**

Existing research on the integration paradox has primarily focused on why more-educated immigrants tend to have high expectations and more often experience unmet expectations compared to less-educated immigrants (e.g. Steinmann, 2019). However, this approach has neglected to compare differences *within* individuals of these groups, i.e. how more- and less-educated immigrants react to unmet expectations, which is the focus of this study.

Why could unmet expectations be perceived as particularly disappointing and why may they cause comparably strong detrimental reactions among highly educated immigrants? Arguably, their cognitive susceptibility to experience stronger disappointment stems from their substantial investment and high migration expectations, both of which can lead to particularly high disappointment when expectations are not met (Schaeffer & Kas, 2023; Verkuyten, 2016). Assuming that individuals try to maximise their subjective utility (e.g. Ormel et al., 1999), their investments can provoke particularly strong detrimental reactions if these investments are not followed by anticipated returns. The intensity of the reaction thereby depends on the size of the investment and the size of the envisioned return (Hobfoll, 1989). Combined, these mechanisms have the potential to exponentially increase the level of perceived disappointment in the event of unmet expectations, suggesting that highly educated immigrants with presumably large investments and high expectations are particularly prone to being

strongly disappointed by unmet migration expectations, especially in contexts where discrimination and blocked opportunities are a reality (e.g. Zschirnt & Ruedin, 2016).

Overall, the theoretical considerations suggest that highly educated immigrants show particularly strong negative reactions in the case of unmet migration expectations. The stronger reactions result from their relatively higher investment in their life abroad, and their comparatively higher expectations about emigration. Developing high expectations of one's migration is therefore tantamount to what Baumeister and Scher (1988) called a counter-intuitive strategy: They can lead to a problematic framing of one's own migration, perceiving it as a poor bargain with unintended and particularly negative consequences.

## **2.4 The consequences of unmet migration expectations**

Unmet migration expectations can lead to reduced destination attachment. There are at least two explanations for this link. The first draws on the theory of relative deprivation (Pettigrew et al., 2008), arguing that immigrants' disadvantageous comparisons result in feeling their unjustly disadvantaged, socially rejected, and devalued, increasing perceived discrimination and weakening attachment to the destination country (Schaeffer, 2019; Verkuyten, 2016). A second explanation is provided by group engagement theory (Tyler & Blader, 2003): Disadvantageous comparisons lead immigrants to consider their engagement with the society of the destination country a failure, whether through personal negligence or not. Assuming that individuals generally seek to climb the social ladder (Ellemers, 1993), they feel accepted by and part of a group if they believe that they get desired resources by being cooperative and competitive within that group. Thus, if immigrants feel that the destination society does not provide the resources and status that they sought through migration, their attachment to the destination country can be weakened.

## **2.5 Scope of the study and hypothesis**

The present study examines the potential effect of unmet migration expectations on the destination attachment of more- and less-educated immigrants using large-scale panel data. The literature assumes particularly detrimental consequences for highly educated immigrants if they find themselves confronted with unmet migration expectations (e.g. Schaeffer, 2019). Existing research drew on this conjecture as an explanation for the integration paradox, i.e. weaker destination attachment of more- compared to less-educated immigrants (e.g. Verkuyten, 2016). However, cross-sectional designs and the lack of comparison of how less- and more-educated immigrants deal with unmet migration expectations have left unanswered the question of whether more-educated immigrants indeed react more strongly to these unmet expectations. Consequently, we do not know whether more detrimental reactions to unmet migration expectations of more-educated immigrants provide an explanation for the integration paradox. It might also be possible that the paradox is simply a result of highly educated

immigrants being more likely to have unmet migration expectations (e.g. Steinmann, 2019). To increase our understanding of the emergence of the integration paradox, we address this gap in research by testing the following hypothesis:

*Increased unmet migration expectations are associated with a stronger decrease in attachment to the destination country for highly educated immigrants than for their less-educated counterparts.*

### 3 Data and methods

#### 3.1 Data

We used publicly available four-wave panel data from the Swiss Migration-Mobility Survey (MMS), a multilingual large-scale survey with register-based representative sampling of adult immigrants who have recently arrived to Switzerland (Steiner & Wanner, 2019; Wanner et al., 2023). The survey was carried out at the end of 2016, 2018, 2020, and 2022. It includes people born abroad with non-Swiss nationality who moved to Switzerland after 2006 (10 preceding years). At the time of the first wave, respondents had to be between 24 and 64 years old (working age), and they had to be at least 18 years old when they arrived in Switzerland. The survey was carried out online or by telephone. Asylum seekers and temporarily admitted persons were not included in the survey. The analytical sample contains recent immigrants to Switzerland with an average residence duration of roughly seven years and from over 146 countries. Immigrants with only one observation were excluded as they did not contribute to the panel regression techniques applied here. The resulting analytical sample consists of 5,242 immigrants with 13,890 observations and an average participation rate of 2.7 out of 4 waves. **Table S1** in the online supplement provides a descriptive overview, including variables relevant to the analyses and the five most common countries of origin.

#### 3.2 Measures

We analysed immigrants' emotional attachment to Switzerland to investigate the potentially detrimental consequences that come with unmet migration expectations and related disappointment. Immigrants' attachment to Switzerland was captured by their extent of *attachment to Switzerland*, which is considered a relevant aspect of social or collective identity (Ashmore et al., 2004). Participants were asked "to what extent do you have a feeling of attachment to Switzerland?", with response possibilities ranging from 0 "no feeling of attachment" to 7 "strong feeling of attachment." In addition, we analysed to what extent immigrants agreed to the statements that they *feel they belong to Swiss society* and feel totally *accepted by the society in Switzerland* (each ranging from 0 "disagree totally" to 3 "agree totally"). These two variables are closely related to the main outcome and have been shown to capture the same latent construct as attachment (Ashmore et al., 2004). The analytical sample for investigating

belongingness and acceptance was smaller because these variables were only introduced in the second wave. These alternative outcomes allow us to validate the main findings.

To measure the extent to which pre-migration expectations were met or not, we used information on immigrants' *satisfaction with the decision to move to Switzerland*: "On a scale from 0 (not at all satisfied) to 10 (completely satisfied), can you indicate your degree of satisfaction with your decision to move to Switzerland?" We reverse coded the variable to align it with the construct we wanted to capture and labelled it *dissatisfaction with the decision to move to Switzerland*. This variable not only helps us to capture unmet expectations but also the extent of the potential disappointment that comes with the unmet expectations, helping disambiguate whether more- and less-educated immigrants indeed perceived the associated disappointment differently. For the two alternative outcomes, we used a slightly adapted version of this variable in which we combined values 6 to 10 due to limited case numbers. Immigrants' *highest level of education* was measured using a binary variable, differentiating non-tertiary education (= 0) from tertiary education (= 1). We used the highest level of education across all waves, also including immigrants who obtained a tertiary degree during the survey because they are a particularly important group regarding migration expectations (de Vroome et al., 2014; Section 4.2).

All models include two additional variables, the first being immigrants' *age* with a linear specification. Age accounts for changes in time, and thus for potential temporal changes in immigrants' frame of reference that could bias our estimates. We ran sensitivity checks with quadratic and cubic age functions because the misspecification of age effects when analysing outcome variables on bounded scales can lead to biased estimates of treatment effects (in our case: unmet migration expectations) (Ranjbar & Sperlich, 2020). We did not find meaningful changes in the main results (**Figure S1**) and therefore used a more parsimonious specification of age. As a second variable, the models control for period effects in the context of the COVID-19 pandemic. The variable *pandemic* was coded as 1 if participants were surveyed by the end of 2020, and as 0 if otherwise.

### 3.3 Analytical Strategy




We used fixed-effects (FE) panel regression models with panel-robust standard errors (e.g. Brüderl & Ludwig, 2015) to investigate how immigrants change their attachment to Switzerland if their dissatisfaction with the decision to move to Switzerland increases. FE estimations are based on intra-individual comparisons, which means that they only consider changes taking place within individuals, such as an increase in their language skills over time. Therefore, FE models are advantageous to tighten the bounds of causal inference because they control for observed and unobserved time-constant characteristics (e.g. country of origin, past migration experience, ethnic origin, personality traits, migrant visibility).



No variables beyond those discussed above were included in the models. This decision was made after assessing whether a more thorough modelling of exposure-related and shock-like changes in immigrants' frame of reference is required by extending the main model with immigrants' *residence duration in Switzerland* (in years); their *comprehension of the local language*, ranging from 0 understanding "nothing at all" to 4 understanding "everything;" and a binary variable indicating whether *participants obtained a permanent residence permit* (C permit) during the survey (= 1) or not (= 0). The main results hardly changed (**Figure S2**), suggesting use of the specification with the essential controls *age* and *pandemic* for the main models. We reached the same conclusion after accounting for immigrants' *intentions to migrate* (0 = "no," 1 = "don't know," 2 = "yes"), a factor that can be both a confounder and a mediator (**Figure S3**).

Rows one and two in **Table 1** show that most immigrants were located in the positive scale range of the dissatisfaction scale, suggesting that, in absolute terms, immigrants were rather satisfied with their decision to move to Switzerland. However, this cross-sectional view conceals that individuals can change their answer between survey time points, the change that is required for the analysis. By estimating FE models, we took advantage of the multiple waves over which some participants changed their dissatisfaction with the decision to move to Switzerland (and their destination attachment).

Table 1. Most immigrants, and highly educated immigrants in particular, were satisfied with their decision move to Switzerland

Dissatisfaction with the decision to move	Positive scale range					Negative scale range						Visual
	0	1	2	3	4	5	6	7	8	9	10	
	<i>Most positive</i>					<i>Neutral</i>						
Less educated	1,964	615	485	256	129	163	53	37	23	17	38	
More educated	4,900	2,003	1,495	814	353	299	90	60	43	27	26	
Difference in relative shares (%-points)	-4.8	7.1	4.5	2.6	0.3	-2.3	-1.0	-0.7	-0.2	-0.3	-1.9	

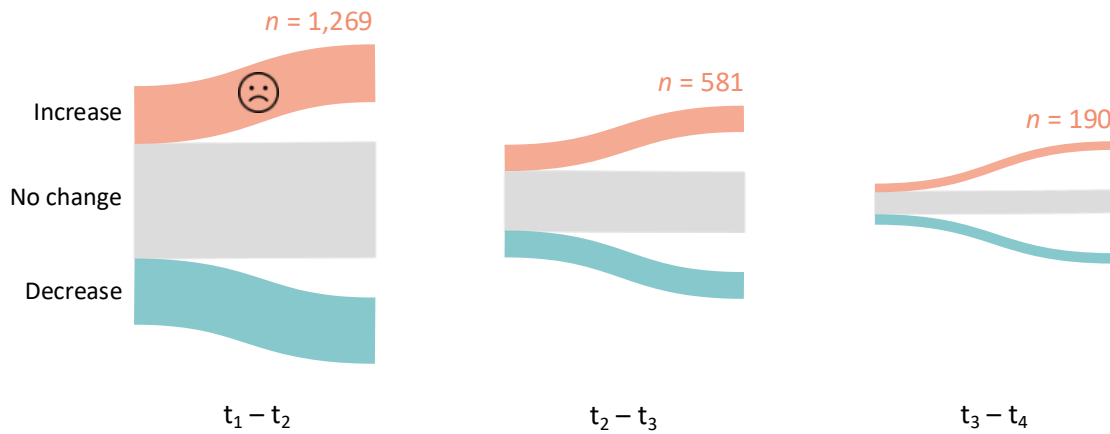
*Note.* The table shows observation numbers by educational level and relative shares of observations across the dissatisfaction scale. Rows 1 and 2 show the total number of observations per education group. The positive values in row 3 indicate larger relative shares of more-educated immigrants negative values indicate larger relative shares of less-educated immigrants. For example, the value -4.8 indicates that a higher relative share of less-educated immigrants is completely satisfied with the decision to move (namely 70.0%) than is the case for more-educated immigrants (65.1%;  $65.1 - 70.0 = -4.8$ ).

*Data.* MMS, waves 1–4 (2016–2022), own calculations.

**Figure 1** provides an overview of what happened with immigrants' dissatisfaction with their migration decision during the panel survey. The figure illustrates that the majority of immigrants did not change

their dissatisfaction level from one interview to the next, which is depicted by the grey horizontally running streams. A smaller but still sizeable share of immigrants either decreased (green downward-flowing stream) or increased (orange upward-flowing stream) their dissatisfaction with their migration decision in the course of the panel survey. Of importance for our research question are those immigrants who increased their dissatisfaction over time, i.e. all observations presented as orange upward-flowing streams. From the first to the second interviews ( $t_1$  and  $t_2$ ), we observed 1,269 persons whose dissatisfaction with the migration decision increased. From  $t_2$  to  $t_3$ , this group included 581 persons, and from  $t_3$  to  $t_4$ , there were 190 persons. In the following analyses, we used these 2,040 individual changes (592 for less- and 1,448 for more-educated immigrants) and investigated the changes' effect on destination attachment (see **Tables S2 and S3** for detailed change matrices).

Figure 1. A sizeable number of immigrants increased their dissatisfaction with their decision to move to Switzerland during the panel survey



*Note.* The figure shows the number of individuals who changed their dissatisfaction with the decision to move to Switzerland during the survey. “Increase” represents increased dissatisfaction with the migration decision between interviews (in orange), whereas “Decrease” represents decreased dissatisfaction (i.e. increased satisfaction, in green). “No change” refers to immigrants who did not change their answer between interviews. The height of the bars shows the relative (lack of) change in a particular way. Time points  $t_k$  refer to participants’ interview number. Created with <https://sankeymatic.com/build/> Data. MMS, waves 1–4 (2016–2022), own calculations.

For the main analyses, we used all immigrant observations depicted in **Figure 1**, including those participants who never changed their dissatisfaction level during the survey. We refer to this group as “non-treated,” and discuss them in greater detail in the Robustness Section 4.2. We ran FE linear regressions but also FE ordered logit regressions as sensitivity check, accounting for the ordinal scale of our dependent variable (cf. Kratz, 2023). Both approaches yielded similar results. The results of the FE linear regressions are discussed in the main text, while the main results based on the FE ordered logit models can be found in **Table S4**.

Given the ordinal scale of the explanatory variable, we estimated possible threshold effects by using dummy indicators for each level of dissatisfaction. Based on these dummies, we calculate the average

of all intra-individual differences in immigrants' attachment to Switzerland for the different levels of the dissatisfaction scale relative to the reference category, i.e. "completely satisfied with the migration decision." The resulting equation of our main FE model for  $i = 1, \dots, N$  individuals observed at  $t = 1, \dots, T$  points in time is as follows:

$$\begin{aligned} Attachment = & \alpha_i + \beta'X + \beta_{Dissat.level1}D_{Dissat.level1}, \\ & + \beta_{Dissat.level2}D_{Dissat.level2}, \\ & + \dots \\ & + \beta_{Dissat.level9}D_{Dissat.level9}, \\ & + \beta_{Dissat.level10}D_{Dissat.level10} + \varepsilon \end{aligned}$$

Where  $X_{it}$  stands for a vector of confounders (*age* and *pandemic*), and  $D_{[...]}$ , for the dummies of the dissatisfaction levels.  $D_{Dissat.level0}$ , is not shown in the equation because it is the omitted reference category.

To deal with the potential uncertainty in the results associated with the comparatively small number of observations at higher levels of dissatisfaction, we followed the approach of Hudde and Jacob (2023): Based on the FE estimates, we predicted marginal values for each dissatisfaction level and then used these as a baseline to calculate trend lines through locally weighted smoothing (LOESS). To account for the ordinal nature of our explanatory variable, we applied two smoothing procedures for each education group, i.e. one for the positive and one for the negative scale range.

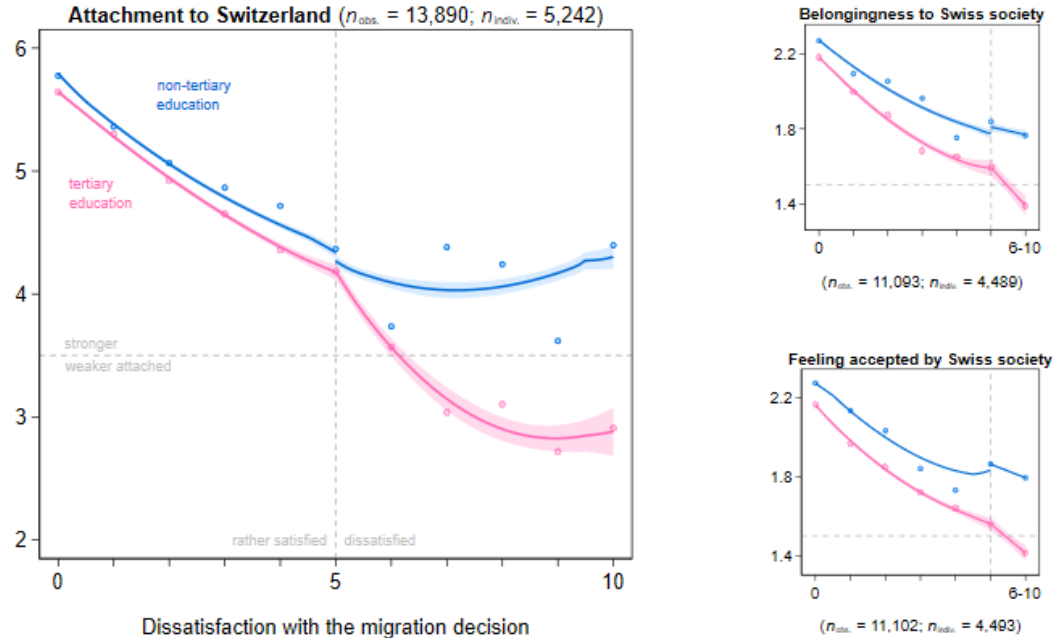
## 4 Results

### 4.1 Unmet migration expectations and immigrants' destination attachment

Are highly educated immigrants more strongly affected by unmet migration expectations than less-educated immigrants? If one were to only consider the bottom row of **Table 1**, the answer would appear to be no. That row shows the differences in the relative shares of less- and more-educated immigrants for each dissatisfaction level. Positive values indicate that the relative share of more-educated immigrants is larger than that of less-educated immigrants, while negative values indicate the opposite. Overall, the values suggest that more-educated immigrants are more satisfied with their decision to move to Switzerland than are less-educated immigrants. However, to answer the question properly, it is necessary to look at the left panel of **Figure 2**, which shows the changes in attachment across the dissatisfaction scale as depicted by the FE results. These findings are based on separated FE regression models for immigrants' attachment to Switzerland and corroborate our hypothesis.

Immigrants reported substantially lower attachment if their dissatisfaction with the decision to move to Switzerland increased (**Figure 2, left panel**). We found this trend for both less-educated immigrants (in dark blue) and more-educated immigrants (in light purple). However, once immigrants had dissatisfaction scores greater than 5, as indicated by the grey dashed vertical line, we found that the decline in attachment tapered off somewhat for less-educated immigrants, but the decline in attachment continued and even accelerated for more-educated immigrants. These trends contribute to a widening gap between less- and more-educated immigrants' destination attachment. This gap is not only meaningful quantitatively but also qualitatively: The destination attachment of less-educated immigrants remained rather strong on average across the dissatisfaction scale, as their attachment was always above the threshold of 3.5, indicated by the grey dashed horizontal line. In contrast, the destination attachment of more-educated immigrants fell below this threshold, reflecting a weaker attachment on average, as indicated by the response categories. We replicated these substantive findings with the two alternative outcomes *feelings of belongingness to* and *feelings of acceptance by Swiss society*, which capture the same latent concept as destination attachment (**Figure 2, right panels**).

Figure 2. Highly educated immigrants showed particularly pronounced decreases in attachment to Switzerland if their dissatisfaction with the decision to move to Switzerland increased

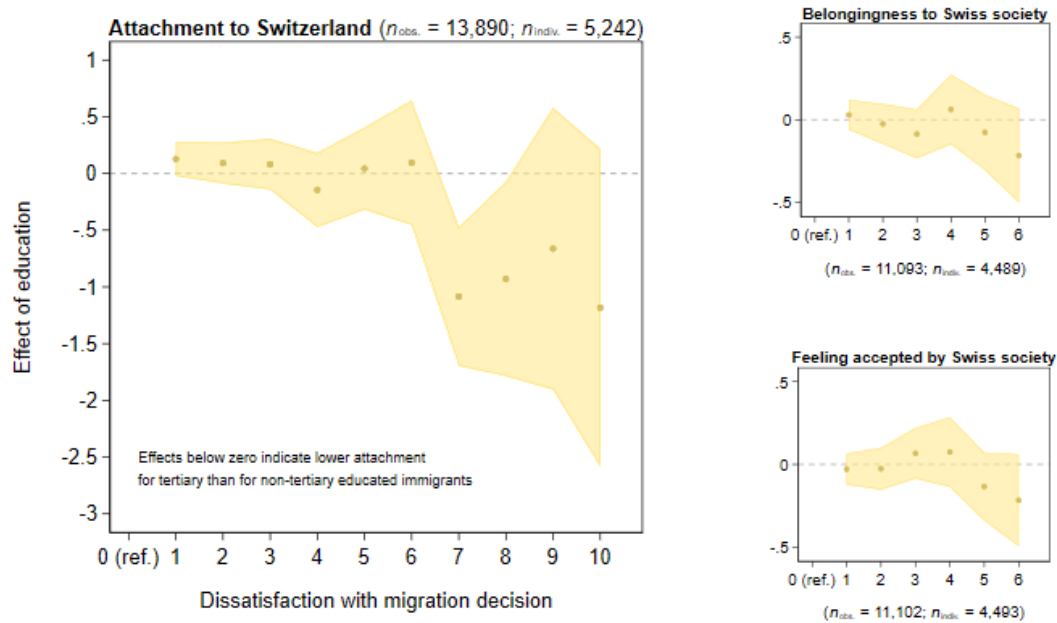


*Note.* The figure shows changes in immigrants' identification with Switzerland (3 indicators) if dissatisfaction with the decision to move to Switzerland increased, by educational level. Predicted education-specific marginal values (the dots) are based on separate linear FE regressions with panel-robust standard errors. Trend lines are based on LOESS (bandwidth = 2). All models control for age and pandemic year (2020). There are different numbers of observations in the right panels due to missing values in outcomes.

*Data.* MMS, waves 1–4 (2016–2022), own calculations.

The educational differences in the change of destination attachment with increasing dissatisfaction were also corroborated in a model in which we interacted education and dissatisfaction with the migration decision (**Figure 3, left panel**). Again, these findings were replicated with the restricted sample using the two alternative outcomes (**Figure 3, right panels**). As expected due to the smaller number of observations in the negative scale range of the dissatisfaction scale, these results showed greater uncertainty. However, the results are systematic and similar across all analyses, meaning that the educational differences in the outcomes became evident as soon as immigrants started reporting dissatisfaction with their decision to move to Switzerland.

Figure 3. Educational differences in the change of immigrants' attachment to Switzerland appeared if their dissatisfaction with the decision to move to Switzerland increased



*Note.* The figure shows educational differences in the change of immigrants' identification with Switzerland (3 indicators) across reported dissatisfaction with the decision to move to Switzerland. This is a coefficient plot with interaction terms and 95% CIs. Results are based on linear FE regressions, interacting education with dissatisfaction, and using panel-robust standard errors. All models control for age and pandemic year (2020). There are different numbers of observations in the right panels due to missing values in outcomes.

*Data.* MMS, waves 1–4 (2016–2022), own calculations.

## 4.2 Robustness checks and further analyses

We assessed the robustness of the results and conducted additional analyses. First, we compared the main models with different bandwidths for the smoothing procedure to investigate whether researchers who chose different bandwidths would come to similar conclusions (cf. Hudde & Jacob, 2023). The main analyses are based on a bandwidth of 2. The models with different bandwidths ( $3 [= 2 \cdot 1.5]$  and  $1.33 [= 2/1.5]$ ) revealed patterns very similar to the main model with the smaller bandwidth-model being more responsive to change but also noise (**Figure S4**). The qualitative conclusions remained the same.

Second, we examined whether using a continuous treatment may have biased the results. To do so, we used a subsample of immigrants who were completely satisfied with their migration decision in the first interview, and who then either increased their dissatisfaction once (= treated) or never (= non-treated). The results are in line with the main results, supporting the idea that greater increases in dissatisfaction are accompanied by greater consequences for immigrants (**Figure S5**).

Third, we tested whether the main results were affected by panel attrition. Less-educated participants drop out more frequently than more-educated participants (e.g. Genoni et al., 2021). Moreover, it is likely that the most disillusioned immigrants leave the panel. This all could lead to underestimations of educational differences and dissatisfaction. Logistic regression models on the probability of dropping out of the panel (**Table S6**) indeed showed that less-educated immigrants generally tended to drop out more. Also, immigrants who were dissatisfied with their decision to move tended to drop out more, but it seems that more-educated immigrants were more affected by this. These results suggest that we not only underestimated the base effect of the change in dissatisfaction on attachment, but also the educational difference in this change.

As a further test of robustness, we restricted the sample to immigrants whose highest educational qualification is from Switzerland. Being more anchored in the destination country, they should show stronger reactions to dissatisfaction with the migration decision (de Vroome et al., 2014). Compared to a model with the original analytical sample (**Table S5**), we indeed found slightly stronger negative effects of dissatisfaction with the migration decision on destination attachment for both education groups (**Table S7**).

We also tested for effect heterogeneity to ensure dissatisfaction effects did not differ substantially between subgroups. Interaction models for each education group revealed no substantial differences between immigrants with stable intentions to leave, stable intentions to stay, and stable uncertainty about their intentions (**Table S8**). Having the same relationship status throughout the survey period did not make a difference either (**Table S8**), nor are the results driven by large immigrant groups in the sample that are largely found in only one of the education groups (**Figure S6**). Also, results did not differ between immigrants from countries of origin in which inhabitants are perceived as looking similar to or different from Swiss people (**Tables S9 and S10**).

Given the role of discrimination in the literature on the integration paradox, a final exploration looked at reports of experienced discrimination from two perspectives: one using discrimination as an alternative outcome (cf. Schaeffer & Kas, 2023), the other treating discrimination as a mediating factor to examine whether it accounts for the stronger decline in more-educated immigrants' destination attachment if their dissatisfaction with the migration decision increased (cf. Verkuyten, 2016). Using discrimination as an outcome yielded results consistent with those for destination attachment. Experienced discrimination rose with increasing dissatisfaction, especially for more-educated immigrants

(Table S11). The mediation effect of discrimination was weak at best (Figure S7 and Table S12), echoing previous findings (Geurts et al., 2020) (see Supplement 7 for a discussion of these additional analyses).

## 5 Discussion and conclusion

This study complements existing research on the so-called integration paradox—the observation that more-educated immigrants who are considered well-integrated from a socioeconomic perspective may feel less at home and accepted in the destination country than less-educated immigrants who are considered less well-integrated (Verkuyten, 2016). Two basic and mutually independent mechanisms have been used in the literature to theoretically explain this paradox: (1) highly educated immigrants' higher probability to experience unmet migration expectations and (2) their stronger reactions if expectations are not met (Schaeffer & Kas, 2023). Previous research mainly focused on investigating the first mechanism (e.g. Steinmann, 2019), and the few studies dealing with the consequences of unmet expectations used cross-sectional designs and/or did not compare less- to more-educated immigrants (Geurts et al., 2021; Lindemann, 2020; Schaeffer, 2019). Overall, this situation has left unanswered the question of whether more-educated immigrants indeed react more strongly to unmet expectations than their less-educated counterparts do. With our longitudinal study design and comparison of less- and more-educated immigrants in Switzerland, we provide original empirical evidence in support of the second mechanism: Although highly educated immigrants are on average more satisfied with their migration decision, when this satisfaction turns into dissatisfaction, their attachment to the destination country weakens significantly more than that of less-educated immigrants.

The finding that highly educated immigrants react particularly strongly to unmet migration expectations provides relevant insights into the emergence of the integration paradox. Since these reactions were found under consideration of time-constant individual characteristics and were robust to a wide range of sensitivity checks, they point to a plausible fundamental mechanism. For example, stronger reactions may occur among both less and more visible immigrants alike—the latter being the group on which existing research has mainly focused (e.g. Flores, 2015). More visible, highly educated immigrants are more aware of their minority status than less visible ones, and previous research has demonstrated the more negative outcomes that can result from this heightened awareness (e.g. Diehl et al., 2021). Additional analyses, however, suggest that immigrant visibility alone is not a sufficient condition for how detrimental individual reactions to unmet expectations are (Section 4.2, but also Geurts & Phalet, 2024).

Furthermore, our findings are in line with the hypothesis of rising expectations (e.g. Verkuyten, 2016), indicating that more-educated immigrants have developed particularly high expectations of migration—hence the finding of their stronger reactions when such expectations are not met. However, future research should explore ways to assess the extent of expectations more directly. This may be

easier done in fields other than immigration, given that following immigrants over time and space can be challenging (Zufferey et al., 2021). To better understand how expectations are created and fail to be met in migration situations, we should also seek ways to study unmet migration expectations through the lens of changing conditions in the country of origin and related plans of return migration.

Given that we have highlighted reactions to unmet expectations, the impression may arise that highly educated immigrants are louder in complaining about experienced injustice in life, although they arguably face fewer challenges and less unequal treatment compared to less privileged immigrants (cf. Cooney, 2009). Instead, we suggest that it is necessary to recognize the manifold challenges immigrants in general face and to focus on their proactive responses to disappointment and the capability to turn challenges into opportunities, a perspective in line with arguments found in the sociology of education (Stocké, 2019). In keeping with this thought, the findings also speak to the sociological literature beyond the integration paradox. The mechanism investigated here, which revolves around unmet expectations, could represent a more general mechanism, making it a worthy topic of investigation in other fields of research. In particular, the mechanism may be applicable to individuals with high social status more generally, such as individuals from high socio-economic backgrounds (e.g., see Salikutluk, 2016) or career-oriented women in male-dominated occupations (e.g. Calvard, 2018; Vaughn et al., 2020).

Although the FE models have implicitly controlled for countries and regions of origin, future work should replicate these findings in different contexts of reception. This would allow us to investigate whether reception contexts change what recent immigrants expect, and to examine how individual integration trajectories are affected by regional policy differences in catering to differently qualified immigrants. To do so, more fine-grained data would be of benefit, especially on the types of expectations that have not been met and how these contribute differently to outcomes.

Even though the FE panel analysis is a step forward in the study of the integration paradox, we cannot completely rule out the existence of further time-varying factors that may threaten the internal validity of the results. Similarly, measurement errors and reverse causality can never be fully excluded in FE estimates (Brüderl & Ludwig, 2015; Leszczensky & Wolbring, 2022; Vaisey & Miles, 2017). With respect to measurement errors, additional analyses showed that, if anything, panel attrition has contributed to an *underestimation* of the results, raising new questions for future research about whether more-educated immigrants with unmet expectations are more likely to drop out of studies or even leave the country more often when expectations are not met. The latter would not only counter efforts to combat labour shortages, but would also have consequences for social security systems and employers who have invested in immigrant workers.

Although we would consider reverse causality implausible on theoretical grounds, on the basis of this study's research design, it cannot be ruled out. Such a reversed argument would regard a reduction



in destination attachment as a cause for dissatisfaction with the migration decision. Although unlikely among the recent immigrants we studied, a corresponding argument could revolve around growing attachment to another place, which then lowers the importance of emotional bonds to the current destination country, leading to a weakened destination attachment and an increase in dissatisfaction with the migration decision because one would prefer to be somewhere else. To make sense of the educational differences that we found, one could speculate that highly educated immigrants are less bound to certain places and thus more likely to consider other destinations as their potential home. Then again, it is difficult to imagine that such an alternative explanation is caused by something other than a preceding increase in dissatisfaction with the migration decision (e.g. because of an unfortunate job situation or having found a partner somewhere else).

Overall, the findings increase our understanding of how the integration paradox can come about. We highlighted that the present study also raises several new questions for future research on the paradox and beyond, and that more tangible aspects such as economic participation or language acquisition are—although undoubtedly crucial—insufficient to fully understand integration. We agree with others who have called for a more “subject-centered approach” to monitor immigrant populations that also captures immigrants’ self-perceived integration (e.g. attachment, self-identification, perceived discrimination) (Harder et al., 2018; Lee & Sheng, 2023). Even though the integration paradox may indeed be a sign of progress in the structural integration of immigrants (Kasinitz & Waters, 2023), existing monitoring that is focused on objective factors will let immigrants fall through the cracks if their subjective reality does not match the so-called objective factors. The costs are born by the immigrants themselves, but also by the economy and society at large. If integration policies are to be more than just intentions on paper, they must take account of individual integration trajectories and the fact that reactions to unmet expectations may vary accordingly.

## 6 References

- Ashmore, R. D., Deaux, K., & McLaughlin-Volpe, T. (2004). An Organizing Framework for Collective Identity: Articulation and Significance of Multidimensionality. *Psychological Bulletin*, 130(1), 80–114. <https://doi.org/10.1037/0033-2909.130.1.80>
- Baumeister, R. F., & Scher, S. J. (1988). Self-defeating behavior patterns among normal individuals: Review and analysis of common self-destructive tendencies. *Psychological Bulletin*, 104(1), 3–22. <https://doi.org/10.1037/0033-2909.104.1.3>
- Belloni, M. (2019). *The big gamble: The migration of Eritreans to Europe*. University of California Press.
- Bennour, S., Manatschal, A., & Ruedin, D. (2022). How political reception contexts shape location decisions of immigrants. *Journal of Ethnic and Migration Studies*, 48(19), 4730–4753. <https://doi.org/10.1080/1369183X.2022.2098468>
- Brüderl, J., & Ludwig, V. (2015). Fixed-Effects Panel Regression. In H. Best & C. Wolf (Eds.), *The Sage Handbook of Regression Analysis and Causal Inference* (pp. 327–357). Sage.
- Calvard, T. (2018). Impostor syndrome as a way of understanding gender and careers. In A. M. Broadbridge & S. L. Fielden (Eds.), *Research Handbook of Diversity and Careers*. Edward Elgar Publishing. <https://doi.org/10.4337/9781785365607.00023>
- Collins, F. L. (2018). Desire as a theory for migration studies: Temporality, assemblage and becoming in the narratives of migrants. *Journal of Ethnic and Migration Studies*, 44(6), 964–980. <https://doi.org/10.1080/1369183X.2017.1384147>
- Cooney, M. (2009). Ethnic conflict without ethnic groups: A study in pure sociology. *The British Journal of Sociology*, 60(3), 473–492. <https://doi.org/10.1111/j.1468-4446.2009.01252.x>
- Czaika, M. (2015). Migration and Economic Prospects. *Journal of Ethnic and Migration Studies*, 41(1), 58–82. <https://doi.org/10.1080/1369183X.2014.924848>
- de Haas, H. (2021). A theory of migration: The aspirations-capabilities framework. *Comparative Migration Studies*, 9(1), 8. <https://doi.org/10.1186/s40878-020-00210-4>

- de Vroome, T., Martinovic, B., & Verkuyten, M. (2014). The integration paradox: Level of education and immigrants' attitudes towards natives and the host society. *Cultural Diversity and Ethnic Minority Psychology, 20*(2), 166–175. <https://doi.org/10.1037/a0034946>
- Diehl, C., Liebau, E., & Mühlau, P. (2021). How Often Have You Felt Disadvantaged? Explaining Perceived Discrimination. *KZfSS Kölner Zeitschrift Für Soziologie Und Sozialpsychologie, 73*(1), 1–24. <https://doi.org/10.1007/s11577-021-00738-y>
- Ellemers, N. (1993). The Influence of Socio-structural Variables on Identity Management Strategies. *European Review of Social Psychology, 4*(1), 27–57. <https://doi.org/10.1080/14792779343000013>
- Ette, A., & Witte, N. (2021). Brain Drain or Brain Circulation? Economic and Non-Economic Factors Driving the International Migration of German Citizens. In M. Erlinghagen, A. Ette, N. F. Schneider, & N. Witte (Eds.), *The Global Lives of German Migrants* (pp. 65–83). Springer International Publishing. [https://doi.org/10.1007/978-3-030-67498-4\\_4](https://doi.org/10.1007/978-3-030-67498-4_4)
- Flores, R. D. (2015). The Resurgence of Race in Spain: Perceptions of Discrimination Among Immigrants. *Social Forces, 94*(1), 237–269. <https://doi.org/10.1093/sf/sov056>
- Genoni, A. (2022). *Status and Ethnic Identity. A Study on First- and Second-Generation Migrants in Germany*. Verlag Barbara Budrich. <https://doi.org/10.3224/84742575>
- Genoni, A., Décieux, J. P., Ette, A., & Witte, N. (2021). Setting up Probability-Based Online Panels of Migrants with a Push-to-Web Approach: Lessons Learned from the German Emigration and Remigration Panel Study (GERPS). In M. Erlinghagen, A. Ette, N. F. Schneider, & N. Witte (Eds.), *The Global Lives of German Migrants* (pp. 289–307). Springer International Publishing. [https://doi.org/10.1007/978-3-030-67498-4\\_16](https://doi.org/10.1007/978-3-030-67498-4_16)
- Geurts, N., Davids, T., & Spierings, N. (2021). The lived experience of an integration paradox: Why high-skilled migrants from Turkey experience little national belonging in the Netherlands. *Journal of Ethnic and Migration Studies, 47*(1), 69–87. <https://doi.org/10.1080/1369183X.2020.1770062>

- Geurts, N., Lubbers, M., & Spierings, N. (2020). Structural position and relative deprivation among recent migrants: A longitudinal take on the integration paradox. *Journal of Ethnic and Migration Studies*, 46(9), 1828–1848. <https://doi.org/10.1080/1369183X.2019.1675499>
- Geurts, N., & Phalet, K. (2024). Succeeding without belonging? A double comparison of migrants' socio-economic attainment and national belonging across origin and residence countries. *European Sociological Review*, jcae008. <https://doi.org/10.1093/esr/jcae008>
- Halvorsrud, K. (2019). The maintenance of white privilege: The case of white South African migrants in the UK. *Ethnicities*, 19(1), 95–116. <https://doi.org/10.1177/1468796817712311>
- Harder, N., Figueroa, L., Gillum, R. M., Hangartner, D., Laitin, D. D., & Hainmueller, J. (2018). Multidimensional measure of immigrant integration. *Proceedings of the National Academy of Sciences*, 115(45), 11483–11488. <https://doi.org/10.1073/pnas.1808793115>
- Hobfoll, S. E. (1989). Conservation of resources—A new attempt at conceptualizing stress. *American Psychologist*, 44(3), 513–524.
- Hudde, A., & Jacob, M. (2023). There's More in the Data! Using Month-Specific Information to Estimate Changes Before and After Major Life Events. *Sociological Science*, 10, 830–856. <https://doi.org/10.15195/v10.a29>
- Kao, G., & Tienda, M. (1995). Optimism and Achievement: The Educational Performance of Immigrant Youth. *Social Science Quarterly*, 76(1), 1–19.
- Kasinitz, P., & Waters, M. C. (2023). Becoming white or becoming mainstream?: Defining the endpoint of assimilation. *Journal of Ethnic and Migration Studies*, 1–19. <https://doi.org/10.1080/1369183X.2023.2293298>
- Kratz, F. (2023). A liberalizing effect of happiness? The impact of improvements and deteriorations in different dimensions of subjective well-being on concerns about immigration. *European Sociological Review*, jcad059. <https://doi.org/10.1093/esr/jcad059>
- Lancee, B., & Bol, T. (2017). The Transferability of Skills and Degrees: Why the Place of Education Affects Immigrant Earnings. *Social Forces*, 96(2), 691–716.

- Lee, J., & Sheng, D. (2023). The Asian American assimilation paradox. *Journal of Ethnic and Migration Studies*, 1–27. <https://doi.org/10.1080/1369183X.2023.2183965>
- Leszczensky, L., & Wolbring, T. (2022). How to Deal With Reverse Causality Using Panel Data? Recommendations for Researchers Based on a Simulation Study. *Sociological Methods & Research*, 51(2), 837–865. <https://doi.org/10.1177/0049124119882473>
- Lindemann, K. (2020). How Labor-Market Integration Affects Perceptions of Discrimination: School-to-Apprenticeship Transitions of Youth with Migration Background in Germany. *International Migration Review*, 54(4), 1045–1071. <https://doi.org/10.1177/0197918319885892>
- Longhi, S., & Nandi, A. (2015). *A Practical Guide to Using Panel Data*. SAGE Publications, Inc. <https://doi.org/10.4135/9781473910485>
- Ludwig, V., & Brüderl, J. (2021). What You Need to Know When Estimating Impact Functions with Panel Data for Demographic Research. *Comparative Population Studies*, 46, 453–485. <https://doi.org/10.12765/CPoS-2021-16>
- Ormel, J., Lindenberg, S., Steverink, N., & Verbrugge, L. M. (1999). Subjective Well-Being and Social Production Functions. *Social Indicators Research*, 46(1), 61–90. <https://doi.org/10.1023/A:1006907811502>
- Pettigrew, T. F., Christ, O., Wagner, U., Meertens, R. W., van Dick, R., & Zick, A. (2008). Relative Deprivation and Intergroup Prejudice. *Journal of Social Issues*, 64(2), 385–401. <https://doi.org/10.1111/j.1540-4560.2008.00567.x>
- Ranjbar, S., & Sperlich, S. (2020). A Note on Empirical Studies of Life-Satisfaction: Unhappy with Semiparametrics? *Journal of Happiness Studies*, 21(6), 2193–2212. <https://doi.org/10.1007/s10902-019-00165-z>
- Reinold, J., Hooijen, I., & Özer, M. (2024). “If you smile, they smile”: Explaining highly educated migrants’ feelings of being welcome in the Euregio Meuse-Rhine. *Population, Space and Place*, e2759. <https://doi.org/10.1002/psp.2759>

- Röder, A., & Mühlau, P. (2012). Low Expectations or Different Evaluations: What Explains Immigrants' High Levels of Trust in Host-Country Institutions? *Journal of Ethnic and Migration Studies*, 38(5), 777–792. <https://doi.org/10.1080/1369183X.2012.667986>
- Salikutluk, Z. (2016). Why Do Immigrant Students Aim High? Explaining the Aspiration–Achievement Paradox of Immigrants in Germany. *European Sociological Review*, 32(5), 581–592.
- Schaeffer, M. (2019). Social Mobility and Perceived Discrimination: Adding an Intergenerational Perspective. *European Sociological Review*, 35(1), 65–80. <https://doi.org/10.1093/esr/jcy042>
- Schaeffer, M., & Kas, J. (2023). The Integration Paradox: A Review and Meta-Analysis of the Complex Relationship Between Integration and Reports of Discrimination. *International Migration Review*, 019791832311708. <https://doi.org/10.1177/01979183231170809>
- Spanner, F., & Diehl, C. (2021). Settlers, target-earners, young professionals. Distinct migrant types, distinct integration trajectories? *International Migration*, imig.12904. <https://doi.org/10.1111/imig.12904>
- Steiner, I., & Wanner, P. (Eds.). (2019). *Migrants and Expats: The Swiss Migration and Mobility Nexus*. Springer International Publishing. <https://doi.org/10.1007/978-3-030-05671-1>
- Steinmann, J.-P. (2019). The paradox of integration: Why do higher educated new immigrants perceive more discrimination in Germany? *Journal of Ethnic and Migration Studies*, 45(9), 1377–1400. <https://doi.org/10.1080/1369183X.2018.1480359>
- Stocké, V. (2019). The rational choice paradigm in the sociology of education. In R. Becker, *Research Handbook on the Sociology of Education* (pp. 57–68). Edward Elgar Publishing. <https://doi.org/10.4337/9781788110426.00011>
- Suarez-Orozco, M. M. (1987). “Becoming Somebody”: Central American Immigrants in U.S. Inner-City Schools. *Anthropology & Education Quarterly*, 18(4), 287–299. <https://doi.org/10.1525/aeq.1987.18.4.04x0020t>
- Tyler, T. R., & Blader, S. L. (2003). The Group Engagement Model: Procedural Justice, Social Identity, and Cooperative Behavior. *Personality and Social Psychology Review*, 7(4), 349–361. [https://doi.org/10.1207/S15327957PSPR0704\\_07](https://doi.org/10.1207/S15327957PSPR0704_07)

- Vaisey, S., & Miles, A. (2017). What You Can—And Can't—Do With Three-Wave Panel Data. *Sociological Methods & Research*, 46(1), 44–67. <https://doi.org/10.1177/0049124114547769>
- van Doorn, M., Scheepers, P., & Dagevos, J. (2013). Explaining the Integration Paradox Among Small Immigrant Groups in the Netherlands. *Journal of International Migration and Integration*, 14(2), 381–400. <https://doi.org/10.1007/s12134-012-0244-6>
- Vaughn, A. R., Taasoobshirazi, G., & Johnson, M. L. (2020). Impostor phenomenon and motivation: Women in higher education. *Studies in Higher Education*, 45(4), 780–795. <https://doi.org/10.1080/03075079.2019.1568976>
- Verkuyten, M. (2016). The Integration Paradox: Empiric Evidence From the Netherlands. *American Behavioral Scientist*, 60(5–6), 583–596. <https://doi.org/10.1177/0002764216632838>
- Wanner, P., D'Amato, G., Pont, A., & Hategekimana, V. (2023). *Migration Mobility Survey, Survey on living as a migrant in Switzerland 2016-2018-2020-2022* (First version of fourth wave) [dataset]. Zenodo. <https://doi.org/10.5281/ZENODO.7756023>
- Wodtke, G. T. (2012). The Impact of Education on Intergroup Attitudes: A Multiracial Analysis. *Social Psychology Quarterly*, 75(1), 80–106. <https://doi.org/10.1177/0190272511430234>
- Zagefka, H., & Brown, R. (2005). Comparisons and Perceived Deprivation in Ethnic Minority Settings. *Personality and Social Psychology Bulletin*, 31(4), 467–482. <https://doi.org/10.1177/0146167204271711>
- Zschirnt, E., & Ruedin, D. (2016). Ethnic discrimination in hiring decisions: A meta-analysis of correspondence tests 1990–2015. *Journal of Ethnic and Migration Studies*, 42(7), 1115–1134. <https://doi.org/10.1080/1369183X.2015.1133279>
- Zufferey, J., Steiner, I., & Ruedin, D. (2021). The Many Forms of Multiple Migrations: Evidence from a Sequence Analysis in Switzerland, 1998 to 2008. *International Migration Review*, 55(1), 254–279. <https://doi.org/10.1177/0197918320914239>

## 7 Supplemental materials

### 7.1 Supplement 1: Sample characteristics

Table S1. Overview of sample characteristics, by educational level

	Non-tertiary education		Tertiary education	
	Mean	SD	Mean	SD
Age (years)	42.6	9.46	41.6	8.95
Residence duration (years)	6.8	3.53	6.8	3.60
Self-rated language comprehension (0-4)	3.0	1.05	2.86	1.11
Dissatisfaction with the decision to migrate to Switzerland (0-10)	1.3	1.98	1.2	1.65
Attachment to Switzerland (0-7)	5.4	1.5	5.2	1.55
Feeling belonging to Swiss society (0-3)°	2.1	0.78	2.0	0.80
Feeling accepted by Swiss society (0-3)°	2.1	0.79	2.0	0.79
	Percentage		Percentage	
Female participants	50.2		49.3	
In partnership	85.7		87.1	
C permit or Swiss citizenship	45.0		49.0	
Experiences of discrimination or prejudice in 24 months before interview	46.9		53.1	
<i>Intentions to stay</i>				
No	11.4		11.9	
Don't know	34.4		39.1	
Yes	54.2		49.0	
	<i>n</i>		<i>n</i>	
<i>Participants from five most common countries of origin in each education group</i>				
1. Italy   India	160		329	
2. Germany   France	129		316	
3. Portugal   United Kingdom	116		306	
4. Austria   Germany	113		275	
5. Brazil   United States	72		259	
<i>Observations per wave</i>				
Wave 1 (2016)	566		1,471	
Wave 2 (2018)	1,114		2,912	
Wave 3 (2020)	1,233		3,260	
Wave 4 (2022)	864		2,465	
Total observations	3,777		10,108	
Total respondents	1,489		3,751	

<sup>°</sup> Restricted sample (waves 2-4)

Data. MMS, waves 1-4, own calculations.

Table S2. Total number of increases in dissatisfaction with the decision to move to Switzerland during the survey among immigrants with non-tertiary education



Dissatisfaction with the decision to move (from 0 = “completely satisfied” to 10 = “not at all satisfied”)												
	0	1	2	3	4	5	6	7	8	9	10	Total
0		147	93	29	16	22	1	4	0	3	14	329
1			60	30	9	8	3	0	1	0	0	111
2				37	13	13	0	2	1	0	0	66
3					15	11	5	1	0	0	0	32
4						10	6	3	0	2	1	22
5							8	3	2	1	4	18
6								3	3	1	1	8
7									0	0	2	2
8										4	0	4
9											0	0
10												
Total		147	153	96	53	64	23	16	7	11	22	592

*Note.* The numbers in the matrix indicate the total number of increases in dissatisfaction for the given response categories (0 to 10) across all survey time points. For example, the matrix cell 0:1 indicates that 147 participants increased their dissatisfaction from 0 to 1 between two survey time points. Participants were counted as many times as they reported increases in dissatisfaction between two survey time points.

*Data.* MMS, waves 1–4 (2016–2022), own calculations.

Table S3. Total number of increases in dissatisfaction with the decision to move to Switzerland during the survey among immigrants with tertiary education

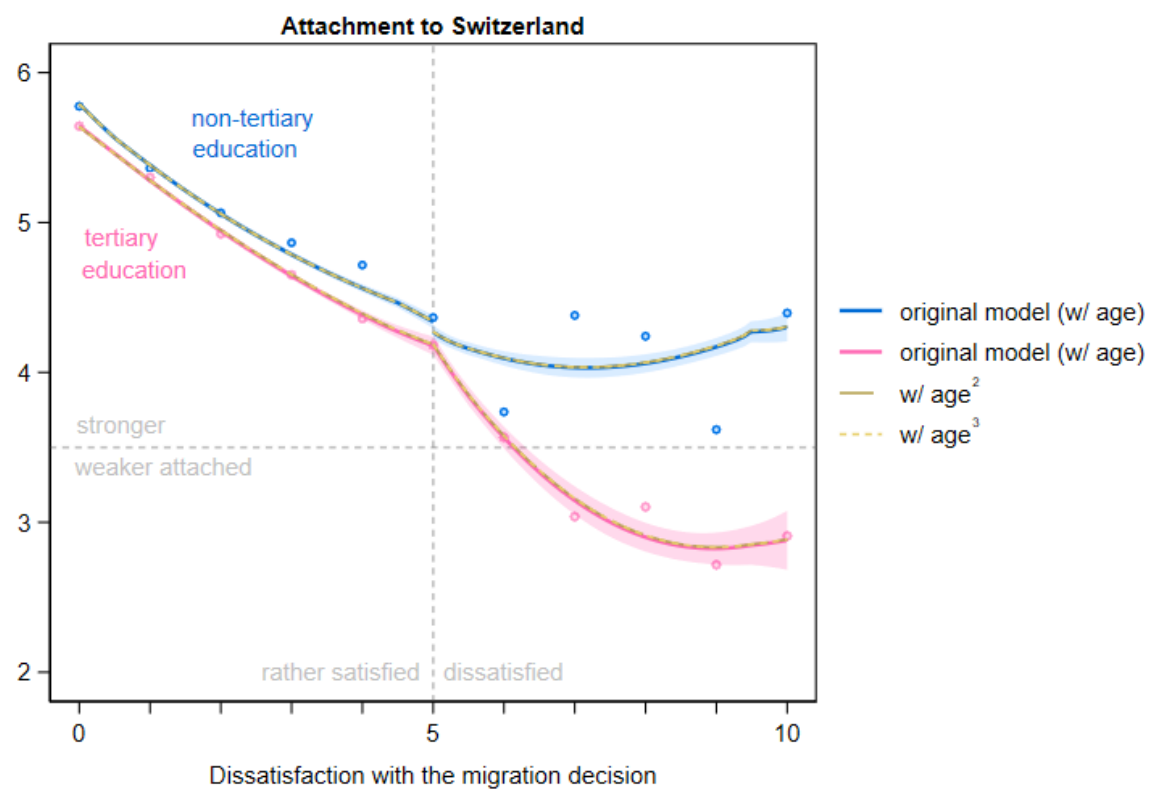
Dissatisfaction with the decision to move (from 0 = “completely satisfied” to 10 = “not at all satisfied”)												
	0	1	2	3	4	5	6	7	8	9	10	Total
0		445	191	54	18	15	4	2	0	0	4	733
1			211	88	20	13	4	0	2	0	0	338
2				118	49	28	7	3	2	2	1	210
3					36	38	7	4	3	1	1	90
4						28	5	3	3	1	2	42
5							9	7	2	2	2	22
6								2	1	1	0	4
7									2	3	2	7
8										1	0	1
9											1	1
10												
Total		445	402	260	123	122	36	21	15	11	13	1,448

*Note.* The numbers in the matrix indicate the total number of increases in dissatisfaction for the given response categories (0 to 10) across all survey time points. For example, the matrix cell 0:1 indicates that 445 participants increased their dissatisfaction from 0 to 1 between two survey time points. Participants were counted as many times as they reported increases in dissatisfaction between two survey time points.

*Data.* MMS, waves 1–4 (2016–2022), own calculations.

## 7.2 Supplement 2: Models with reference to main results (Figure 2)

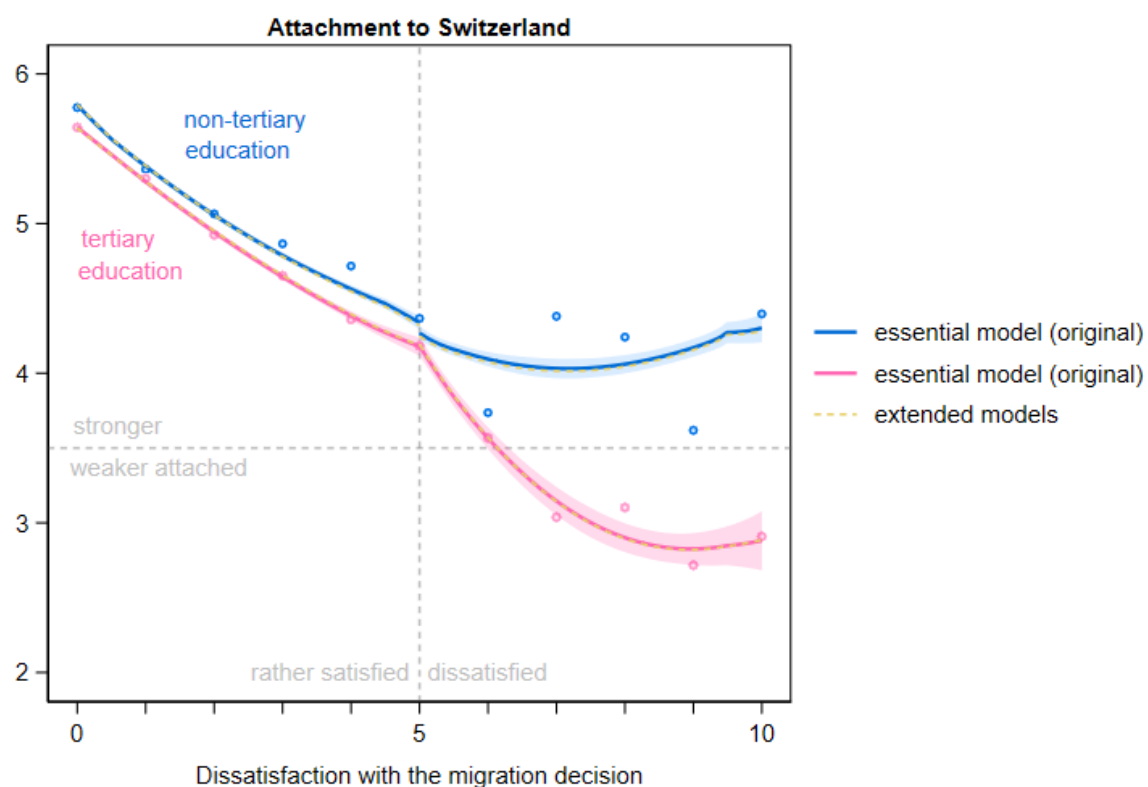
Figure S1. Considering different specifications of age: Changes in immigrants' attachment to Switzerland if dissatisfaction with the decision to move to Switzerland increased, by educational level



*Note.* Predicted education-specific marginal values (the dots) are based on separate linear FE regressions with panel-robust standard errors. Trend lines are based on LOESS (bandwidth = 2). All models control for pandemic year (2020). Sample size:  $n_{obs.} = 13,890$ ,  $n_{ind.} = 5,242$ .

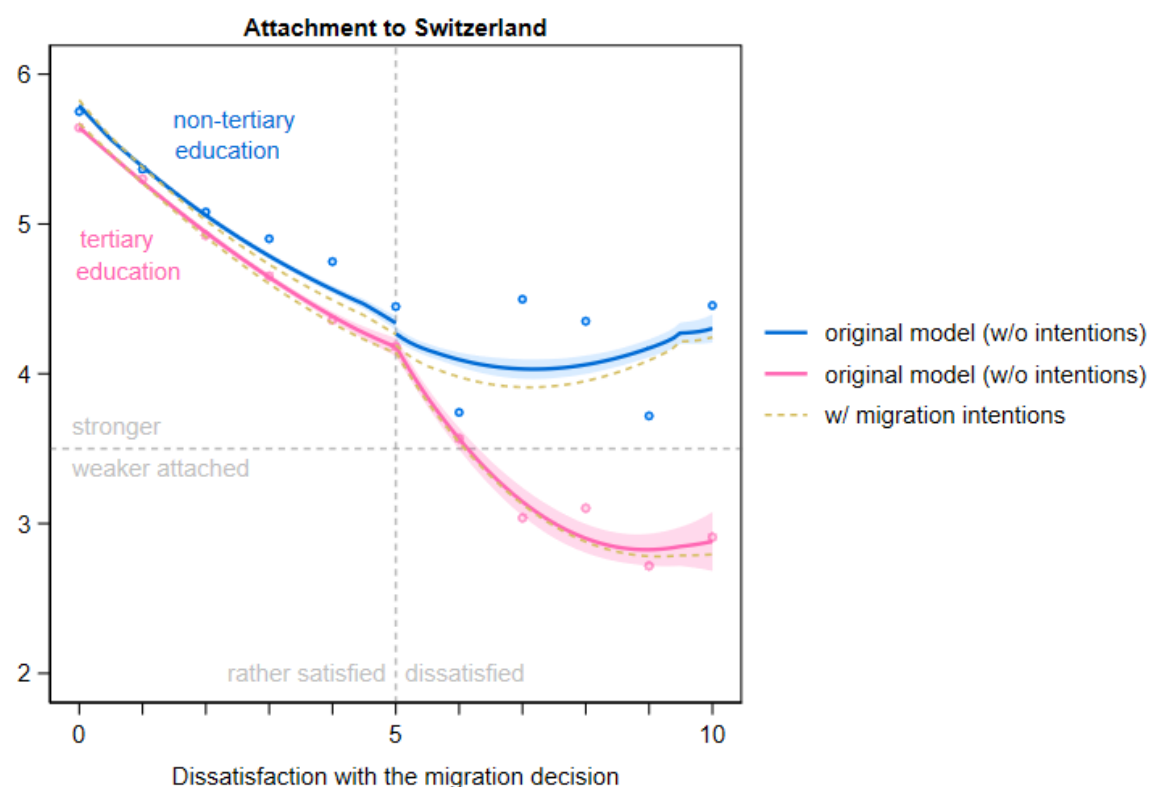
*Data.* MMS, waves 1–4 (2016–2022), own calculations.

Figure S2. Comparing essential to extended models: Changes in immigrants' attachment to Switzerland if dissatisfaction with the decision to move to Switzerland increased, by educational level



*Note.* Predicted education-specific marginal values (the dots) are based on separate linear FE regressions with panel-robust standard errors. Trend lines are based on LOESS (bandwidth = 2). Extended models account for changes in residence duration, language comprehension and permission status. Sample size of extended models:  $n_{\text{obs.}} = 13,890$ ,  $n_{\text{ind.}} = 5,242$ .  
*Data.* MMS, waves 1–4 (2016–2022), own calculations.

Figure S3. Accounting for intentions to migrate: Changes in immigrants' attachment to Switzerland if dissatisfaction with the decision to move to Switzerland increased, by educational level



*Note.* Predicted education-specific marginal values (the dots) are based on separate linear FE regressions with panel-robust standard errors. Trend lines are based on LOESS (bandwidth = 2). All models control for pandemic year (2020). Sample size with migration intentions:  $n_{\text{obs.}} = 13,889$ ,  $n_{\text{ind.}} = 5,242$ .

*Data.* MMS, waves 1–4 (2016–2022), own calculations.

Table S4. Main results based on FE ordered logit models: Changes in immigrants' attachment to Switzerland if dissatisfaction with the decision to move to Switzerland increased, by educational level

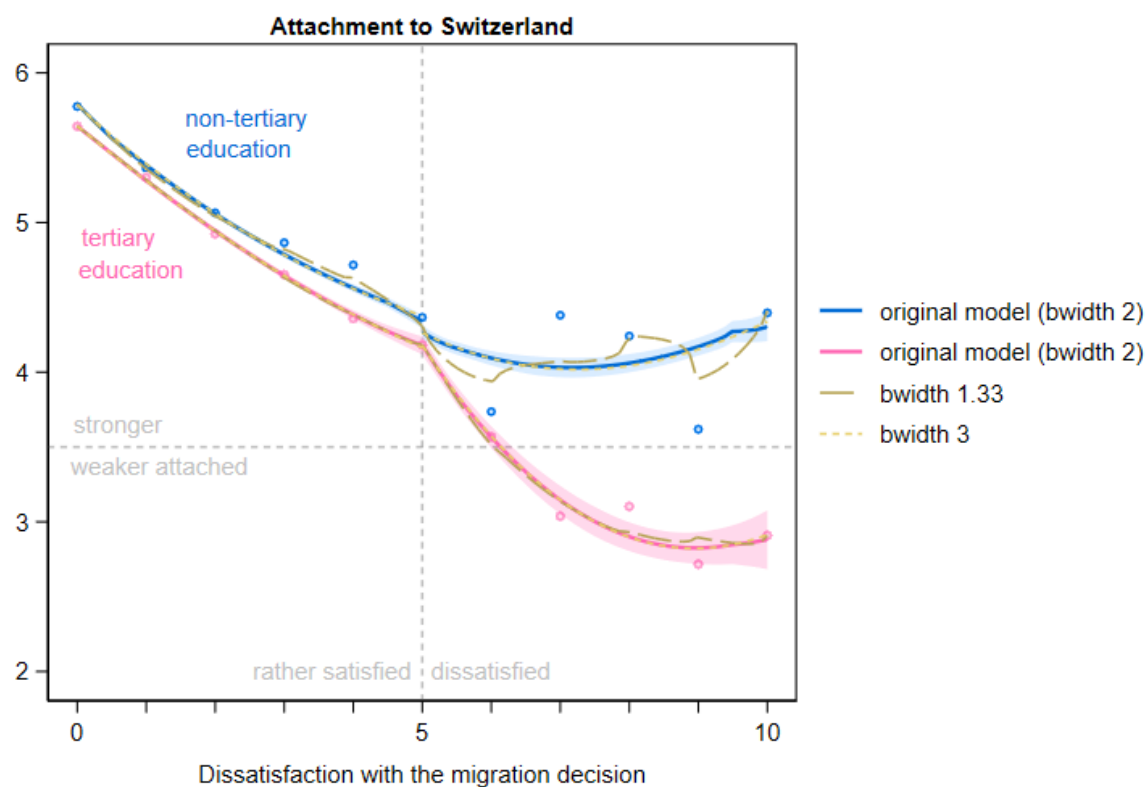
	Non-tertiary education		Tertiary education		Interaction	
	<i>Coef.</i>	<i>SE</i>	<i>Coef.</i>	<i>SE</i>	<i>Coef.</i>	<i>SE</i>
Dissatisfaction with the decision to move (DDM)	0.66***	(0.040)	0.58***	(0.021)	0.66***	(0.040)
DDM x tertiary education					0.88+	(0.062)
Age	1.08**	(0.026)	1.20***	(0.018)	1.17***	(0.005)
Pandemic year 2020	1.07	(0.087)	1.02	(0.049)	1.04	(0.043)
<i>n</i> (respondents)	1,019		2,584		3,603	
<i>n</i> (obs.)	2,683		7,267		9,950	
Pseudo $R^2$	0.11		0.16		0.13	

+  $p < 0.1$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$ .

Note. Odds ratios from separate FE ordered logit regressions with robust standard errors.

Data. MMS, waves 1–4 (2016–2022), own calculations.

Figure S4. Comparing models with different bandwidths: Changes in immigrants' attachment to Switzerland if dissatisfaction with the decision to move to Switzerland increased, by educational level



*Note.* Predicted education-specific marginal values (the dots) are based on separate linear FE regressions with panel-robust standard errors. Trend lines are based on LOESS with different bandwidths. All models control for age and pandemic year (2020). Sample size:  $n_{\text{obs.}} = 13,890$ ,  $n_{\text{ind.}} = 5,242$ .

*Data.* MMS, waves 1–4 (2016–2022), own calculations.

Table S5. Linear trend model of changes in immigrants' attachment to Switzerland and how these changes relate to increases in their dissatisfaction with the decision to move to Switzerland, by educational level

	Non-tertiary education		Tertiary education		Interaction	
	<i>Coef.</i>	<i>SE</i>	<i>Coef.</i>	<i>SE</i>	<i>Coef.</i>	<i>SE</i>
Dissatisfaction with the decision to move (DDM)	-0.22***	(0.024)	-0.30***	(0.015)	-0.22***	(0.024)
DDM x tertiary education					-0.07**	(0.028)
Age	0.03**	(0.011)	0.07***	(0.006)	0.06***	(0.005)
Pandemic year 2020	0.02	(0.033)	0.01	(0.018)	0.01	(0.016)
<i>n</i> (respondents)	1,490		3,752		5,242	
<i>n</i> (obs.)	3,780		10,110		13,890	
adj. within- $R^2$	0.10		0.15		0.13	

\*\*  $p < 0.01$ , \*\*\*  $p < 0.001$ .

Note. Coefficients from separate FE panel regressions with panel-robust standard errors.

Data. MMS, waves 1–4 (2016–2022), own calculations.

### 7.3 Supplement 3: Continuous treatment bias

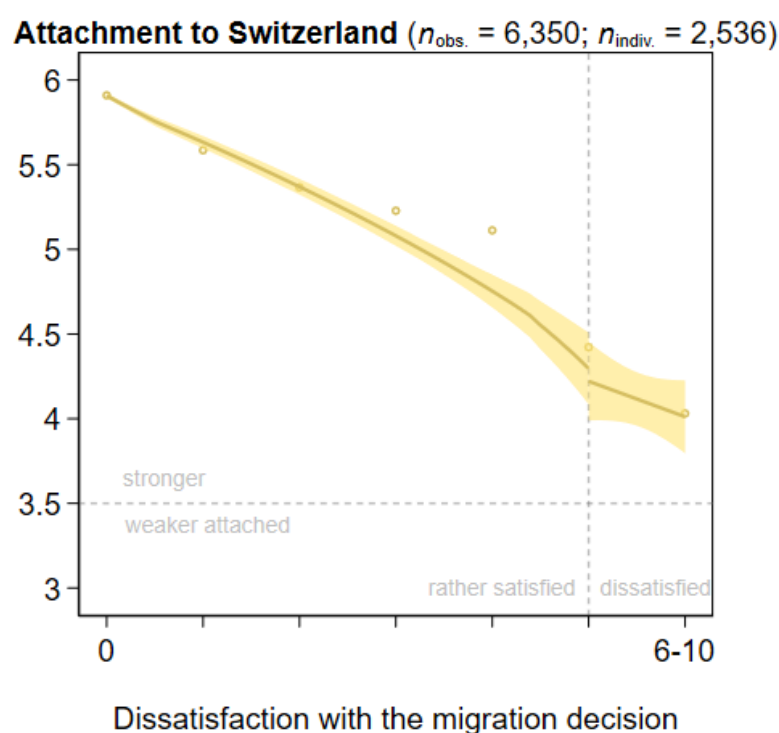
The main analyses are potentially biased because the treatment (dissatisfaction with the migration decision) is continuous, meaning that it can change from wave to wave and in different directions (Ludwig & Brüderl, 2021; Vaisey & Miles, 2017). A continuous treatment implies that individuals who decrease their dissatisfaction with the decision to move are also considered in the estimates of the covariates. Moreover, it implies that individuals who have already received the treatment can in principle be treated again, which can bias the estimation of the true initial effect of an increase in dissatisfaction. To address these issues, we examined a small subsample of immigrants in analyses in which we dropped those who were considered to be “already treated” from the start. Participants who were already treated reported a dissatisfaction level other than 0 (“completely satisfied”) in their first interview. Moreover, we dropped observations with subsequent treatments per individual (both increases and decreases in dissatisfaction) so that only initial changes and subsequent observations with unchanged trajectories remained in the dataset. In addition, we kept supposedly “never treated” participants<sup>1</sup>, or immigrants who reported complete satisfaction with their decision to move throughout the

<sup>1</sup> Note that this procedure cannot completely ensure that the “never-treated” have really been completely satisfied with their decision to move to Switzerland all along. It is possible that if we had surveyed these individuals some time before the actual survey took place, they would have reported some level of dissatisfaction.



panel survey. Given this rigidly controlled but comparatively small analytical sample, we had to combine values 6 to 10 on the dissatisfaction scale and focus on its main effect, i.e. refraining from differentiated analyses by educational level. The results are shown in **Figure S5**. We observed a gradual and negative change in immigrants' destination attachment with each unit increase in dissatisfaction with the migration decision. We also found that the decline was steeper once immigrants reported a change from 0 to 5 on the dissatisfaction scale, with 5 marking the end of the positive scale range of the dissatisfaction variable.

Figure S5. Addressing continuous treatment bias: Changes in immigrants' attachment to Switzerland if dissatisfaction with the decision to move to Switzerland increased



*Note.* Predicted marginal values (the dots) are based on linear FE regressions with panel-robust standard errors. The trend line is based on LOESS (bandwidth = 2). Model controls for age and pandemic year (2020).  
*Data.* MMS, waves 1–4 (2016–2022), own calculations.

## 7.4 Supplement 4: Panel attrition

Table S6. Immigrants' probability of dropping out of the study for different levels of dissatisfaction with the decision to move to Switzerland, by educational level

	Dissatisfaction with the decision to move (from 0 = "completely satisfied" to 10 = "not at all satisfied")										
	0	1	2	3	4	5	6	7	8	9	10
Non-tertiary education	0.85 (0.006)	0.85 (0.011)	0.88 (0.011)	0.90 (0.013)	0.91 (0.017)	0.88 (0.017)	0.94 (0.020)	0.91 (0.031)	0.89 (0.037)	0.95 (0.038)	0.93 (0.026)
Tertiary education	0.71 (0.007)	0.73 (0.010)	0.76 (0.011)	0.76 (0.014)	0.82 (0.021)	0.82 (0.020)	0.80 (0.033)	0.82 (0.043)	0.89 (0.037)	0.69 (0.082)	0.92 (0.045)
Contrasts to Non-tertiary ed.	-0.14 ***	-0.11 ***	-0.12 ***	-0.13 ***	-0.09 **	-0.06 *	-0.14 ***	-0.09	0.01	-0.25 **	-0.01

\*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$ .

*Note.* Marginal values based on logistic regressions with robust standard errors and interaction between dissatisfaction and education. Standard errors in parentheses. For dropouts, information was drawn from the last wave before dropout. For the control group, information was drawn from the penultimate interview. Model controls for gender, age, and residence duration.  $N = 15,742$ .

*Data.* MMS, waves 2 and 3 (2018, 2020), own calculations.

## 7.5 Supplement 5: Education in Switzerland

Empirical evidence suggests that the context in which immigrants obtained their education matters because it, for example, affects the extent to which immigrants can convert their knowledge and skills into returns on the local job market (de Vroome et al., 2014). Immigrants who obtained their highest educational qualification in Switzerland should be more likely to use their situation in Switzerland as the reference point for evaluating their life, resulting in stronger reactions to dissatisfaction with the migration decision. **Table S7** shows results with a sample restricted to immigrants whose highest educational qualification is from Switzerland.

Table S7. Changes in immigrants' attachment to Switzerland and how these changes relate to increases in their dissatisfaction with the decision to move to Switzerland, by highest educational degree from Switzerland (cf. **Table S5**)

	Non-tertiary education		Tertiary education		Interaction	
	<i>Coef.</i>	<i>SE</i>	<i>Coef.</i>	<i>SE</i>	<i>Coef.</i>	<i>SE</i>
Dissatisfaction with the decision to move	-0.25***	(0.063)	-0.34***	(0.038)	-0.25***	(0.063)
DDM x tertiary education					-0.09	(0.073)
Age	0.03	(0.027)	0.07***	(0.014)	0.06***	(0.013)
Pandemic year 2020	0.04	(0.098)	0.03	(0.046)	0.03	(0.042)
<i>n</i> (respondents)		134		529		663
<i>n</i> (obs.)		355		1,461		1,816
adj. within- $R^2$		0.14		0.19		0.18

\*\*\*  $p < 0.001$ .

Note. B-coefficients separate from FE regressions with panel-robust standard errors.

Data. MMS, waves 1–4 (2016–2022), own calculations.

## 7.6 Supplement 6: Effect heterogeneity

Table S8. Changes in immigrants' attachment to Switzerland and how these changes relate to increases in their dissatisfaction with the decision to move to Switzerland, by stable migration intentions and relationship status

	Stable migration intentions				Stable relationship status			
	Non-tertiary education		Tertiary education		Non-tertiary education		Tertiary education	
	<i>B</i>	<i>SE</i>	<i>B</i>	<i>SE</i>	<i>B</i>	<i>SE</i>	<i>B</i>	<i>SE</i>
Dissatisfaction with the decision to move	-0.14**	(0.042)	-0.27***	(0.032)	-0.17**	(0.053)	-0.32***	(0.042)
<i>DDM x intentions to leave</i>								
no	Ref.		Ref.					
don't know	-0.01	(0.090)	-0.02	(0.076)				
yes	-0.10	(0.069)	0.05	(0.043)				
<i>DDM x partner status</i>								
single					Ref.		Ref.	
partner not born in CH					-0.06	(0.063)	0.03	(0.046)
partner born in CH					-0.09	(0.074)	0.02	(0.055)
Age	0.06***	(0.014)	0.07**	(0.008)	0.03**	(0.011)	0.07***	(0.006)
Pandemic year 2020	0.03	(0.039)	0.02*	(0.023)	0.04	(0.036)	0.02	(0.019)
<i>n</i> (respondents)	855		2,053		1,339		3,395	
<i>n</i> (obs.)	2,071		5,257		3,385		9,062	
adj. within- <i>R</i> <sup>2</sup>	0.10		0.12		0.10		0.14	

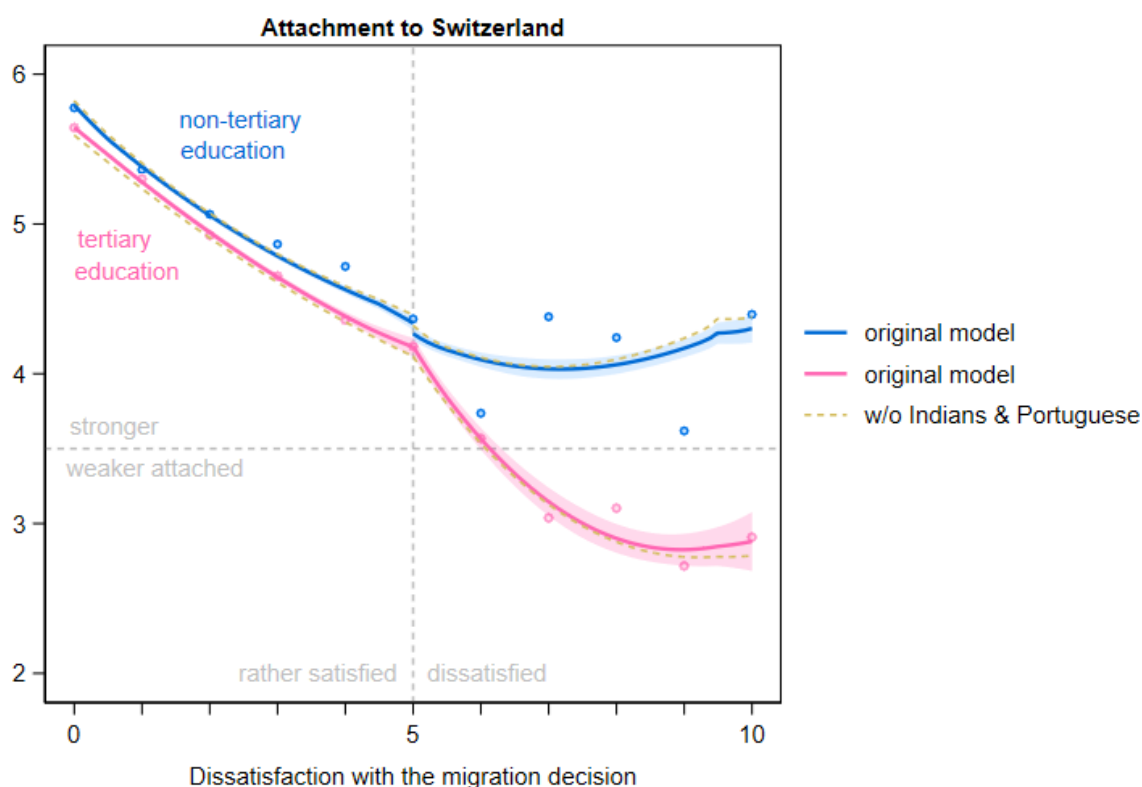
\*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$ .

Note. *B*-coefficients separate from FE regressions with panel-robust standard errors. CH = Switzerland.

Data. MMS, waves 1–4 (2016–2022), own calculations.

We further investigated whether the observed dissatisfaction effects are mainly driven by large immigrant groups in the sample that are mainly found in only one of the two education groups. We reran the main analyses after excluding Portuguese immigrants ( $n = 166$ ), of which 68 percent held non-tertiary educational degrees, and Indian immigrants ( $n = 343$ ), of which 95 percent held tertiary educational degrees. Excluding these groups did not change the interpretation of results (**Figure S6**).

Figure S6. Excluding immigrants from Portugal and India: Changes in immigrants' attachment to Switzerland if dissatisfaction with the decision to move to Switzerland increased, by educational level



Note. Predicted education-specific marginal values (the dots) are based on separate linear FE regressions with panel-robust standard errors. Trend lines are based on LOESS (bandwidth = 2). All models additionally control for pandemic year (2020). Sample size without Indians and Portuguese:  $n_{\text{obs.}} = 12,567$ ,  $n_{\text{ind.}} = 4,733$ . Data. MMS, waves 1–4 (2016–2022), own calculations.

Table S9. Investigating the role of immigrant visibility (1): Changes in less and more visible immigrants' attachment to Switzerland and how these changes relate to increases in their dissatisfaction with the decision to move to Switzerland, by educational level

	Non-tertiary education		Tertiary education	
	Coef.	SE	Coef.	SE
Dissatisfaction with the decision to move	-0.22***	(0.027)	-0.30***	(0.017)
DDM x immigrant visibility#1	0.00	(0.058)	0.01	(0.039)
Age	0.03**	(0.011)	0.07***	(0.006)
Pandemic year 2020	0.02	(0.034)	0.01	(0.018)
$n(\text{respondents})$	1,490		3,752	
$n(\text{obs.})$	3,780		10,110	
adj. within- $R^2$	0.10		0.15	

\*\*  $p < 0.01$ , \*\*\*  $p < 0.001$ .

Note. B-coefficients from separate FE panel regressions with panel-robust standard errors. Immigrant visibility#1 = 1 if origin country lies in Sub-Saharan Africa (excluding South Africa), the Caribbean, the Indian subcontinent, East or Southeast Asia. South Africa was excluded because although most of the population of South Africa are Blacks, most South Africans living in Europe are white due to historically greater access to resources and opportunities for emigration (e.g. Halvorsrud, 2019).

Data. MMS, waves 1–4 (2016–2022), own calculations.

Table S10. Investigating the role of immigrant visibility (2): Changes in less and more visible immigrants' attachment to Switzerland and how these changes relate to increases in their dissatisfaction with the decision to move to Switzerland, by educational level

	Non-tertiary education		Tertiary education	
	<i>Coef.</i>	<i>SE</i>	<i>Coef.</i>	<i>SE</i>
Dissatisfaction with the decision to move	-0.22***	(0.028)	-0.30***	(0.017)
DDM x immigrant visibility#2	0.01	(0.053)	-0.00	(0.036)
Age	0.03**	(0.011)	0.07***	(0.006)
Pandemic year 2020	0.02	(0.034)	0.01	(0.018)
<i>n</i> (respondents)	1,490		3,752	
<i>n</i> (obs.)	3,780		10,110	
adj. within- <i>R</i> <sup>2</sup>	0.10		0.15	

\*\*  $p < 0.01$ , \*\*\*  $p < 0.001$ .

*Note.* B-coefficients from separate FE panel regressions with panel-robust standard errors. Immigrant visibility#2 = Immigrant visibility#2, additionally including countries with more than 50 percent of the population being Muslim.

*Data.* MMS, waves 1–4 (2016–2022), own calculations.

## 7.7 Supplement 7: Discrimination

With respect to unmet migration expectations, reports of discrimination can be conceptualised as either explanandum or explanans. This reciprocal causality violates the strict exogeneity assumption of FE regressions and biases their estimates. On the one hand, actual discrimination (e.g. racist behaviour) can be perceived as such and makes immigrants realise that they are not treated as equally and fairly as they were expecting. On the other hand, reports of discrimination might also evolve after disappointing situations in which determining discriminatory incidents can be subtle and less straightforward (e.g. not getting hired). In the latter case, perceptions of discrimination are the result of stalled attainment and serve the purpose of sense-making, being understood as a coping strategy to uphold positive self-esteem and a sense of agency (Schaeffer & Kas, 2023).

Reciprocal causality should mainly be an issue for the base effect of unmet migration expectations and less for the interaction term that investigates educational differences in unmet expectations. It is difficult to imagine a reason for highly educated immigrants' comparatively stronger perceptions of discrimination other than stronger reactions to unmet migration expectations. Empirical research suggests that more-educated immigrants are not more *exposed* to discrimination than less-educated immigrants are, but that they tend to frame ambiguous situations more in terms of discrimination (Diehl et al., 2021).

We investigated whether similar educational differences can be found in the effect of dissatisfaction with the decision to move to Switzerland on immigrants' perceived discrimination as is the case for destination attachment (**Table S11**). We used the adapted version of the dissatisfaction variable, in which we combined values 6 to 10 due to limited cell numbers (**Section 3.2**). This was necessary

because only 38 percent of immigrants in the analytical sample reported changes in perceived discrimination over time. The remaining 62 percent dropped out of the estimations because they did not report any changes in experienced discrimination. *Perceived discrimination* was captured by a dummy variable, indicating whether immigrants' experienced situations of prejudice or discrimination in Switzerland in the last 24 months (= 1) or not (= 0).

Table S11. Changes in immigrants' experienced discrimination and how these changes relate to increases in their dissatisfaction with the decision to move to Switzerland, by educational level

	Non-tertiary education		Tertiary education		Interaction	
	Coef.	SE	Coef.	SE	Coef.	SE
<i>Dissatisfaction with the decision to move (DDM)</i>						
DDM = 0	Ref.		Ref.		Ref.	
DDM = 1	1.29	(0.240)	1.37**	(0.157)	1.30	(0.258)
DDM = 2	1.30	(0.261)	1.59**	(0.216)	1.30	(0.288)
DDM = 3	1.45	(0.430)	1.65**	(0.279)	1.43	(0.435)
DDM = 4	2.15*	(0.828)	2.40***	(0.491)	2.15+	(0.950)
DDM = 5	2.54*	(0.959)	2.39**	(0.687)	2.49*	(0.896)
DDM = 6-10	1.94+	(0.696)	3.32***	(1.102)	1.91+	(0.647)
<i>DDM x tertiary education</i>						
DDM = 0					Ref.	
DDM = 1					1.05	(0.244)
DDM = 2					1.22	(0.333)
DDM = 3					1.14	(0.409)
DDM = 4					1.10	(0.501)
DDM = 5					0.95	(0.407)
DDM = 6-10					1.71	(0.731)
Age	1.14***	(0.035)	1.17***	(0.020)	1.16***	(0.016)
Pandemic year 2020	1.10	(0.115)	1.13*	(0.068)	1.12*	(0.055)
Local language comprehension	0.98	(0.111)	1.13	(0.099)	1.08	(0.068)
<i>n</i> (respondents)	481		1,386		1,867	
<i>n</i> (obs.)	1,298		4,043		5,341	

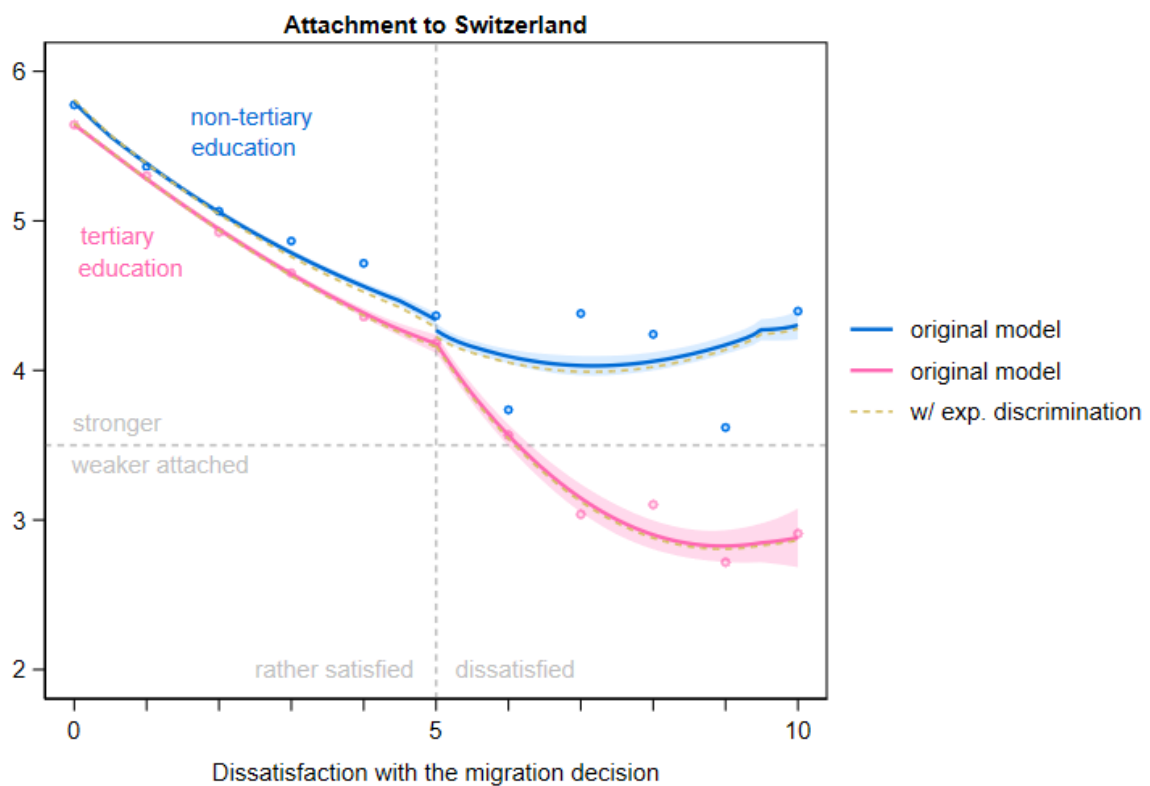
+  $p < 0.1$ , \*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$ .

Note. Odds ratios from separate FE logit regressions with bootstrapped ( $r = 100$ ) standard errors. Discrimination models additionally controlled for local language comprehension as a potential confounder. However, results did not change if local language comprehension was not considered.

Data. MMS, waves 1–4 (2016–2022), own calculations.

The mediation hypothesis posits that more perceptions of discrimination by highly educated immigrants are the reason for their comparably lower destination attachment (cf. Verkuyten, 2016). We found no indication of support for this hypothesis (**Figure S7**), although experiencing discrimination was negatively associated with immigrants' destination attachment ( $B_{\text{non-tertiary}} = -0.20$ ,  $SE = 0.057$ ,  $p = 0.000$ ;  $B_{\text{tertiary}} = -0.11$ ,  $SE = 0.030$ ,  $p = 0.000$ ).

Figure S7. Accounting for changes in experienced discrimination: Changes in immigrants' attachment to Switzerland if dissatisfaction with the decision to move to Switzerland increased, by educational level



*Note.* Predicted education-specific marginal values (the dots) are based on separate linear FE regressions with panel-robust standard errors. Trend lines are based on LOESS (bandwidth = 2). All models control for age and pandemic year (2020). Sample size with exp. discrimination:  $n_{\text{obs.}} = 13,885$ ,  $n_{\text{ind.}} = 5,240$ .  
*Data.* MMS, waves 1–4 (2016–2022), own calculations.

However, these findings have to be interpreted cautiously because of the modest number of survey time points and the manifold fallacies of causal mediation analysis with longitudinal data (Longhi & Nandi, 2015). Acknowledging this, we approached the mediation hypothesis from a different angle and investigated whether less- and more-educated immigrants showed different effects of dissatisfaction with the migration decision on destination attachment if they consistently reported experiences of discrimination (or not) throughout the panel. If the mediation hypothesis holds and experienced



discrimination is crucial to explain the observed educational differences in **Figures 2 and 3**, the base effects of dissatisfaction with the migration decision on destination attachment (i.e. for immigrants who do not report discrimination experiences) should be almost identical for less- and more-educated immigrants. In addition, we should find a substantial interaction between dissatisfaction with the migration decision and experienced discrimination among more-educated immigrants (but not among less-educated immigrants), indicating that those who reported experiences of discrimination throughout the panel showed stronger decreases in destination attachment with increasing dissatisfaction with the migration decision. Results from these analyses suggest that experienced discrimination matters to some extent (**Table S12**): less- and more-educated immigrants who never reported experiences of discrimination still showed differences in how their dissatisfaction affected their destination attachment (-0.20 vs. -0.24). However, there is a weak interaction effect for more-educated immigrants, which was absent for less-educated immigrants, indicating that more-educated immigrants who constantly reported discrimination experiences reacted even more strongly to increased dissatisfaction ( $B_{\Delta}$ : -0.07,  $p = 0.063$ ).

Table S12. Investigating the role of experienced discrimination: Changes in immigrants' attachment to Switzerland and how these changes relate to increases in their dissatisfaction with the decision to move to Switzerland, by educational level

	Non-tertiary education		Tertiary education	
	<i>Coef.</i>	<i>SE</i>	<i>Coef.</i>	<i>SE</i>
Dissatisfaction with the decision to move	-0.20***	(0.049)	-0.24***	(0.031)
DDM x experienced discrimination	-0.02	(0.061)	-0.07+	(0.034)
Age	0.05***	(0.014)	0.07***	(0.008)
Pandemic year 2020	0.03	(0.041)	0.02	(0.023)
<i>n</i> (respondents)	1,008		2,365	
<i>n</i> (obs.)	2,479		6,065	
adj. within- $R^2$	0.09		0.15	

+  $p < 0.1$ , \*\*\*  $p < 0.001$ .

*Note.* *B*-coefficients from separate linear FE regressions with panel-robust standard errors. Results based on a restricted sample with immigrants who either experienced or did not experience discrimination throughout the panel.

*Data.* MMS, waves 1–4 (2016–2022), own calculations.