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of Adverse Life Course Pathways:
the Effects on Health by Nativity**

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At the Intersection of Adverse Life Course Pathways: the Effects on Health by Nativity

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Abstract

Adverse life events are major causes of declining health and well-being, but the effects are not the same across subpopulations. We analyze how the intersection of nativity and two main adverse life events, job loss and divorce, affect individual health and well-being trajectories. Using data from the German Socio-Economic Panel (1984-2017), we apply descriptive techniques and individual fixed-effects regressions to analyze how job loss and divorce influence health. Our results support the hypothesis of the intersectional effects of disadvantage and adversities on health and well-being, with immigrants suffering more from adverse life events than natives in both the short and the long run. Compared to natives, immigrants have a health advantage at younger ages, which turns into a disadvantage at older ages. The observed health declines are particularly steep among immigrants who experienced adverse life events. These results help to explain the vanishing health advantage of immigrants by showing that they are exposed to a double disadvantage over the life course: i.e., immigrants are more likely than natives to suffer from adverse life events, and such events typically have a larger impact on the health of immigrants than of natives. Our findings are the first to provide evidence on the effects of different adverse life events intersecting with each other and with nativity. Moreover, our results highlight the importance of intersectional analyses in research on immigrant health.

Keywords: inequality, intersectionality, adverse life events, migration, health

Introduction

While immigrants are usually in good health when they arrive in the receiving country, they face challenges in preserving their initial health capital. Of the risk factors that contribute to health deterioration among immigrants, some of the largest are immigrants' social, economic, and labor market disadvantages relative to natives. These sources of disadvantage accumulate over the life course, including prior to and after migration, and they intersect with each other to exacerbate the effects of each on immigrants' health and well-being (Viruell-Fuentes et al. 2012). The disadvantages experienced by immigrants can be attributed not only to structural factors, such as their immigrant status and gender (Viruell-Fuentes et al. 2012) and their socioeconomic conditions, but also to their greater exposure to adverse life events (Leopold et al. 2017) relative to that of natives.

Job loss and divorce are recognized as major life events in an individual's life course that have clear and strong effects on health and well-being (Schaller and Stevens 2015; Paul et al. 2018; Sbarra 2015). However, most of the literature that has examined health and well-being as functions of structural disadvantage and/or adverse events considered them as distinct processes. While recent research has started to document the effects of job loss on immigrants' well-being (Leopold, Leopold, and Lechner 2017), this discussion has not been based on a comprehensive knowledge of the health of immigrants. Intersectionality provides a useful theoretical and empirical framework for conceptualizing the interactions among the social, economic, and labor market risk factors, and their impact on health (Bauer 2014). In particular, it provides theoretical support for studying the effects of the interplay of structural disadvantage and adverse events when examining immigrant health (Viruell-Fuentes et al. 2012).

The aim of this paper is to study the role of adverse life events in the immigrant-native health gap, while focusing on Germany as an important case study given its prominence as a receiving country in the European context. For our analysis, we use data from the German Socio-Economic Panel (G-SOEP), a representative survey of the general and the immigrant population in Germany. We focus on two adverse events, job loss and divorce, and on gender and nativity as structural risk factors. To the best of our knowledge, no previous study has tested the intersectional effects of multiple layers of structural disadvantage and adverse life events on immigrant health and well-being. As these patterns may differ greatly by gender, it is also important to analyze immigrant men and women separately.

Specifically, we study a) whether the relationship between age and nativity is associated with adverse events during the life course; b) whether the health effects of experiencing a job loss or a divorce differ between immigrants and natives, and whether experiencing multiple adverse events has stronger effects on health; and c) whether the short-term and the long-term effects of adverse events on health and well-being vary between immigrants and natives. Given that the processes that generate health inequalities among immigrants and natives are likely to differ by gender, we run all analyses for men and women separately.

Theoretical background

A growing body of literature increasingly recognizes that health disparities are driven by the complex interplay between structural factors and other sources of social disadvantage (Mandelbaum 2020; Bauer 2014). The intersection of multiple layers of disadvantage leads to widening disparities with age and over time as negative exposures accumulate during the life course (Bowleg 2012). Given that the lives of individuals are structured unequally (Graham 2007),

and that inequalities in health are driven by social inequity and are structured across socioeconomic factors (Bauer 2014), unitary approaches are not sufficient to explain the complexity of the social world, and, in particular, the complicated set of factors that underlie persistent health inequalities. Unitary approaches to the study of these inequalities assume that single categories operate in an additive manner, and are layered on top of one another (Bauer 2014). Intersectionality, by contrast, recognizes and seeks to explain how multiple social identities, such as race, nativity, socioeconomic status, and gender, intersect at the micro level to reflect interlocking systems of privilege and oppression at the societal level (Bowleg 2012; Atewologun and Mahalingam 2018). Hence, intersectionality examines inequalities simultaneously across multiple dimensions and across different social groups (Atewologun and Mahalingam 2018).

The major risk factors that accumulate and lead to individuals experiencing structural disadvantage over their life course are adverse life events that have clear and strong effects on health and well-being (Schaller and Stevens 2015). Among the events that can have large adverse effects on a person's health are job loss (Paul and Moser 2009; Leopold, Leopold, and Lechner 2017; Lucas et al. 2004) and divorce (Lucas 2005). These events are highly stressful both when they occur and over the individual's life course, although have different effects on the person's health and well-being over the short and the long term. The path linking these adverse life events to health and well-being is complex. Job loss is associated with long-term losses of earnings and psychosocial assets, as well as with social withdrawal, family disruption, lower job quality, and declines in psychological and physical well-being (Brand 2015). Thus, job loss affects an individual's health and well-being not only by causing a reduction in the person's earnings and in material conditions, but also through strong psychological effects that lower the person's general quality of life (Paul et al. 2018; Schaller and Stevens 2015).

Divorce is one of the most stressful events that can occur in an individual's life course (Bloom et al. 1978). A broad range of research has found that marital separation and divorce are linked to a high risk of experiencing a variety of poor health outcomes, including hospital-diagnosed infectious disease (Nielsen et al. 2014), cardiovascular morbidities (Alviar et al. 2014), and an increased risk of early death (Shor et al. 2012; Sbarra and Coan 2017). The mechanisms behind the link between divorce and poor health include a lack of social and financial resources, cognitive and affective experiences, and negative health behaviors. However, the literature on this association has pointed out that individual differences that predict marital dissolution also play an important role in predicting a person's health after divorce (Sbarra and Coan 2017). In terms of well-being, the literature has observed that after people divorce, they typically experience a pattern of adaptation. The evidence suggests that individuals habituate to divorce quite rapidly, as 5-10 years after a divorce, individuals report being more satisfied with their life than they were prior to the divorce (Clark et al. 2008).

While individuals have different responses to adverse events, these events can be particularly harmful to certain groups. Immigrants are known to be in a disadvantaged position in many spheres of personal and societal life in the receiving country. For example, immigrants tend to occupy less qualified positions in the job market, and they often have more stressful and physically demanding jobs, including the so-called "three D" jobs: i.e., jobs that are dirty, dangerous, and difficult (Orrenius and Zavodny 2013). It has been shown that in Germany, losing a job is more harmful to an immigrant's than to a native's well-being (Leopold, Leopold, and Lechner 2017). In addition to their higher likelihood of experiencing adverse events, individuals' structural characteristics, such as their nativity and sex, are strongly related to their health and well-being. In particular, people with the cultural capital associated with having a higher

educational level are more likely to be able to find a new job (Ali and Jalal 2018). However, individuals with higher education are less likely to remarry after divorce (Douglas et al. 1980). Education shapes people's work and economic conditions, social-psychological resources, and health lifestyles (Ross and Chia-Ling Wu 1995), and can thus have a moderating role on the relationship between adverse life events and health outcomes.

When studying the effects of adverse events on health and well-being, it is essential to consider the timing of these events and the duration of their effects. Previous research has shown that some individuals experience only transient effects on their well-being after major life events (either positive or negative), and return relatively quickly to having stable levels of well-being (Luhmann et al. 2012). It has also been reported that there is considerable variation in well-being across groups both in the period immediately after the occurrence of the event, and over the longer term (Luhmann et al. 2012).

Building on previous theoretical knowledge and empirical evidence, our study extends the existing knowledge on the effects of adverse life events on immigrant health in several important ways. First, we seek to understand how adverse life events intersect with each other to produce or exacerbate health disparities. Most previous research on adverse life events and their effects on immigrant outcomes analyzed only one adverse life event at a time, such as the effects of job loss on an immigrant's well-being (Leopold, Leopold, and Lechner 2017), while neglecting the intersectional effects of multiple layers of social disadvantage, and the effects of the accumulation of disadvantage in different social areas. Leopold and Lechner (2017) studied well-being trajectories, and found a steeper deterioration in well-being among immigrants than among natives. We use a similar approach to study health, as we compare the well-being trajectories of immigrants and natives. However, we extend this approach to provide a comprehensive picture of the effects

on health of the intersectional accumulation of disadvantage (adversities) in different social spheres by nativity and gender, and by the adversities individuals experienced. A second novelty of our study is that we consider individuals' health trajectories before and after these events. Focusing on German natives and immigrants aged 18-64, we examine the main effects on health of job loss and divorce, and how they intersect with nativity. We also look at how experiencing or not experiencing adverse events affects individuals' health trajectories over the life course, and the related age trajectory crossover. Finally, we estimate individuals' health status at the time before and after the events, with the aim of analyzing both the short-term and the long-term effects of experiencing multiple adversities based on the individuals' health status before the adversity/adversities occurred.

Our hypotheses are:

H1: The immigrant-native health gap across ages is exacerbated by adverse events, particularly when more than one event occurs during the life course.

H2: The effects of job loss differ between immigrants and natives, such that immigrants suffer more from adverse events, and experiencing multiple adverse events has a stronger effect on health.

H3: The short-term and the long-term effects of adverse events on health differ between immigrants and natives, such that immigrants face more long-term negative health effects than natives after experiencing adverse events.

Data and methods

We use data from the 1984-2017 waves of the German Socio-Economic Panel (G-SOEP). The SOEP study is a representative longitudinal study of private households residing in Germany.

Starting in 1984, the data provide information on all surveyed household members. The survey participants include Germans living in former West and East Germany, foreigners, and recent immigrants to Germany. The topics covered by the survey include household composition, occupational biographies, employment, earnings, and health and satisfaction indicators. Immigrants were re-sampled to account for the changes that took place in German society in 1994/95, 2013, 2015, and 2016. New samples were added in 1998, 2000, 2002, 2006, 2009, 2011, and 2012.

Key measures

Our key outcomes are self-rated health (SRH, on a scale from 1 to 5), satisfaction with own health (SOH, on a scale from 0 to 10) and well-being (WB, on a scale from 0 to 10). Information on self-rated health was collected by asking the question: “How would you describe your current health?” The response options were “very good,” “good,” “satisfactory,” “poor,” and “bad.” Information on satisfaction with own health was collected by asking the question: “How satisfied are you today with the following areas of your life?; Health? Please answer on a scale from 0 to 10, where 0 means completely dissatisfied and 10 means completely satisfied.” Information on well-being was collected by asking the question: “How satisfied are you with your life, all things considered? Please answer on a scale from 0 to 10, where 0 means completely dissatisfied and 10 means completely satisfied.” In this working paper, we provide results for self-rated health.

Immigration status is defined by place of birth: individuals born outside of Germany are classified as immigrants, while individuals born in Germany are classified as natives (the reference category in all the analyses). We focus on two adverse events: job loss and divorce. We measure job loss as the individual change from employment to registered unemployment between waves, and divorce as the individual change from being married to being divorced between waves. In both

cases, we focus on the first episode of the event occurring during the observation window. We measure the first change observed, meaning that the information from the first wave is excluded from the analyses. When analyzing the two adverse events simultaneously, we first focus on job loss as the main event, while considering whether individuals also experienced divorce prior to losing their job over their life course. Second, in separate models, we focus on divorce as the main event in a context of having previously experienced job loss.

Empirical approach

We use ordinary least squares models to describe the age trajectories of health, and individual fixed-effects (FE) linear models to estimate the within-individual response change in health following the adverse life events of job loss and divorce. By estimating the effect of a within-individual change, fixed-effects models implicitly control for all possible unobserved confounding characteristics, as long as those characteristics do not change over time (Allison 2009). As such, fixed-effects models enable us to interpret the results in a causal way. We stratify the sample by sex, and we focus our analyses on the young adult population (ages 18-64), as our aim is to study individuals who are at risk of being married (ages 18+) and who are of working ages, and are therefore likely to still be active in the job market (under age 65). Limiting our analyses to people under age 65 implicitly provides the additional benefit of minimizing the so-called “salmon bias.” This bias can occur because some immigrants return to their country of origin during retirement, which contributes to the overestimation of the share of the immigrant population in good health relative to that of the native population (Turra and Elo 2008).

Our analytical strategy is as follows:

Set of hypotheses 1 - We estimate the differences in the health and well-being trajectories of immigrants and natives across ages with OLS, on a sample stratified by having experienced or not having experienced the events of job loss and divorce during the observation period, and on the three outcomes. To do so, we estimate a model that includes age, nativity (native vs. foreign-born), and an interaction between nativity and age, including quadratic and cubic terms of age. This allows us to test the hypothesis of the intersectional relationships between nativity and adverse events during the life course. We hypothesize that individuals who have experienced such adverse events and have the social disadvantage of being foreign-born will experience a steeper and faster decline in health by age.

$$\text{Eq. 1: } Y_{it} = \alpha + \sum_{a=1}^3 \text{age}_t^a \cdot \beta_a + \gamma \cdot \text{nativity}_i + \sum_{a=1}^3 \text{age}_t^a \cdot \delta_a \cdot \text{nativity}_i + \varepsilon_{it},$$

where Y_{it} is the outcome of person i at time t ; age_t^a , $a = 1, 2, 3$ are linear, quadratic, and cubic terms of age; age and event are also interacted with nativity; and ε_{it} denotes the random error of person i at time t .

Set of hypotheses 2 – We estimate the individual change in health and well-being following the individual change in employment status (employed to unemployed) and in marital status (married to divorced), by nativity, with FE models. To do so, we test a model with linear, quadratic, and cubic terms of age and lags since the adverse event, interacted with nativity. We test a model in which the adverse event is job loss, and a separate model in which the adverse event is divorce. Our aim is to test the hypothesis that the effects of job

loss and divorce on the health and well-being of immigrants and natives differ over the short and the long run.

$$\text{Eq. 2: } Y_{it} = \alpha_i + \sum_{a=1}^3 \text{age}_t^a \cdot \beta_a + \sum_{l=-5}^5 \text{lag}_{it}^l \cdot \gamma_l + \sum_{l=-5}^5 \text{lag}_{it}^l \cdot \delta_l \cdot \text{nativity}_i + \varepsilon_{it},$$

where Y_{it} is the output of person i at time t ; age_t^a are linear, quadratic, and cubic terms of age; α_i is the individual fixed effect; Lag_{it}^l , $l = -5, \dots, 5$, are dummy factors of lags to indicate when the event occurred in year intervals $[-10, -5]$, $(-5, -4]$, $(-4, -3]$, $(-3, -2]$, $(-2, -1]$, $(-1, 0]$, $(0, 1]$, $[1, 2]$, $[2, 3]$, $[3, 4]$, $[4, 5]$, $[5, 15]$, where 0 is the time of the event and $[-10, -5]$ is used as the reference; and the lags are interacted with nativity.

Set of hypotheses 3 – We add another term to the interaction tested in the previous step that includes the interaction between the lag since job loss, nativity, and divorce that occurred prior to job loss in models that test job loss as the main adverse event; and the interaction between the lag since divorce, nativity, and job loss in a model that tests divorce as the main adverse event. Our aim is to test the hypothesis that the intersection between adverse events (job loss and divorce) and multiple strata of social disadvantage (being foreign-born, unemployed, divorced) act as accelerators of health deterioration.

$$\text{Eq. 3: } Y_{it} = \alpha_i + \sum_{a=1}^3 \text{age}_t^a \cdot \beta_a + \sum_{l=-5}^5 \text{lag}_{it}^l \cdot \gamma_l + \sum_{l=-5}^5 \text{lag}_{it}^l \cdot \delta_l \cdot \text{nativity}_i \cdot \text{covariate} + \varepsilon_{it},$$

the terms of Eq. 3 are the same as Eq. 2, except for the additional interaction term.

Results

Table 1 summarizes the descriptive characteristics of the sample used to study job loss as the main adverse event, while Table 2 describes the sample used to study divorce as the main event. As expected, we find that immigrants were, on average, younger than natives, irrespective of sex. The proportion of individuals who lost their job during the observation period, calculated as the first observed event, was higher among immigrants than among natives, at 22.7% (22.9%) among native men (women) and at 36.1% (33.0%) among immigrant men (women) (see Table 1).

Table 1 Descriptive characteristics of the sample, main event job loss, German SOEP, waves 1984-2017

	Person-years, based on full sample			
	Natives		Immigrants	
	Men, N = 275,799	Women, N = 308,121	Men, N = 67,227	Women, N = 67,333
Age	46.3 (17.8)	47.0 (18.1)	42.3 (15.1)	42.4 (14.9)
Job loss experience	62,568 (22.7%)	70,561 (22.9%)	24,249 (36.1%)	22,253 (33.0%)
Marital status				
Married	171,240 (62.5%)	175,389 (57.4%)	49,265 (74.0%)	49,512 (74.6%)
Unmarried	78,751 (28.8%)	73,798 (24.2%)	14,301 (21.5%)	9,014 (13.6%)
Divorced	16,116 (5.9%)	27,060 (8.9%)	2,088 (3.1%)	4,264 (6.4%)
Widowed	7,791 (2.8%)	29,054 (9.5%)	886 (1.3%)	3,579 (5.4%)
Self-rated health	3.5 (0.9)	3.4 (1.0)	3.6 (1.1)	3.4 (1.0)
Well-being	7.1 (1.8)	7.1 (1.8)	7.1 (1.9)	7.2 (1.9)
Satisfaction with own health	6.8 (2.2)	6.6 (2.3)	7.1 (2.4)	6.8 (2.4)
	Subjects, based only on those who experienced the event of job loss			
	Men, N = 5,070	Women, N = 5,484	Men, N = 3,688	Women, N = 3,138
Age	38.2 (14.7)	37.4 (13.2)	39.1 (12.6)	38.2 (11.5)
Marital status				
Married	2,223 (44.3%)	2,659 (49.1%)	2,591 (71.4%)	2,213 (72.1%)
Unmarried	2,341 (46.6%)	1,914 (35.3%)	908 (25.0%)	483 (15.7%)
Divorced	405 (8.1%)	723 (13.3%)	112 (3.1%)	250 (8.1%)
Widowed	51 (1.0%)	121 (2.2%)	17 (0.5%)	125 (4.1%)
Self-rated health	3.4 (1.0)	3.3 (1.1)	3.7 (1.2)	3.4 (1.1)
Well-being	5.9 (2.2)	6.2 (2.1)	6.6 (2.3)	6.9 (2.1)
Satisfaction with own health	6.6 (2.5)	6.5 (2.5)	7.1 (2.7)	6.7 (2.6)

We also find, however, that immigrants were less likely to experience divorce than natives, irrespective of sex: 11.2% of native men and 16.4% of native women divorced, but just 5.6% immigrant men and 11.0% and immigrant women divorced (see Table 2). Immigrants were also more likely than natives to be married and employed.

Table 2. Descriptive characteristics of the sample, main event divorce, German SOEP, waves 1984-2017

Person-years, based on full sample				
	Natives		Immigrants	
	Men, N = 259,647	Women, N = 262,579	Men, N = 64,856	Women, N = 60,773
Age	45.2 (17.2)	43.5 (16.3)	41.8 (14.7)	40.6 (13.7)
Divorce experience	29,159 (11.2%)	43,126 (16.4%)	3,635 (5.6%)	6,664 (11.0%)
Employment status				
Unemployed	31,795 (12.2%)	53,550 (20.4%)	16,549 (25.5%)	23,639 (38.9%)
Retired	33,167 (12.8%)	27,837 (10.6%)	3,962 (6.1%)	2,886 (4.8%)
Other	14,243 (5.5%)	22,865 (8.7%)	2,528 (3.9%)	5,618 (9.2%)
Employed	180,442 (69.5%)	158,324 (60.3%)	41,781 (64.5%)	28,601 (47.1%)
Self-rated health	3.5 (0.9)	3.4 (0.9)	3.6 (1.1)	3.5 (1.0)
Well-being	7.1 (1.7)	7.2 (1.8)	7.2 (1.9)	7.2 (1.9)
Satisfaction with own health	6.8 (2.2)	6.8 (2.2)	7.1 (2.4)	6.9 (2.3)
Subjects, based only on those who experienced the event of divorce				
	Men, N = 2,779	Women, N = 4,195	Men, N = 517	Women, N = 982
Age	47.7 (11.3)	45.3 (11.8)	44.6 (10.9)	42.4 (11.2)
Employment status				
Unemployed	470 (16.9%)	882 (21.0%)	168 (32.5%)	359 (36.6%)
Retired	144 (5.2%)	254 (6.1%)	16 (3.1%)	30 (3.1%)
Other	20 (0.7%)	144 (3.4%)	4 (0.8%)	44 (4.5%)
Employed	2,145 (77.2%)	2,915 (69.5%)	329 (63.6%)	549 (55.9%)
Self-rated health	3.4 (1.0)	3.4 (1.0)	3.5 (1.1)	3.4 (1.1)
Well-being	6.9 (2.0)	6.8 (2.0)	6.5 (2.2)	6.8 (2.1)
Satisfaction with own health	6.8 (2.3)	6.7 (2.4)	6.8 (2.6)	6.6 (2.6)

Here we present the results based on the outcome of self-rated health.

Age trajectories of self-rated health and sex differences

Figure 1 shows the self-rated health trajectories by age for individuals who never experienced job loss during the observation period, and for individuals who experienced job loss at least once, for men and women separately. Immigrant men who did not experience job loss (panel a) had a health advantage relative to natives at younger ages. However, the two trajectories crossed over at around age 50, with immigrants developing a health disadvantage at older ages (60+). Among men who experienced job loss (panel b), we observe the same pattern of a health advantage turning into a disadvantage with age, but also a much steeper decline in the trajectories of both immigrants and natives, and, most importantly, a wider immigrant-native health gap.

Women had lower overall levels of self-rated health than men across all ages and irrespective of nativity. Similar to men, women who did not experience job loss (panel c) had a slower overall decline in health than women who experienced job loss (panel d). The age at which the two trajectories crossed over was much lower among women (~35 in panel c, ~40 in panel d) than among men, irrespective of their job loss experience. It is also worth noting that the immigrant-native gap at older ages was wider among women than among men, irrespective of their job loss experience.

Figure 1 Age trajectories of self-rated health, with and without the adverse event of job loss, by nativity and sex. OLS regressions. Panel a: men who never experienced job loss during the observation period; panel b: men who experienced job loss at least once; panel c: women who never experienced job loss during the observation period; panel d: women who experienced job loss at least once.

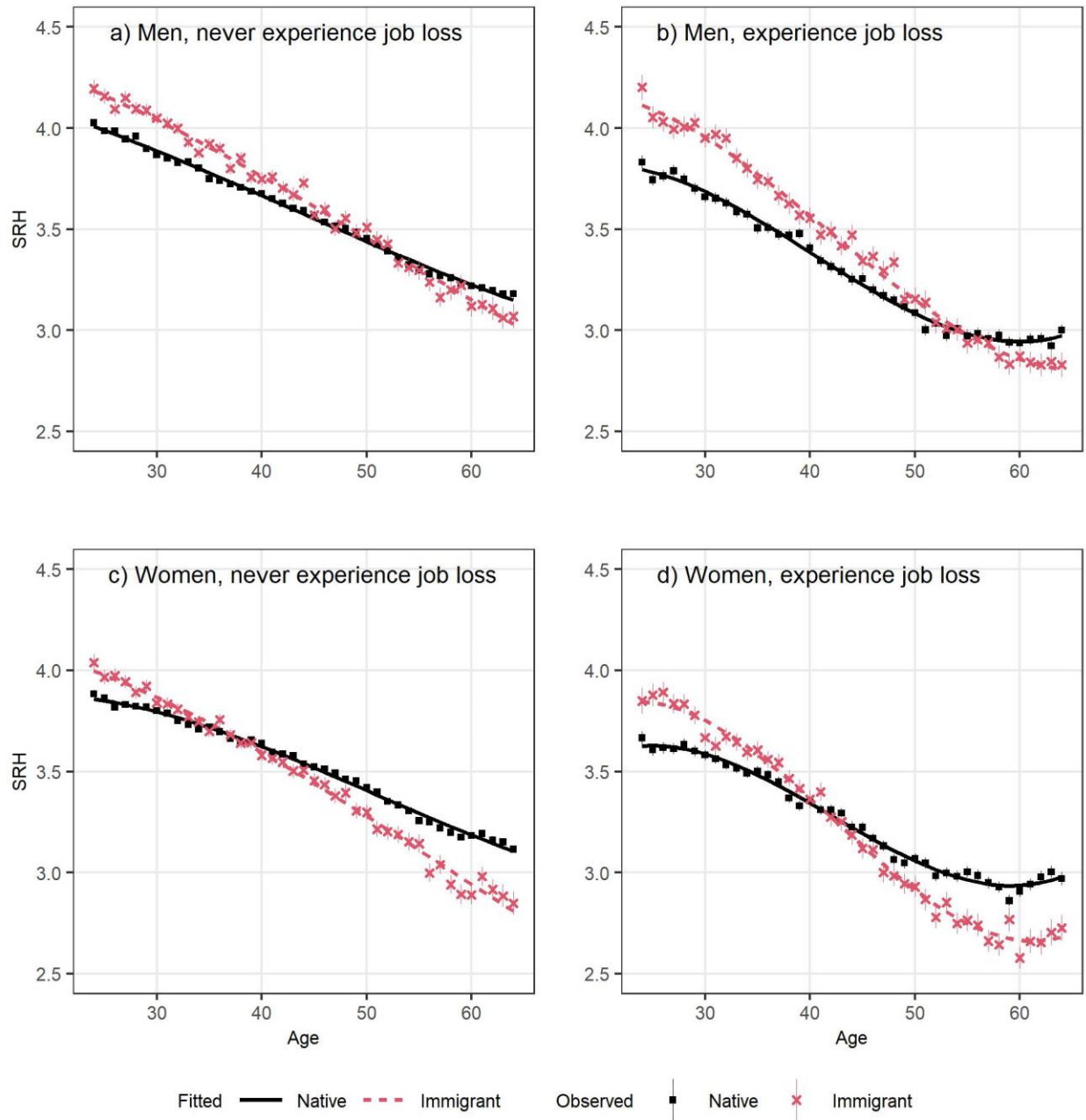
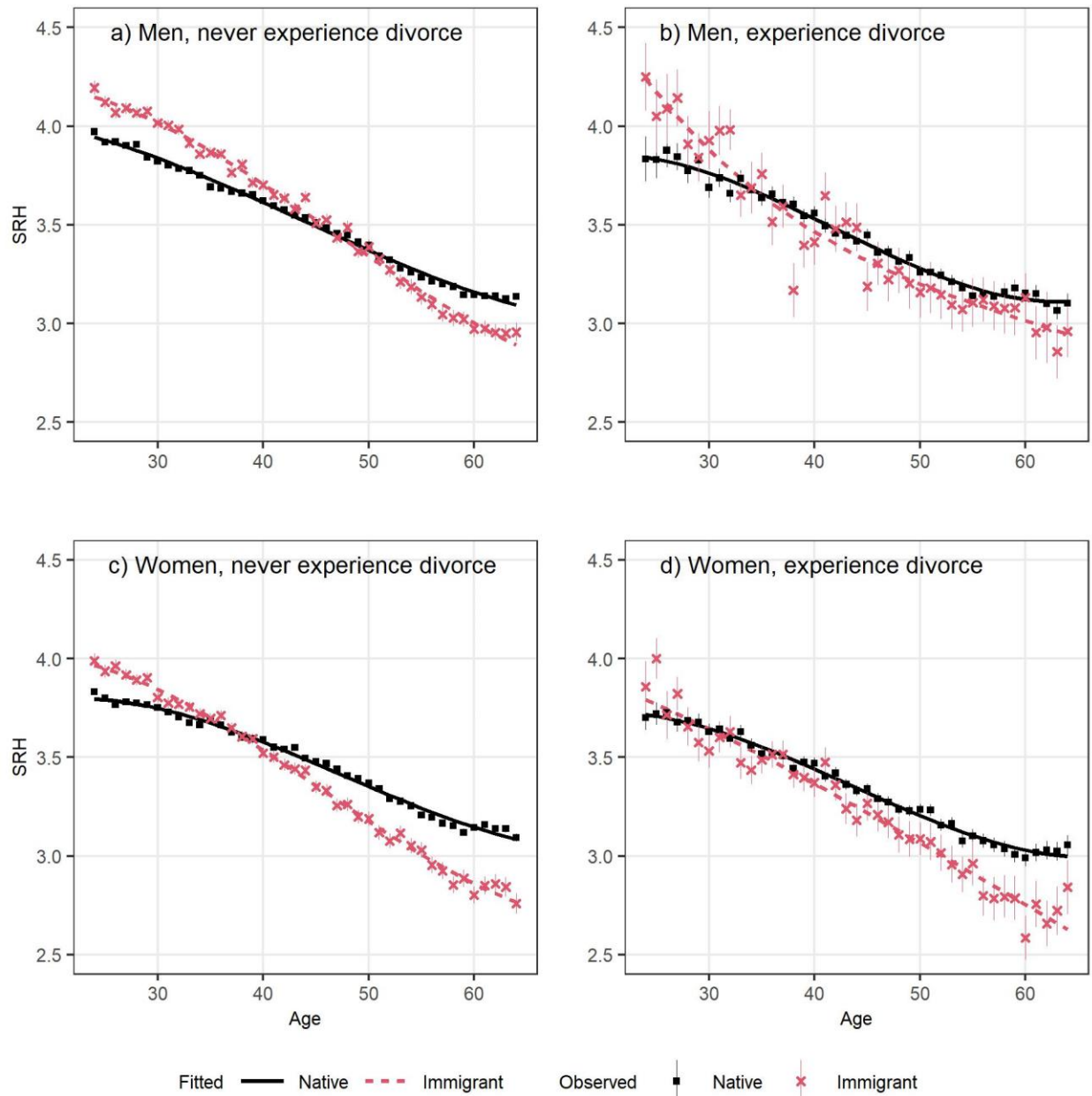


Figure 2 shows the self-rated health trajectories by age for individuals who never experienced divorce during the observation period (left-hand side panels), and for individuals who experienced

divorce at least once during the observation period (right-hand side panels), by sex. In contrast to our findings for job loss as the main event, we do not observe large differences in the steepness of the health trajectories by age between men who never experienced divorce (panel a) and men who experienced divorce (panel b).

Figure 2 Age trajectories of self-rated health, with and without the adverse event of divorce, by nativity and sex. OLS regressions

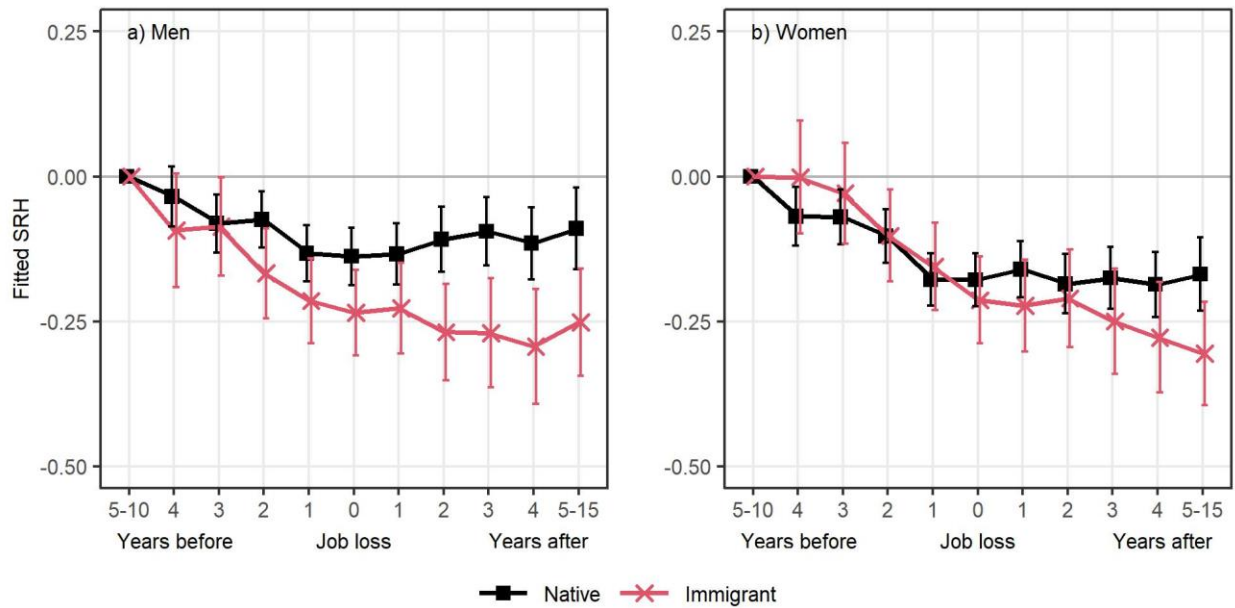


However, we do observe higher levels of self-rated health at all ages among women who did not experience divorce (panel c) than among women who did (panel d). At younger ages, immigrant women who did not experience divorce had a health advantage, while women who did experience divorce had similar health levels irrespective of nativity. At older ages, the immigrant-native health gap was similar irrespective of the individuals' divorce experience.

Short- and long-term self-rated health trajectories after job loss

Figure 3 shows the short- and long-term self-rated health trajectories by time prior to and time after job loss. The event occurs between time 1 and time 0.

Figure 3 Self-rated health trajectory before and after job loss by nativity and sex. Panel a: men, N (person-years) = 343,026, panel b: women, N = 375,454. Fixed-effects linear regressions

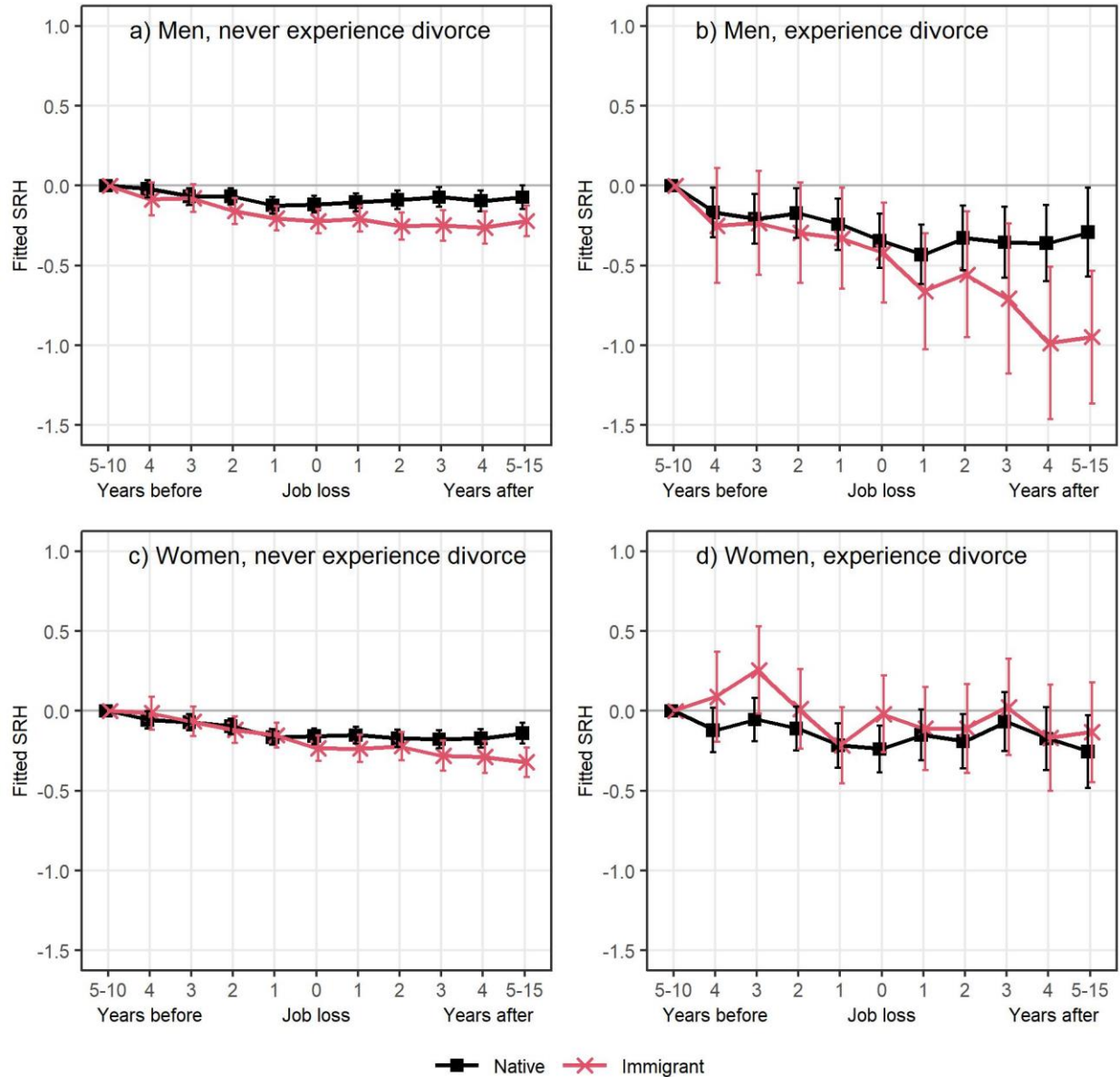


In panel a, we observe a declining health trajectory prior to job loss for both immigrant and native men. The trajectories started with a similar trend irrespective of nativity, but began diverging three years prior to the event. After the event, the trajectory of the immigrants kept declining, while that

of the natives started to recuperate. The immigrant and native trajectories kept diverging, with natives returning to almost pre-job loss health levels, and immigrants experiencing further health declines up to four years after the event of job loss. Four years after the event, immigrants started recuperating, but did not reach pre-job loss health levels. Among women, the self-rated health of immigrants after the event of job loss was more similar to that of natives. Thus, unlike in the case of men, we do not observe wide gaps among women. However, we still see a steeper decline with no recuperation more than five years after job loss among immigrant women.

Figure 4 shows the short- and long-term self-rated health trajectories by time prior to and time after job loss for individuals who never experienced divorce prior to losing their job, and for those who experienced divorce prior to losing their job, by sex. For men who did not experience divorce prior to losing their job (panel a), and who thus did not cumulate these two adverse events during their life course, we observe a pattern similar to that observed for job loss only (Figure 2, panel a). For men who divorced prior to losing their job, and who thus cumulated two adverse events during the observation period (panel b), we see a much faster declining trend for both populations. We also observe an immigrant-native gap, with health levels declining faster among immigrants than among natives. In this case, neither population reached their pre-job loss health levels. Among women (panels c and d), we observe only a small immigrant-native gap for those who did not experience divorce prior to losing their job (panel c), and find no notable differences between immigrants and natives for those who experienced divorce prior to losing their job (panel d).

Figure 4 Self-rated health trajectory before and after job loss, for individuals who did and did not experience divorce prior to job loss, by nativity and sex. Fixed-effects linear regressions. Panel a: men who never experienced divorce prior to job loss during the observation period; panel b: men who experienced divorce at least once prior to job loss; panel c: women who never experienced divorce prior to job loss during the observation period; panel d: women who experienced divorce at least once prior to job loss.



Short- and long-term self-rated health trajectories after divorce

Figure 5 shows the short- and long-term self-rated health trajectories by time prior to and time after divorce for men (panel a) and women (panel b). The event occurred between time 1 and time

0. For men (panel a), we do not observe any notable drop in self-rated health after divorce, and only an overall gap between immigrant and native men, with immigrants having lower levels of health. It appears, however, that the self-rated health of native men increased in the years after divorce to higher levels than those prior to divorce. For women (panel b), we observe a similar decrease in health after the event of divorce among immigrants and natives.

Figure 5 Self-rated health trajectory before and after divorce by nativity and sex. Panel a: men, N (person-years)= 324,503, panel b: women, N = 323,352. Fixed-effects linear regressions

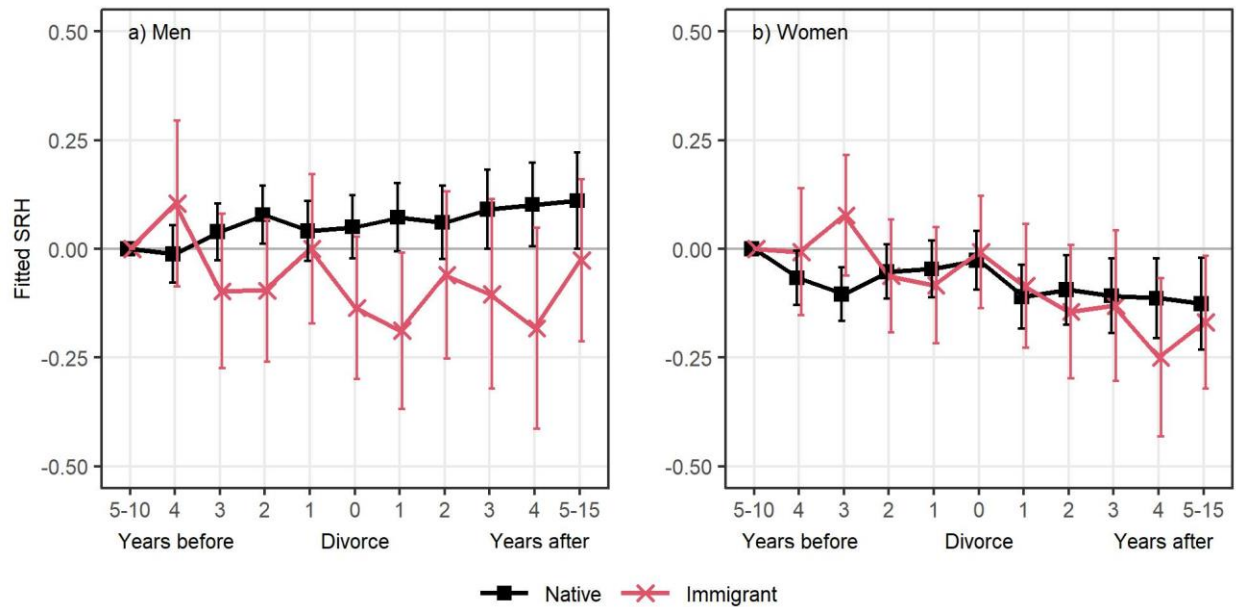
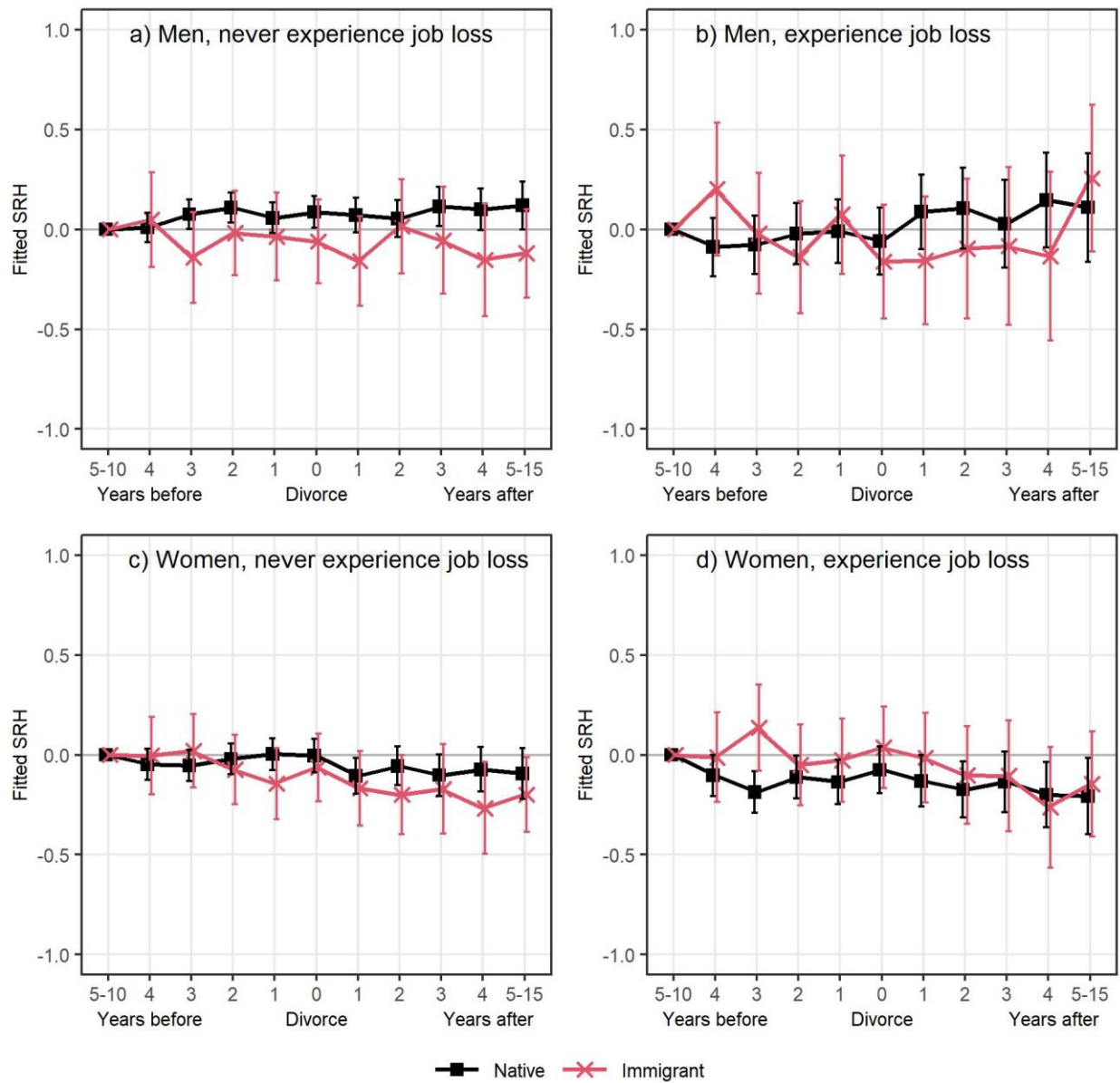


Figure 6 shows the short- and long-term self-rated health trajectories by time prior to and time after divorce for individuals who never experienced job loss, and for those who experienced job loss prior to divorcing their partner, by sex. For men who did not lose their job prior to divorce (panel a), we observe a pattern similar to that for divorce only: i.e., an increasing trend after divorce among native men, and a decreasing trend after divorce among immigrant men (Figure 5, panel a). For men who lost their job prior to divorce (panel b), the estimates were less stable, and the pattern was similar but with a slightly wider immigrant-native gap. Among women (panels c and d), we

do not observe notable differences between immigrants and natives, irrespective of their job loss experience prior to divorce (panels c and d). Instead, we see a more steeply declining overall trend for both immigrant and native women who experienced both adverse events (panel d).

Figure 6 Self-rated health trajectory before and after divorce for individuals who did and did not experience job loss prior to divorce, by nativity and sex. Fixed-effects linear regressions. Panel a: men who never experienced job loss prior to divorce during the observation period; panel b: men who experienced job loss at least once prior to divorce; panel c: women who never experienced job loss prior to divorce during the observation period; panel d: women who experienced job loss at least once prior to divorce.



Robustness checks

We ran additional analyses to ensure the robustness of our results. First, we ran our analyses while also considering information on the two adverse events in the first wave, including being unemployed and being divorced in the first wave as an event. We found patterns that were very similar to those included here, but with stronger magnitudes of the associations. Second, we compared our main results with analyses conducted on an additional health outcome, satisfaction with own health rated on a scale from 0 to 10, and on well-being. The results for satisfaction with own health were qualitatively comparable to those for self-rated health. When we compared our results for well-being with those from the previous literature (Leopold, Leopold, and Lechner 2017), the expected patterns were found.

Limitations

This study is not without limitations. First, due to sample size issues, we could not account for the immigrants' country of birth. It is possible that some of the observed patterns would have been different across different groups of immigrants depending on their country of birth. The fixed-effects models we used partly accounted for that heterogeneity, given that country of birth is a time-invariant characteristic. However, there might still be compositional differences in each group of immigrants that could have been considered if the sample size had allowed us to run a stratified analysis. Moreover, there may be additional time-varying explanatory factors that could have been very relevant, but that were not accounted for in the analyses. Second, by analyzing individuals only up to age 64, we implicitly limited the bias caused by return migration at retirement ages, but we could not fully account for the potential bias created by outmigration in general. Third, the definition of immigrant we used was based on country of birth, even though

individuals who were born abroad but who had lived in Germany since they were very young (second-generation immigrants) may have been more similar to natives in terms of their health outcomes. Fourth, individuals entered the observation period when they started participating in the survey, and the adverse events were calculated as the first observed change in employment and in marital status between waves. Thus, we considered only adverse events that occurred after an individual starting participating in the survey, and not all such events that occurred over the individual's whole life course. However, we believe that this condition produced a downward bias, and that the patterns we observed would have been further exacerbated if more adverse events during the life course had been included in the analyses.

Discussion

In a context in which immigration is a structural phenomenon with an increasing trend, trajectories of health with age and over time may be important drivers of integration. Moreover, studying life course trajectories and the effects of adverse events can help us better understand the mechanisms behind the vanishing health advantage of immigrants, and their health deterioration. Immigrants are exposed to a double disadvantage over the life course: they are more likely than natives to suffer from certain adverse life events (e.g., job loss), and the impact of such events on their health tends to be larger than it is among natives. Our findings are the first to provide evidence on the effects of different adverse life events intersecting with each other and with structural sources of disadvantage, such as nativity and gender. Thus, our results highlight the importance of intersectional analyses in research on immigrant health.

In this article, we expanded on the work done by others on the association between job loss and well-being (Leopold, Leopold, and Lechner 2017), and we provided several innovations that

can help to explain why experiencing adverse life events contributes to the immigrant-native health gap, and why the immigrant health advantage disappears with age and over time. We estimated the overall health trajectories surrounding two important adverse life events, the loss of employment and the loss of a spouse by divorce, for immigrants and natives.

We found evidence supporting all of our hypotheses. First, we showed that the immigrants in our sample were aging in poorer health than natives, and thus extended the literature that reported a faster decline among immigrants in satisfaction with own health (Ronellenfitsch and Razum, 2004) and in self-rated health (Gubernskaya, Z. 2015). We also found that the overall declining health and well-being trajectories by age differed greatly between immigrants and natives, and with similar patterns observed across different outcomes. This suggests that, despite having better health when very young, immigrants were aging in poorer health than natives.

Second, we documented that the nativity differential in the declining health and well-being trajectories by age was exacerbated when an adverse life event occurred over the life course. This is a novel contribution to the literature on the mechanisms that produce differences in declining health with age. We provided evidence that having such detrimental experiences could lead to an acceleration of the worsening of health by age among individuals who were in a disadvantaged position in society, as immigrants tend to be.

Third, we examined the short- and long-term effects of experiencing adverse life events by nativity and gender, highlighting that job loss seemed to be more detrimental to the health of immigrants than to that of natives. We found that the economic and social shocks of job loss differentially impacted the lives of natives and immigrants, and that it was not only the process of aging in good/poor health that was influenced by such events, but also the trajectory of health by the time since the events. It thus appears that the accumulation of psychosocial and economic

disadvantages during the life course was reflected not only in differences in the likelihood of aging in poor health, but also in the chances of experiencing short- and short-term changes in health.

Fourth, we showed that these mechanisms differed between men and women. We found that the gap in the declining health trajectories by age was larger among women than among men, but with the effects of job loss on health being much stronger for immigrant men (compared to native men) than for immigrant women (compared to native women). We did not find a similar pattern for the adverse event of divorce. The literature has extensively shown that women age in poorer health than men, despite surviving longer (Crimmins et al. 2011). We added to that literature by showing that the process of aging in poorer health was observed not only when comparing women and men, but also when nativity was included in the equation.

In addition, we found that immigrant women were aging in poorer health than both men and native women. This result supports our hypothesis 1, and thus provides evidence of an intersectionality effect of gender and nativity on the process of declining health by age. One explanation for this pattern is that immigrant women are in a particularly disadvantaged position relative to that of both immigrant men and native women (Donato et al. 2014). It is, for example, known that immigrant women are, on average, poorer, overrepresented in the informal job market (Donato et al. 2014; De Jong and Madamba 2001), less educated, and more subject to the detrimental effects of traditional gender roles and social norms (Kanas and Müller 2021; Khoudja and Fleischmann 2017). Being more exposed to the detrimental effects of traditional gender roles may imply, for instance, that immigrant women are more likely than men or native women to face challenges in balancing family care (children and parents) with work.

Given that our results suggest that multiple layers of disadvantage and adversities experienced over the life course interact with each other to exacerbate the health gaps between

immigrants and natives, the next question that arises is what steps could be taken at the societal level to reduce these gaps. Our findings suggest that immigrants who lost their job in the receiving country, and especially if they had previously experienced marriage dissolution, constituted a specific risk group who faced worse consequences on a variety of health dimensions. This could mean that the accumulation and the intersection of various forms of socioeconomic disadvantage during the life course could have particularly harmful effects on the health and well-being of individuals who are living in a foreign country, and who thus have, on average, smaller extended social and family networks, and are at a higher risk of experiencing discrimination and racialization. In addition to these aspects related to the societal sphere, compared to natives, immigrants are also more likely to have low wages, to be employed in less prestigious positions, and to be poor (Orrenius and Zavodny 2013). Experiencing job loss, divorce, or both events during the life course can have further detrimental effects on the health of immigrants.

Improving the health outcomes of immigrants, and especially of those who are at higher risk of living in conditions of social disadvantage, and who experience multiple adversities in the receiving country, is an important policy goal. The working-age population we studied will soon enter ages at which the risk of health frailties is higher, and the intersectional effects of adversities and the structural health disadvantages we observed in this population are likely to be exacerbated by aging. If receiving countries do not design and implement specific policies aimed at addressing the social and economic disadvantages of immigrants, their poor health could become a public health issue.

Tables

Table 3. The association of the intersection of age and nativity with self-rated health. Ordinary least squares (OLS) regressions by sex, on the total sample (a), on a restricted sample of individuals who did not experience job loss during the observation period (b), and on a restricted sample of individuals who experienced job loss at least once (c).

	Self-rated health					
	Men			Women		
	Total population (a)	Individuals without job loss experience (b)	Individuals with job loss experience (c)	Total population (a)	Individuals without job loss experience (b)	Individuals with job loss experience (c)
Age	-0.025*** (0.0005)	-0.023*** (0.001)	-0.031*** (0.001)	-0.024*** (0.0005)	-0.022*** (0.001)	-0.029*** (0.001)
Age ²	0.006*** (0.002)	0.002 (0.002)	0.040*** (0.004)	-0.002 (0.002)	-0.012*** (0.002)	0.030*** (0.004)
Age ³	0.010*** (0.002)	0.004* (0.002)	0.028*** (0.004)	0.014*** (0.002)	0.007*** (0.002)	0.034*** (0.003)
Immigrant (vs native)	0.030*** (0.007)	0.059*** (0.009)	0.128*** (0.013)	-0.106*** (0.007)	-0.076*** (0.009)	-0.060*** (0.013)
Age*Immigrant	-0.012*** (0.001)	-0.008*** (0.001)	-0.011*** (0.002)	-0.014*** (0.001)	-0.010*** (0.001)	-0.017*** (0.002)
Age ² *Immigrant	-0.005 (0.005)	-0.009 (0.006)	-0.016** (0.008)	0.004 (0.005)	-0.004 (0.006)	0.004 (0.008)
Age ³ *Immigrant	0.004 (0.004)	0.0004 (0.005)	-0.003 (0.007)	0.005 (0.004)	-0.003 (0.005)	0.010 (0.007)
Constant	3.477*** (0.003)	3.553*** (0.003)	3.225*** (0.007)	3.430*** (0.003)	3.518*** (0.003)	3.193*** (0.006)
Observations	197,861	141,631	56,230	221,914	156,359	65,555
R ²	0.092	0.086	0.111	0.073	0.07	0.087
Adjusted R ²	0.092	0.086	0.111	0.073	0.07	0.086
F Statistic	2,872.787*** (df = 7; 197853)	1,906.653*** (df = 7; 141623)	1,005.333*** (df = 7; 56222)	2,497.368*** (df = 7; 221906)	1,679.631*** (df = 7; 156351)	887.356*** (df = 7; 65547)
<i>Note:</i>						* ** *** p<0.01

Table 4. Self-rated health trajectory before and after job loss. Fixed-effects (FE) regressions by sex, on the total sample (a), on a restricted sample of individuals who did not experience divorce prior to job loss during the observation period (b), on a restricted sample of individuals who experienced divorce prior to job loss (c).

	Self-rated health					
	Men			Women		
	Total population (a)	Individuals without divorce experience (b)	Individuals with divorce experience (c)	Total population (a)	Individuals without divorce experience (b)	Individuals with divorce experience (c)
Age	-0.038*** (0.002)	-0.039*** (0.002)	-0.034*** (0.009)	-0.027*** (0.002)	-0.026*** (0.002)	-0.037*** (0.008)
Age ²	0.012*** (0.005)	0.014*** (0.005)	-0.043** (0.020)	0.013*** (0.005)	0.013*** (0.005)	0.032** (0.016)
Age ³	0.024*** (0.004)	0.023*** (0.004)	0.061*** (0.016)	0.021*** (0.003)	0.018*** (0.004)	0.031** (0.013)
Time before and after event (ref 5-10 years before)						
4 years before	-0.035 (0.027)	-0.019 (0.028)	-0.168** (0.080)	-0.069*** (0.026)	-0.057** (0.028)	-0.120* (0.071)
3 years before	-0.081*** (0.025)	-0.068** (0.027)	-0.208*** (0.079)	-0.070*** (0.024)	-0.071*** (0.026)	-0.054 (0.069)
2 years before	-0.074*** (0.025)	-0.066** (0.026)	-0.172** (0.079)	-0.103*** (0.023)	-0.097*** (0.025)	-0.110 (0.070)
1 year before	-0.133*** (0.025)	-0.123*** (0.026)	-0.242*** (0.082)	-0.178*** (0.023)	-0.164*** (0.025)	-0.216*** (0.071)
Time of event (job loss)						
1 year after	-0.138*** (0.025)	-0.117*** (0.027)	-0.346*** (0.087)	-0.178*** (0.023)	-0.158*** (0.025)	-0.238*** (0.075)
1 year after	-0.133*** (0.027)	-0.104*** (0.028)	-0.431*** (0.095)	-0.160*** (0.025)	-0.152*** (0.026)	-0.150* (0.081)
2 years after	-0.108*** (0.029)	-0.088*** (0.030)	-0.327*** (0.103)	-0.185*** (0.026)	-0.173*** (0.027)	-0.189** (0.087)
3 years after	-0.095*** (0.030)	-0.072** (0.031)	-0.354*** (0.113)	-0.175*** (0.027)	-0.177*** (0.028)	-0.067 (0.093)
4 years after	-0.115*** (0.032)	-0.094*** (0.033)	-0.360*** (0.121)	-0.186*** (0.029)	-0.173*** (0.030)	-0.174* (0.100)
5-15 years after	-0.089** (0.036)	-0.072* (0.037)	-0.292** (0.142)	-0.168*** (0.032)	-0.140*** (0.033)	-0.255** (0.117)
Immigrant*4 years before	-0.058 (0.056)	-0.064 (0.059)	-0.082 (0.197)	0.068 (0.056)	0.043 (0.059)	0.209 (0.158)
Immigrant*3 years before	-0.005 (0.049)	-0.010 (0.051)	-0.026 (0.178)	0.041 (0.050)	0.005 (0.053)	0.310** (0.150)

Cont... Table 4

	Self-rated health					
	Men			Women		
	Total population (a)	Individuals without divorce experience (b)	Individuals with divorce experience (c)	Total population (a)	Individuals without divorce experience (b)	Individuals with divorce experience (c)
Immigrant* 2 years before	-0.093** (0.044)	-0.093** (0.046)	-0.123 (0.169)	0.001 (0.045)	-0.020 (0.048)	0.122 (0.137)
Immigrant* 1 year before	-0.082** (0.041)	-0.082* (0.043)	-0.087 (0.166)	0.023 (0.042)	0.012 (0.045)	0.001 (0.128)
Immigrant* event	-0.097** (0.041)	-0.106** (0.042)	-0.073 (0.161)	-0.035 (0.041)	-0.075* (0.044)	0.219* (0.125)
Immigrant* 1 year after	-0.094** (0.042)	-0.104** (0.044)	-0.230 (0.184)	-0.063 (0.043)	-0.083* (0.046)	0.041 (0.133)
Immigrant* 2 years after	-0.160*** (0.044)	-0.164*** (0.046)	-0.230 (0.198)	-0.025 (0.045)	-0.048 (0.048)	0.079 (0.140)
Immigrant* 3 years after	-0.175*** (0.049)	-0.176*** (0.050)	-0.353 (0.236)	-0.075 (0.048)	-0.103** (0.050)	0.091 (0.149)
Immigrant* 4 years after	-0.178*** (0.050)	-0.168*** (0.052)	-0.624*** (0.236)	-0.092* (0.049)	-0.116** (0.052)	0.006 (0.163)
Immigrant* 5 years after	-0.162*** (0.041)	-0.149*** (0.042)	-0.656*** (0.182)	-0.137*** (0.041)	-0.181*** (0.043)	0.122 (0.130)
Observations	41,420	38,457	2,963	47,126	41,633	5,493
R ²	0.048	0.047	0.085	0.036	0.034	0.057
Adjusted R ²	-0.09	-0.094	-0.028	-0.089	-0.093	-0.057
F Statistic	80.082*** (df = 23; 36174)	71.473*** (df = 23; 33513)	10.595*** (df = 23; 2638)	67.152*** (df = 23; 41735)	56.049*** (df = 23; 36810)	12.849*** (df = 23; 4902)

Note:

* p < 0.05
** p < 0.01
*** p < 0.001

Table 5. The association of the intersection of age and nativity with self-rated health. Ordinary least squares (OLS) regressions by sex, on the total sample (a), on a restricted sample of individuals who did not experience divorce during the observation period (b), on a restricted sample of individuals who experienced divorce at least once (c).

	Self-rated health					
	Men			Women		
	Total population (a)	Individuals without job loss experience (b)	Individuals with job loss experience (c)	Total population (a)	Individuals without job loss experience (b)	Individuals with job loss experience (c)
Age	-0.025*** (0.0005)	-0.024*** (0.001)	-0.026*** (0.001)	-0.024*** (0.0005)	-0.023*** (0.001)	-0.024*** (0.001)
Age ²	0.007*** (0.002)	0.003 (0.002)	0.018*** (0.006)	-0.001 (0.002)	-0.009*** (0.002)	0.008 (0.005)
Age ³	0.010*** (0.002)	0.008*** (0.002)	0.019*** (0.006)	0.014*** (0.002)	0.012*** (0.002)	0.015*** (0.005)
Immigrant (vs native)	0.034*** (0.007)	0.033*** (0.008)	-0.083*** (0.027)	-0.096*** (0.008)	-0.110*** (0.008)	-0.102*** (0.020)
Age*Immigrant	-0.012*** (0.001)	-0.012*** (0.001)	-0.0003 (0.004)	-0.012*** (0.001)	-0.014*** (0.001)	-0.006** (0.003)
Age ² *Immigrant	-0.009* (0.005)	-0.010** (0.005)	0.040** (0.018)	0.0004 (0.005)	0.007 (0.005)	-0.017 (0.014)
Age ³ *Immigrant	0.003 (0.004)	0.005 (0.004)	-0.032* (0.017)	-0.0002 (0.004)	0.004 (0.005)	-0.013 (0.013)
Constant	3.477*** (0.003)	3.493*** (0.004)	3.402*** (0.009)	3.432*** (0.003)	3.467*** (0.004)	3.321*** (0.007)
Observations	192,968	168,599	24,369	207,849	169,722	38,127
R ²	0.091	0.094	0.052	0.069	0.072	0.048
Adjusted R ²	0.091	0.094	0.051	0.069	0.072	0.047
F Statistic	2,761.749*** (df = 7; 192960)	2,508.511*** (df = 7; 168591)	189.400*** (df = 7; 24361)	2,212.598*** (df = 7; 207841)	1,894.515*** (df = 7; 169714)	272.272*** (df = 7; 38119)

Note:

* ** *** p < 0.01

Table 6. Self-rated health trajectory before and after divorce. Fixed-effects (FE) regressions by sex, on the total sample (a), on a restricted sample of individuals who did not experience job loss prior to divorce during the observation period (b), on a restricted sample of individuals who experienced job loss prior to divorce (c).

	Self-rated health					
	Men			Women		
	Total population (a)	Individuals without job loss experience (b)	Individuals with job loss experience (c)	Total population (a)	Individuals without job loss experience (b)	Individuals with job loss experience (c)
Age	-0.040*** (0.004)	-0.036*** (0.004)	-0.058*** (0.009)	-0.024*** (0.003)	-0.025*** (0.004)	-0.021*** (0.006)
Age ²	0.010 (0.009)	0.009 (0.010)	0.016 (0.020)	-0.002 (0.009)	-0.016 (0.011)	0.020 (0.014)
Age ³	0.014** (0.007)	0.006 (0.008)	0.043*** (0.016)	0.019*** (0.006)	0.007 (0.008)	0.034*** (0.010)
Time before and after event (ref 5-10 years before)						
4 years before	-0.012 (0.034)	0.009 (0.037)	-0.089 (0.074)	-0.067** (0.032)	-0.047 (0.040)	-0.103** (0.052)
3 years before	0.040 (0.033)	0.076** (0.037)	-0.077 (0.074)	-0.104*** (0.032)	-0.054 (0.040)	-0.187*** (0.053)
2 years before	0.079** (0.034)	0.109*** (0.038)	-0.021 (0.078)	-0.052 (0.032)	-0.020 (0.040)	-0.112** (0.054)
1 year before	0.041 (0.035)	0.057 (0.039)	-0.009 (0.081)	-0.046 (0.033)	0.004 (0.041)	-0.136** (0.057)
Time of event (divorce)	0.051 (0.037)	0.087** (0.041)	-0.059 (0.086)	-0.026 (0.035)	-0.003 (0.042)	-0.075 (0.060)
1 year after	0.073* (0.040)	0.072 (0.044)	0.088 (0.095)	-0.110*** (0.038)	-0.106** (0.046)	-0.130** (0.066)
2 years after	0.061 (0.043)	0.055 (0.047)	0.107 (0.103)	-0.094** (0.041)	-0.056 (0.050)	-0.174** (0.071)
3 years after	0.091** (0.046)	0.115** (0.050)	0.028 (0.112)	-0.108** (0.044)	-0.101* (0.053)	-0.135* (0.077)
4 years after	0.102** (0.049)	0.099* (0.053)	0.146 (0.121)	-0.113** (0.047)	-0.073 (0.057)	-0.200** (0.084)
5-15 years after	0.111** (0.056)	0.120** (0.061)	0.110 (0.139)	-0.126** (0.054)	-0.093 (0.065)	-0.206** (0.097)
Immigrant*4 years before	0.116 (0.102)	0.039 (0.125)	0.291 (0.183)	0.060 (0.080)	0.043 (0.105)	0.091 (0.124)
Immigrant*3 years before	-0.137 (0.095)	-0.217* (0.120)	0.057 (0.165)	0.182** (0.075)	0.073 (0.099)	0.323*** (0.117)

Cont... table 6

	Self-rated health					
	Men			Women		
	Total population (a)	Individuals without job loss experience (b)	Individuals with job loss experience (c)	Total population (a)	Individuals without job loss experience (b)	Individuals with job loss experience (c)
Immigrant* 2 years before	-0.174** (0.087)	-0.129 (0.111)	-0.119 (0.153)	-0.010 (0.070)	-0.053 (0.093)	0.061 (0.109)
Immigrant* 1 year before	-0.041 (0.090)	-0.093 (0.115)	0.083 (0.158)	-0.037 (0.070)	-0.148 (0.093)	0.108 (0.109)
Immigrant* event	-0.186** (0.085)	-0.148 (0.108)	-0.102 (0.149)	0.019 (0.067)	-0.059 (0.088)	0.112 (0.105)
Immigrant* 1 year after	-0.261*** (0.093)	-0.231** (0.116)	-0.244 (0.164)	0.025 (0.073)	-0.061 (0.096)	0.116 (0.113)
Immigrant* 2 years after	-0.121 (0.098)	-0.040 (0.120)	-0.203 (0.178)	-0.050 (0.078)	-0.144 (0.101)	0.072 (0.122)
Immigrant* 3 years after	-0.195* (0.110)	-0.170 (0.136)	-0.112 (0.199)	-0.023 (0.087)	-0.070 (0.113)	0.029 (0.137)
Immigrant* 4 years after	-0.285** (0.116)	-0.252* (0.143)	-0.281 (0.211)	-0.136 (0.091)	-0.193* (0.115)	-0.063 (0.149)
Immigrant* 5 years after	-0.137* (0.083)	-0.241** (0.100)	0.145 (0.152)	-0.042 (0.065)	-0.106 (0.080)	0.061 (0.109)
Observations	12,667	9,706	2,961	17,793	11,104	6,689
R ²	0.058	0.053	0.085	0.034	0.04	0.03
Adjusted R ²	-0.031	-0.034	-0.019	-0.062	-0.056	-0.07
F Statistic	30.799*** (df = 23; 11572)	21.594*** (df = 23; 8892)	10.715*** (df = 23; 2657)	24.942*** (df = 23; 16179)	18.065*** (df = 23; 10094)	8.099*** (df = 23; 6062)
Note:						* p < 0.05 ** p < 0.01 *** p < 0.001

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