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The Migrant Wealth Gap at the Household Level: Evidence From RIF Regressions for Austria

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Abstract

We investigate how previous generations of migrants and their children integrated into Austrian society, as measured by their wealth ownership. Using data from the Household Finance and Consumption Survey (HFCS), we document a positive average migrant wealth gap between migrant and native households. However, the raw gap is almost negligible for second generation migrant households, whereas it rises across the unconditional net wealth distribution for first generation migrant households and peaks at more than €140,000 around the 75^{th} percentile. Decomposing the partial effects of a set of covariates using RIF regressions suggests that the lack of inheritances and the presence of children have the highest explanatory power for the migrant wealth gap of first generation migrant household. For second generation migrant households, inheritances have the highest impact, but they contribute negatively towards the explanation of the migrant wealth gap. In general, the covariates in our analysis can explain only a small part of the migrant wealth gap. Given the similarity of native and second generation migrant households, we cannot reject the hypothesis that migrants in the past integrated into Austrian society by acquiring comparable wealth levels.

Keywords: Migration, Wealth Distribution, Wealth Gap, Unconditional Quantile Regression

JEL Codes: C31, D31, F22, G51, J15, J61

1 Introduction

Wealth is an indicator of integration – owning a home or a business heightens the sense of "belonging". However, the opportunities to build up wealth are unequally distributed, because an important share of wealth is inherited (Gittleman and Wolff 2004; Semyonov and Lewin-Epstein 2013). Given the relevance of wealth for integration, the specific conditions for wealth accumulation of migrants are of particular interest. International migration has been on the rise over the last decades with an increase in the share of global population living abroad from 2.8% in 2000 to 3.5% in 2019 (United Nations 2020). Since both push and pull factors for migration such as climate change, civil unrest, and global income differences are unlikely to abate substantially in the near future, the issue will remain salient. This paper thus asks the question: How have previous generations of migrants and their native-born descendants integrated into their destination society, as measured by their wealth ownership?

As a poster child for a historically multi-ethnic nation with strong anti-immigrant sentiments, the Austrian case might yield interesting insights into this question. Austria has a longstanding tradition of migration dating back to the Habsburg Empire, which encompassed 14 nationalities, nine official languages, and five recognized religions. More recently, Austria actively attracted a workforce mainly from Turkey and Yugoslavia due to domestic labor shortages in the prosperous post-war period beginning in the 1960s. Temporary recruiting often turned into permanent employment, and family reunions offset falling immigration numbers following the recruitment ban in the 1970s. Political reasons were another push factor for migration to Austria due to its proximity to the former Soviet Union and to the violent disintegration of former Yugoslavia. Today, almost a quarter of the Austrian population either migrated themselves or have at least one parent who migrated. Politically, migration has been a high priority on parties' agenda for decades.

The literature on the migrant wealth gap is dwarfed by research on migrant wage gaps (e.g. Nielsen et al. 2004; Mathä et al. 2011; Lehmer and Ludsteck 2015; Beyer 2019), probably due to limited availability of sufficiently high-quality wealth data, which can be linked to socio-economic characteristics. Nonetheless, the nascent sub-field of migrant wealth studies has been applied to Canada (Shamsuddin and DeVortez 1998; Zhang 2003), the United States (Hao 2004; Gittleman and Wolff 2004; Cobb-Clark and Hildebrand 2006; Bauer et al. 2011), New Zealand (Gibson et al. 2007), Australia (Doiron and Guttmann 2009; Bauer et al. 2011), Germany (Bauer et al. 2011), and Israel (Lewin-Epstein and Semyonov 2013). Regarding components of net wealth, housing is the most well-studied (Coulson 1999; Borjas 2002).

All of these papers find that migrants hold less wealth than natives – which we term a (positive) migrant wealth gap in keeping with the literature – at least at some point of the distribution. Whereas some papers use OLS (Shamsuddin and DeVortez 1998; Lewin-Epstein and Semyonov 2013) or Tobit regressions (Hao 2004), decomposition of quantile regressions has become the standard approach. The literature on migrant wealth gaps typically uses approaches introduced by DiNardo et al. (1996) (Zhang 2003; Cobb-Clark and Hildebrand 2006; Gibson et al. 2007; Bauer et al. 2011) or Machado and Mata (2005) (Doiron and Guttmann 2009). In this paper, we apply recentered influence function (RIF) regressions (Firpo et al. 2018), which bear the advantage of estimating effects across the unconditional distribution of net wealth, and being path independent (i.e., not dependent on the order of the decomposition).

Several factors may explain the raw migrant wealth gap. Direct effects on wealth accumulation include earnings capacity, saving behavior, rates of return, and wealth transfers. However, data for these is rare and may be plagued by reporting issues. The literature thus also relies on a host of indirect factors, among them age, education, family status, employment status, country of origin, and migration cohort.

A number of studies indicate integration in the sense that the migrant wealth gap closes with the duration of stay or subsequent migration cohorts, especially for Canada. Shamsuddin and DeVortez (1998) and Hao (2004) suggest that migrants to Canada catch up with natives within 15-22 years. Zhang (2003) also indicates catch-up in Canada. In contrast, Doiron and Guttmann (2009) do not find that the migrant wealth gap closes over time in Australia, and Borjas (2002) provides descriptive evidence of *declining* levels of assimilation into home ownership by migrants in the United States.

This paper contributes to several strands of the literature: First and foremost, it deepens our understanding of the migrant wealth gap by applying RIF regressions, and providing – to the best of our knowledge – the first estimate for Austria. Second, it speaks to the literature on racial wealth gaps (Gittleman and Wolff 2004; Scholz and Levine 2004; McKernan et al. 2014; Hamilton and Darity 2017), since migration status is a standard basis on which group-based identity is ascribed in Europe. And finally, it complements the migration literature on remittances and wealth gaps of migrants in countries of origin (Garip 2014; Kangmennaang et al. 2018).

Concretely, we examine the net wealth gap between natives and migrants at different percentiles of the net wealth distribution in Austria using the Household Finance and Consumption Survey (HFCS) 2014 provided by the European Central Bank. Applying a RIF regression, we decompose the migrant wealth gap into a composition effect, which is ex-

plained by differences in the distribution of household characteristics, and a structure effect ascribed to differences in the returns to those characteristics.

We find that second generation migrants – in contrast to first generation migrants – are very similar to native households. For first generation migrants, there is a substantial net wealth gap amounting to roughly €130,000 at the mean. This gap is particularly large at the upper half of the distribution and only a very small part can be explained by our controls (education, labor market experience, household size, income, and inheritances). Differences in the distribution of inheritances and work experience help explain the migrant wealth gap, whereas household type and income suggest that the net wealth gap would be even higher. Regarding the structure effect, we notice that differences in the returns to experience widen the net wealth gap while differences in education have the largest negative effect on the gap.

Second generation migrants, however, share much more similarities with natives in terms of net wealth but also with regard to most household characteristics. Here, the net wealth gap is considerably smaller, reaching a maximum of merely €10,000 at the mean. What is striking is that the overall composition effect is negative, meaning that if second generation migrants and natives had the same distribution of household characteristics, the net wealth gap would be even larger. Contrary to the results of first generation migrants, looking at the differences in the distribution of household characteristics, we find that inheritances have the largest negative effect on the gap whereas there is no single effect standing out when it comes to differences in the returns to those characteristics.

The remainder of this paper is structured as follows. Section 2 provides an overview of the wealth survey data from the HFCS, and shows descriptive results. Section 3 discusses the decomposition method in the quantile regression approach, and presents our main results. We carry out robustness checks in Section 4, and Section 5 concludes.

2 Data

Our analysis of the net wealth gap between natives and migrants is based on data of the Household Finance and Consumption Survey (HFCS) 2014 (European Central Bank 2014; Household Finance and Consumption Network 2016). The HFCS is a representative household survey that collects harmonized information on households' finances in euro area countries. It contains complex survey weights, replicate weights, and multiple imputations. All calculations presented here are weighted and take multiple imputations into account by using Rubin's rule (Rubin 1987). The HFCS provides detailed data on households' net wealth and its components, as well as a plethora of demographic and socioeconomic characteristics. The Austrian data set also includes non-core questions on the migration background of each household member, which allows us to differentiate first- and second-generation migrants.

The Austrian HFCS sample covers a total of 6,189 individuals living in 2,997 households. Deleting multi-generation households (which would complicate our migrant household categorization) from our sample leaves us with 5,395 individuals in 2,748 single- and couple-headed households. These may include children under 24 years of age.

The main variable of interest is net wealth, which is defined as the sum of a household's real and financial assets minus its debt. Real assets consist of real estate wealth, vehicles, valuables and self-employment businesses. Financial assets are deposits, non-self-employment businesses, shares, bonds, mutual funds, managed accounts, other financial assets, voluntary pensions, and money owed to the household. Deducted from these are mortgages and other debt.

The determination of the migration background is based on two items in the Austrian HFCS questionnaire: Individuals not born in Austria were asked whether (1) they migrated themselves or (2) at least one parent did. If they responded affirmatively to the first question, then the respondent is coded as first generation migrant. If a parent migrated, then we define the respondent as second generation migrant. Furthermore, we re-assign migrants who moved to Austria before the age of six years (i.e., before school age) as second generation migrants, since they were arguably socialized in Austria. Of our total 2,748 households, 590 (21.5%) are migrant households. In mixed households with both first and second generation migrants, we define a reference person using the highest share in household wealth and, if necessary, income. This yields 302 households of first generation migrants, and 288 households of second generation migrants.

We follow the literature in controlling for wealth accumulation using demographic factors (household type, the presence of children), factors determining income-earning capacity

(education level, years of work experience[1], gross income), and wealth transfers (the receipt of above-average inheritances) into our analysis. For couple-headed households, we transform individual- to household-level variables by taking the sum of income, the mean years of work experience, and the education level of a reference person based on wealth shares, income, and age (in that order). All variables are coded as dummies to facilitate interpretation. Household type is defined as single-/couple-headed household. Education is classified as high starting with a high-school degree (ISCED level 3), the thresholds for high income (€ 25,000) and work experience (15 years) are their respective averages, and high inheritances are defined as larger than median net wealth (€ 86,000).

Table 1 shows summary statistics of our data for native and migrant households. It shows three important stylized facts regarding wealth distribution between native and migrant households: First, native households have substantially higher net wealth both on average and at the median compared to migrant households (first and second column in Table 1). By asset types, while mean values are remarkably similar, participation rates in the home ownership of the main residence vary significantly. Almost half of native households own their main residence, while this is only true for 32% of migrant households, with significant differences for first and second generation. Moreover, the average value of self-employed businesses is some 30% higher for native than for migrant households. The gaps for financial assets are much smaller than for real assets. Finally, migrant households are somewhat more indebted than native households on average, which is mostly attributable to second generation migrants.

The second finding is that the distribution of net wealth is highly right-skewed for both natives and migrants. However, net wealth inequality as measured by the ratio of mean to median wealth indicates that wealth is distributed much more unequally within migrant households than within native households. This ratio equals roughly three for natives and almost six for migrant households. Again, differentiation between first and second generation migrants yields important insights, as the mean-median net wealth ratio amounts to 3.4 for second and to 6.6 for first generation migrants.

Third, as already indicated by the first two stylized facts, the differences between first and second generation migrants are larger than those between natives and migrants in general (columns three and four in Table 1). While the mean net wealth of second generation migrants at about € 244,000 is almost as high as the mean net wealth of natives (about € 254,000), net wealth of first generation migrants is only around € 120,000. This is true at the mean and at the median in all asset subcategories, but most notable – with high variance

[1]Years of work experience is closely correlated with age, but arguably more relevant for wealth accumulation. For a robustness check using age, see section 4.

Table 1 Summary Statistics

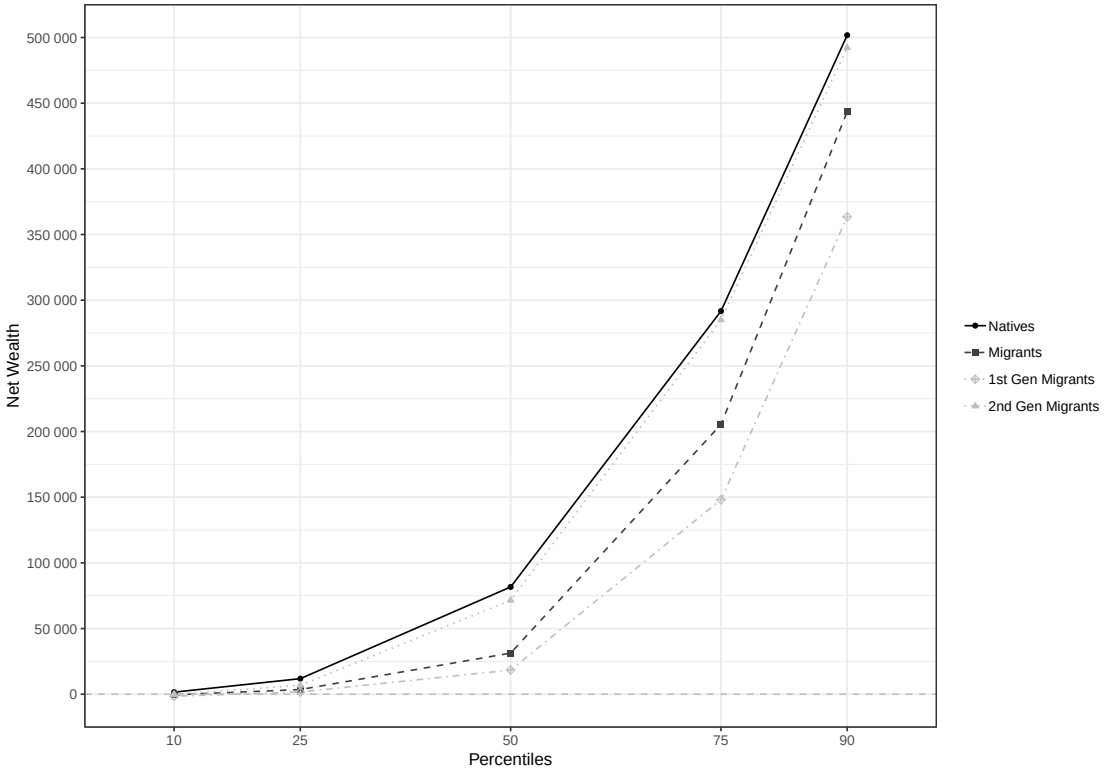
		Natives	Migrants		
			Total	1st Gen	2nd Gen
Net Wealth	Mean	254,365	182,502	120,244	244,236
	(SD)	(37,931)	(78,250)	(15,323)	(152,821)
	Median	81,250	31,201	18,301	70,995
Main Residence	Mean	281,745	281,069	260,445	294,327
	(SD)	(10,171)	(15,563)	(16,886)	(23,767)
	Median	250,000	250,000	250,000	249,652
	%	48.4	31.8	25.0	38.5
Self Empl. Business	Mean	892,996	681,252	281,522	999,283
	(SD)	(421,970)	(1,384,069)	(159,578)	(2,471,100)
	Median	150,082	107,826	114,691	98,658
	%	5.7	5.4	4.7	6.1
Other Real Assets	Mean	57,208	58,336	39,513	76,726
	(SD)	(15,681)	(10,043)	(6,959)	(18,413)
	Median	8,413	10,000	8,200	12,000
	%	81.1	75.1	74.5	75.6
Financial Assets	Mean	39,263	34,233	30,461	37,853
	(SD)	(2,310)	(4,542)	(6,252)	(5,811)
	Median	16,320	12,804	10,659	15,397
	%	96.2	93.0	91.5	94.5
Debt	Mean	51,525	48,092	37,300	59,059
	(SD)	(4,481)	(6,665)	(8,172)	(10,946)
	Median	13,481	10,455	7,896	17,255
	%	32.3	40.7	41.2	40.2
HH Type: Couple	%	50.9	62.9	67.1	58.7
No Children	%	75.3	67.6	60.0	75.3
Education: High	%	85.3	84.9	84.6	85.1
Experience: High	%	75.9	68.9	67.3	70.4
Income: High	%	68.0	69.1	70.8	67.5
Inheritance: High	%	17.8	17.5	13.1	21.8
N		2,158	590	302	288

Source: Own elaboration, data: European Central Bank (2014). Note: This table shows mean, standard deviation (SD), and median of wealth categories, as well as the shares in controls of natives, first, and second generation migrants.

– for business wealth. The only exception are the median values of the main residence and business wealth, where first generation migrants' assets are not worth less, but where they instead have substantially lower ownership rates.

The similarity between second generation migrant and native households is reinforced by the shares in the population, which we show for our control dummy variables at the bottom part of Table 1. In every dimension – couple versus single-adult households, the presence of children in the household, level of education, extent of work experience, and the level of income and inheritances –, second generation migrants are much more similar to native households than first generation migrant households.

Fig. 1 Net wealth by migration status at selected percentiles of wealth distribution



Source: own calculations, data: European Central Bank (2014). Note: This figure shows net wealth for native, first, and second generation migrant households at selected percentiles of net wealth distribution.

Figure 1 shows net wealth by migration status at selected percentiles of the net wealth distribution. While there is a substantial wealth gap between first generation migrant households and native households, the net wealth curve of second generation migrant households closely tracks that of natives. The overall migrant wealth gap is roughly €50,000 at the median. It rises to almost €90,000 at the 75$^{\text{th}}$ percentile, before closing a little again at the top of the distribution (approximately €60,000 at the 90$^{\text{th}}$ percentile.)

To conclude, the descriptive evidence indicates substantial differences between migrants and natives, but also that second generation migrants are much more similar to natives than first generation migrants. In particular, it suggests that the migrant wealth gap may be driven by home ownership rates (which increase notably in the upper half of the distribution) and business wealth at the top of the distribution. As Fig. 1 shows, the averages presented in Table 1 hide economically significant differences across the distribution. These differences are far from uniform, so an analysis of averages is likely to be misleading. The next section will therefore investigate, which factors contribute to explaining the unconditional wealth differences between native and both first and second generation migrant households at different points of the distribution.

3 Method and Results

We use recentered influence function (RIF) regressions (Firpo et al. 2018) to decompose the net wealth gap between natives and first and second generation migrant households into contributions of sociodemographic factors. First, we obtain counterfactual distributions of migrant households *as if* they had the (observable) characteristics of native households. This way, analogous to Kitagawa-Oaxaca-Blinder decompositions (Kitagawa 1955; Oaxaca 1973; Blinder 1973), we are able to assess the part of the migrant wealth gap that can be explained by differences in the composition of individual groups and the part that remains unexplained. The RIF regression then uses the recentered influence function as dependent variable in an OLS specification to estimate the impact of the control variables at specific quantiles of the migrant wealth gap. Thus, we are able to quantify the explanatory power of each variable for the migrant wealth gap.

The RIF is defined as:

$$RIF(y; q_\tau, F) = q_\tau + IF(y; q_\tau, F) = q_\tau + \frac{\tau - \mathbb{1}\{y \leq q_\tau\}}{f_Y(q_\tau)}. \tag{1}$$

where τ is the quantile of interest, q_τ is the value of the quantile of interest, and $\mathbb{1}$ is an indicator which is 1 if net wealth y of a household is below the value of the quantile of interest q_τ, and 0 otherwise. $f_Y(q_\tau)$ is the kernel density estimator at the value of the quantile of interest q_τ using a Gaussian kernel.

Next, we regress the RIF on our covariate vector X for each group, i.e. natives, migrants, and the counterfactual, which is migrants reweighted to have the same distribution of X as natives. The composition effect, which measures the explained differences and thus compares

migrant households to the counterfactual, is then:

$$\Delta_X^\tau = \sum_{k=1}^{K} (\mathbb{E}[X^k|T=1] - \mathbb{E}[X^k|T=0])\gamma_{0,k}^\tau + R^\tau. \quad (2)$$

which is the sum of differences between the expected values of the covariate vector X for the "treatment" group 1 (here, migrant households with counterfactual characteristics $T = 1$) and the control group 0 (here, migrant households with 'actual' characteristics $T = 0$). This is multiplied with the 'returns' on the covariates of migrants, that is, the coefficients recovered from regressing the RIF on the covariates for group 0, $\gamma_{0,k}$. R^τ is an approximation error.

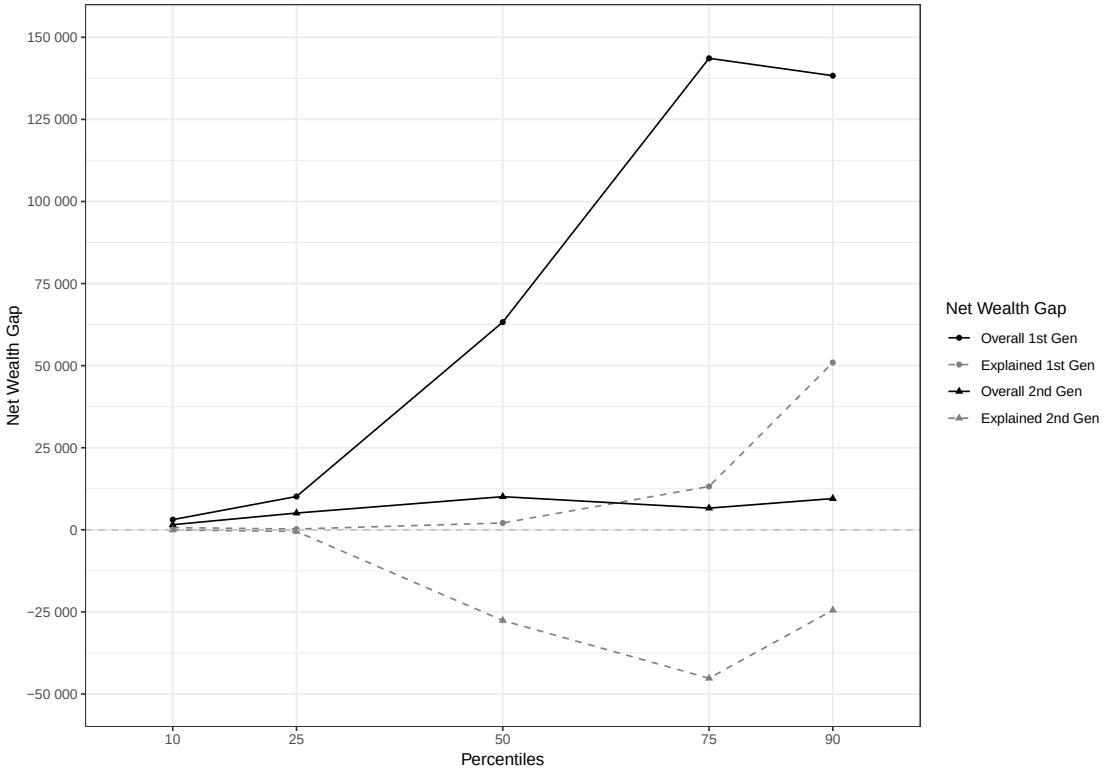
Figure 2 shows the absolute gap in net wealth between natives and first and second generation migrants (solid lines), and its explained part (the composition effect, dashed lines) at the 10^{th}, 25^{th}, 50^{th}, 75^{th} and 90^{th} percentile of net wealth distribution. The difference between the explained gap and the raw gap is the part of the migrant wealth gap that cannot be attributed to the explanatory variables. We observe a small but positive net wealth gap between second generation migrant households and natives across the distribution. However, the negative explained gap at the upper half of the wealth distribution indicates that we would expect second generation migrant households to own even *more* wealth than native households based on their sociodemographic characteristics.

For first generation migrant households, on the other hand, there is a large absolute gap in net wealth compared to natives especially in the upper half of the distribution. Only a small part of this gap can be explained by differences in household characteristics. While the composition effect rises at the top of the distribution, a large part of the migrant wealth gap is unexplained for first generation migrants.

Tables 2 and 3 in the Appendix show the detailed RIF regression results for migrants and natives at selected percentiles of net wealth distribution. The directions of variables are plausible in all cases - for each group, low income, low education, low labour market experience, living in a single adult household, and having children all have a negative effect, whereas high inheritance has a positive effect. Figure 5 in the Appendix provides a graphic illustration of the regression results.

Figure 3 allocates the explained part of the migrant wealth gap, as shown in Fig. 2, to contributions of individual explanatory variables. As discussed above, the composition effect is calculated as the differences in the means of the covariates of counterfactuals and migrants multiplied by the RIF regression coefficients for migrants. This approach is able to reveal

Fig. 2 Migrant wealth gap decomposition for net wealth



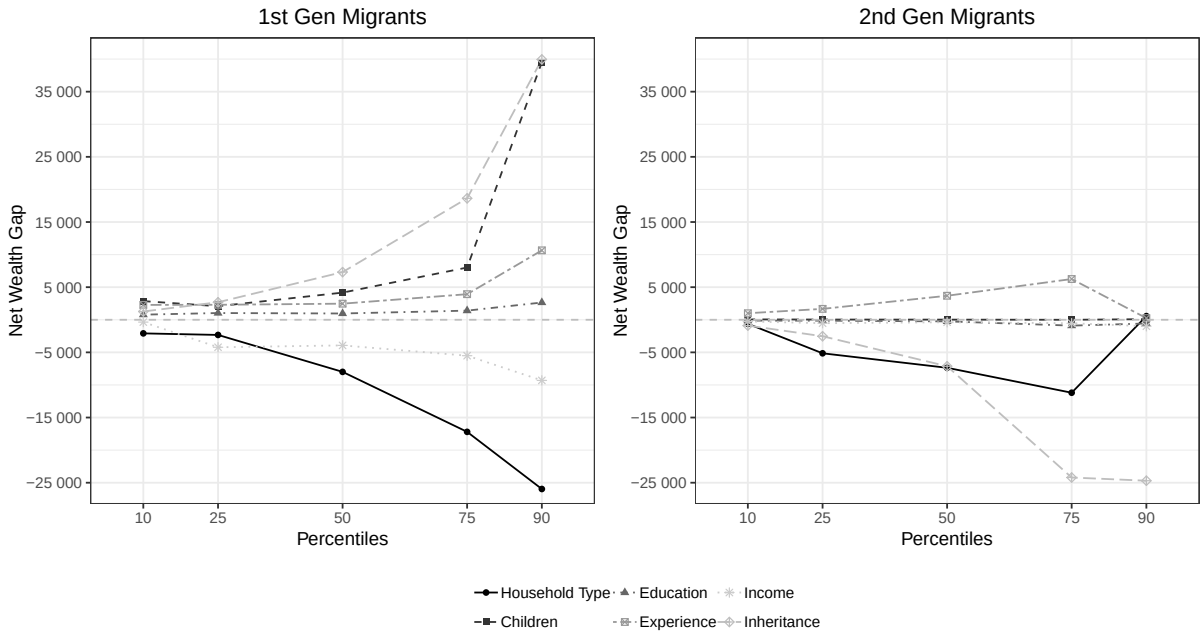
Source: own calculations, data: European Central Bank (2014). Note: This figure shows the absolute raw gap in net wealth between first and second generation migrant households and native households (solid lines) and the explained gap (dashed lines).

counteracting effects of individual variables that are hidden in the aggregate perspective of the explained part.

For first generation migrants, variables like inheritances, children present, work experience, and education contribute towards explaining the wealth gap to natives. Particularly, the receipt of inheritances and the presence of children each explain roughly €40,000 of the migrant wealth gap at the top. As shown in table 1, there are substantial differences in these variables between natives and first generation migrants. Some 18% of natives receive inheritances larger than median net wealth, but only 13% of first generation migrants. Moreover, natives are more likely to live without children in their households than first generation migrants (75% and 60%). In contrast, household type decreases the wealth gap, as the share of first generation migrants living as couple rather than single is higher than for natives. The same is true for income: More first generations migrants are in the high income group, which thus contributes negatively towards explaining the wealth gap (or, equivalently, raises the wealth gap to be explained). While the effects increase on both sides with the unconditional wealth distribution, the factors explaining a positive wealth

gap for natives are larger in absolute terms, which leads to the positive contribution of our control variables towards explaining the migrant wealth gap documented in Fig. 2.

Fig. 3 Partial effects of controls for migrant households



Source: own calculations, data: European Central Bank (2014). Note: This figure shows the partial effects of the control variables education, experience, household type, children, income, and inheritance in explaining the migrant wealth gap between natives and first and second generation migrants across the unconditional wealth distribution.

For second generation migrant households, the picture is very different. As indicated in Fig. 2, the migrant wealth gap is much smaller for second generation migrants, and the composition effect even suggests that migrants' wealth would even be higher than natives'. The partial effects of the explanatory variables are thus much smaller in size. Education levels, income, and children explain very little of the migrant wealth gap. Work experience is the only covariate that contributes towards explaining a positive wealth gap for natives, whereas household type and especially inheritances have a negative effect. That is, given the higher inheritances and the lower levels of single households among second generation migrant households compared to natives, we would expect migrant households to have higher wealth.

Whereas the explanatory power is small at the bottom of the distribution where the migrant wealth gap is also very small, as for first generation migrants, the magnitude of effects peaks well within the upper half of the distribution, and disappears again by the 90^{th} percentile for work experience and household type. Only the partial effect of inheritance

remains large at the top of the distribution.

Naturally, these findings should be interpreted with caution. The large unexplained part may be due to omitted variables or discrimination. Note, however, that a number of previous studies also find that only a relatively small part of the migrant wealth gap is explained (Zhang 2003; Bauer et al. 2011). Furthermore, a drawback of the RIF regression is that we are only able to include data which are available for both groups. Unfortunately, this precludes us from incorporating the time since arrival into our analysis, which per definition does not exist for second generation migrant nor native households. For this reason, we are not able to distinguish cohort effects beyond the indicative analysis presented here.

Nonetheless, our findings suggest that the migrant wealth gap for first generation households documented in section 2 cannot be fully explained by the covariates for which we are able to control. For second generation migrants, the covariates suggest a *negative* wealth gap with respect to native households, rather than the very similar net wealth which we observe. The main factors contributing to the (limited) explanatory power are household type, the presence of children, and especially inheritances.

4 Robustness checks

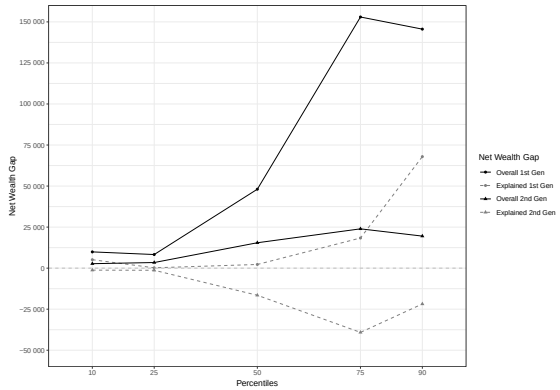
We check the robustness of our findings by, first, using gross wealth instead of net wealth to ensure that debt is not driving our results. Second, we replace years of work experience with age, which is used more commonly in the literature.

Figure 4a shows that the gross wealth gap for first generation migrants hardly differs from the net wealth gap, since they have very little debt. The explained gap is also very similar. Second generation migrants have a slightly larger gross wealth gap, especially around the 75^{th} percentile. However, again, the explained gap hardly changes. Our findings also hold both qualitatively and quantitatively for partial effects (Fig. 6 in the Appendix).

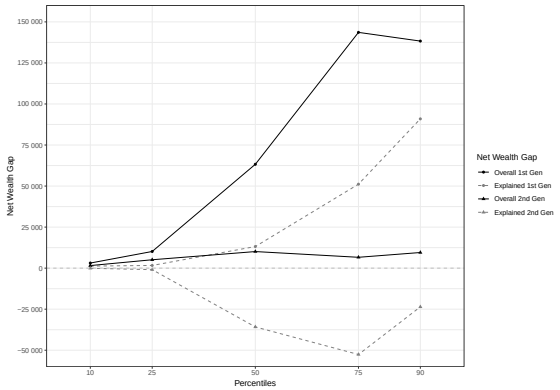
Regarding age, our objective is to measure the ability to accumulate wealth through income-earning capacity, and this should be captured more precisely by years worked. Nonetheless, age is used more commonly in the literature, possibly due to data constraints. For consistency, Fig. 4b shows the net wealth gap, as well as the part explained by our covariates. Age is able to explain a larger part of the wealth gap of first generation migrants; it hardly affects the results for second generation migrants. As is to be expected, this carries over to the partial effects (Fig. 7 in the Appendix): Age rises in importance in explaining differences between first generation migrant households and natives. The partial effects of second generation migrant households remain largely unchanged.

Fig. 4 Migrant wealth gap decomposition for gross wealth and controlling for age

(a) Gross wealth



(b) Net wealth controlling for age



Source: own calculations, data: European Central Bank (2014). Note: Figure 4a shows the absolute raw gap in gross wealth between first and second generation migrant households and native households (solid lines) and the explained gap (dashed lines). Figure 4b shows the same for net wealth, controlling for age instead of years of work experience.

5 Conclusion

This paper asks the question how migrants to Austria have been able to integrate into society, as measured by their participation in wealth ownership. Using data from the HFCS 2014 (European Central Bank 2014), we apply RIF regressions to decompose the net wealth gap between native, as well as first and second generation migrant households at different points of the net wealth distribution, while controlling for household type, the presence of children, education, work experience, income, and inheritances.

The raw data show three main findings: First, there is a migrant wealth gap (that is, migrant households own less wealth than natives) across most of the net wealth distribution, which rises especially in the upper half of the distribution before closing somewhat at the top. The gap is mostly driven by home ownership rates and the value of businesses. Second, net wealth is distributed highly unequally within each group, but even more so for migrant households. Third, and most important for this paper, the migrant wealth gap appears to be mostly due to first generation migrant households. At the 75^{th} percentile, first generation migrant households own roughly €140,000 less net wealth than natives. In contrast, second generation migrant households are remarkably similar to native households both in the ownership of net wealth and its components, and in the household characteristics we control for.

Differences in sociodemographic variables are able to explain a part of the migrant wealth gap. For first generation migrants, the explained part amounts to less than a third in the upper half of the distribution. For second generation migrants, covariates have a negative contribution towards explaining the net wealth gap – that is, we would estimate second generation migrants to have higher wealth than natives based on our observed covariates, when in fact there is a small but positive migrant wealth gap across the unconditional distribution of net wealth.

Regarding partial effects of controls, we find for first generation migrant households that inheritances, the presence of children, work experience, and education help explain the gap (in that order). In all these cases, the socioeconomic characteristics of first generation migrant households predict a lower net wealth level, especially at the top of the net wealth distribution. Income and especially household type, on the other hand, contribute negatively towards explaining the migrant wealth gap of first generation migrant households.

For second generation households, partial effects are more limited in size. Work experience is the only covariate that contributes significantly towards explaining the migrant wealth gap, whereas household type is again negatively correlated with the migrant wealth

gap. Both are relevant mostly in the middle of the net wealth distribution (25^{th} to 75^{th} percentile). Inheritances, on the other hand, have the largest negative partial effect at the top of the distribution.

Overall, our analysis thus cannot reject the hypothesis that migrants integrated into Austrian society by acquiring comparable wealth levels. However, especially for first generation migrants a substantial part of the migrant wealth gap remains unexplained. Several interesting research questions remain open for future research with higher-quality data. First, a direct measurement of factors affecting wealth accumulation – such as saving rates, rates of return, or rates of capital appreciation – may yield clearer insights into the wealth dynamics driving the migrant wealth gap. Second, investigating region of origin and cohort effects would add nuance to our understanding of the migrant wealth gap in Austria. Finally, the factors driving the differences in returns to characteristics (i.e., the structure effect) may be interesting for understanding how discrimination might shape the possibilities for integration. More detailed qualitative research might be especially useful in this regard.

Compliance with ethical standards

The authors have no conflicts of interest to declare.

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A Appendix

Table 2 Results of the RIF Regression for Migrant Households

(a) 1st generation migrants

	p10	p25	p50	p75	p90
Intercept	22094**	45532**	65652**	215479**	533457**
	(7098)	(13836)	(15565)	(39377)	(99928)
HH Type: Single	−11845	−13205	−45375†	−97613†	−147392
	(12874)	(18391)	(23797)	(52013)	(130328)
No Children	−17092	−12424	−24879	−47852	−235969*
	(10519)	(15893)	(17838)	(41737)	(119451)
Education: Low	−34785	−45806†	−42657*	−62039†	−117025*
	(22574)	(25043)	(20752)	(33206)	(45323)
Experience: Low	−24941†	−25176	−27040†	−42964	−116549†
	(13577)	(15293)	(14363)	(34622)	(65149)
Income: Low	−7034	−82878**	−77313**	−108313*	−182879
	(13698)	(20403)	(22315)	(49343)	(120027)
Inheritance: High	20828*	44093**	119862**	305371**	654680**
	(8502)	(10738)	(13234)	(56348)	(209122)
R^2	.05	.24	.33	.26	.19
Observations	302	302	302	302	302

(b) 2nd generation migrants

	p10	p25	p50	p75	p90
Intercept	24714**	56403**	114233**	292467**	429856**
	(9135)	(16333)	(23579)	(60978)	(78024)
HH Type: Single	−7403	−61740**	−88447**	−134372†	6734
	(16280)	(21684)	(29909)	(77522)	(117898)
No Children	−28869†	−16793	−10539	408	−45835
	(15112)	(18085)	(26177)	(88652)	(116960)
Education: Low	−23494	−25346	−44643	−163921*	−104163
	(21091)	(27290)	(27215)	(69638)	(69283)
Experience: Low	−17130	−28591	−62939*	−106781	−4346
	(17333)	(20721)	(27238)	(67706)	(72723)
Income: Low	−31276	−62722*	−45279	−63544	−118522
	(21903)	(28532)	(29211)	(86402)	(117506)
Inheritance: High	21340†	60355**	170295**	578110**	589812**
	(11616)	(15039)	(25907)	(98264)	(144095)
R^2	.08	.22	.34	.31	.17
Observations	288	288	288	288	288

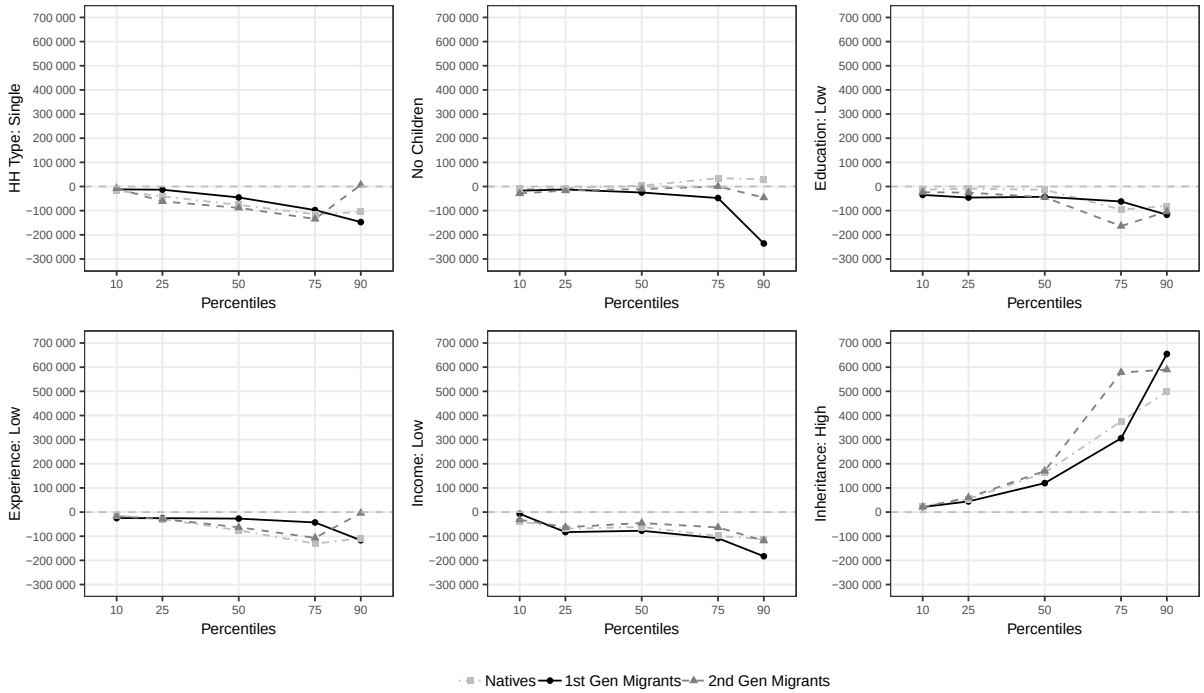
Source: own calculations, data: European Central Bank (2014). $^{\dagger}p < .10$, $^{*}p < .05$, $^{**}p < .01$

Table 3 Results of the RIF Regression for Native Households

	p10	p25	p50	p75	p90
Intercept	25837**	54242**	129148**	350044**	532110**
	(3381)	(4143)	(8230)	(21143)	(35733)
HH Type: Single	−17033**	−41136**	−76079**	−114927**	−105512*
	(4179)	(6321)	(11036)	(23771)	(40321)
No Children	−9946*	−6800	3570	34309	30141
	(4146)	(4880)	(10226)	(25486)	(44201)
Education: Low	−13605*	−8689	−13750	−95507**	−80791*
	(6216)	(7389)	(14382)	(24102)	(34075)
Experience: Low	−14346**	−28995**	−75589**	−130796**	−108567**
	(5345)	(6505)	(10847)	(21008)	(32361)
Income: Low	−38438**	−68661**	−62025**	−98927**	−112603**
	(4999)	(7037)	(11372)	(20848)	(35400)
Inheritance: High	23125**	53765**	163025**	375498**	498014**
	(2781)	(4351)	(9381)	(33246)	(71534)
R^2	.12	.25	.28	.24	.12
Observations	2158	2158	2158	2158	2158

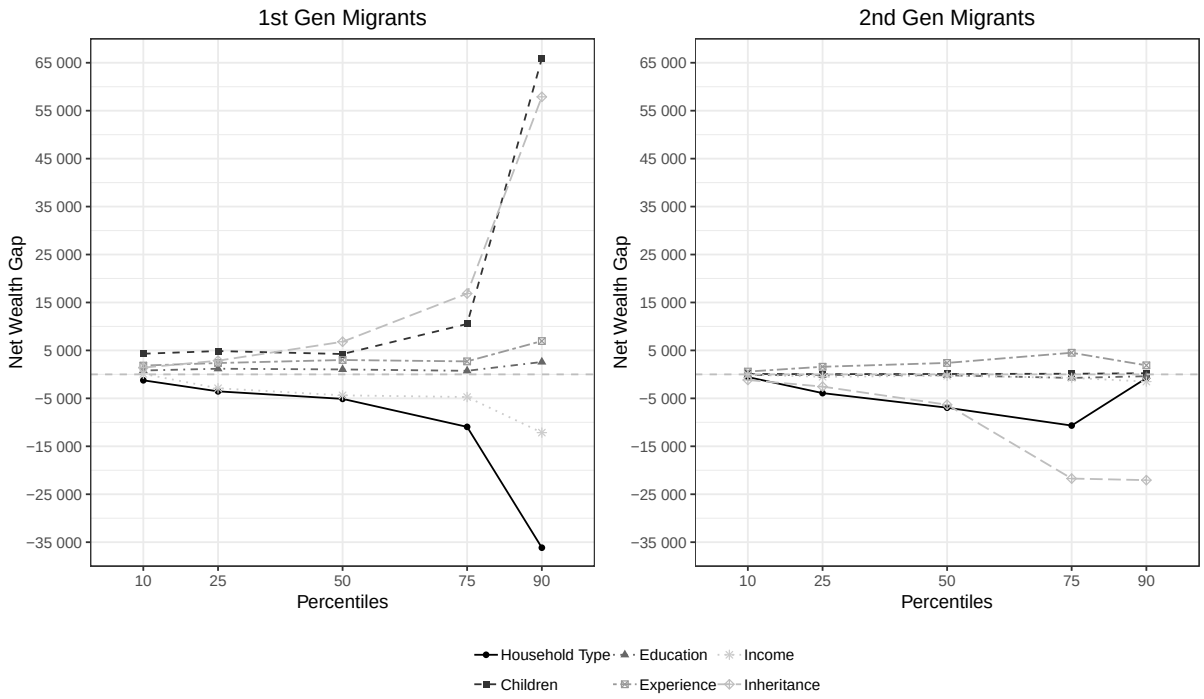
Source: own calculations, data: European Central Bank (2014). $^{\dagger}p < .10$, $^{*}p < .05$, $^{**}p < .01$

Fig. 5 Coefficients for natives, 1st and 2nd generation migrant households



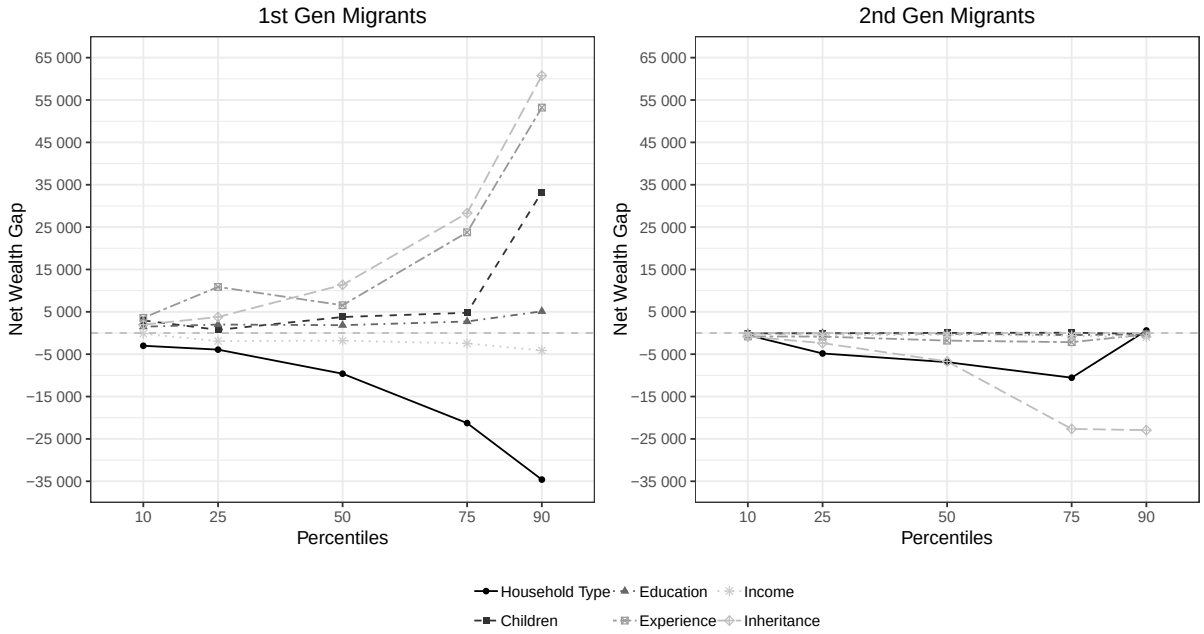
Source: own calculations, data: European Central Bank (2014). Note: This figure shows the coefficients of the control variables education, experience, household type, children, income, and inheritance in explaining the migrant wealth gap across the unconditional wealth distribution.

Fig. 6 Partial effects of controls for migrant households, gross wealth



Source: own calculations, data: European Central Bank (2014). Note: This figure shows the partial effects of the control variables education, experience, household type, income, and inheritance in explaining the migrant wealth gap between natives and 1st and 2nd generation migrants across the unconditional gross wealth distribution.

Fig. 7 Partial effects of controls (including age) for migrant households



Source: own calculations, data: European Central Bank (2014). Note: This figure shows the partial effects of the control variables education, age (instead of years of work experience), household type, income, and inheritance in explaining the migrant wealth gap between natives and first and second generation migrants across the unconditional net wealth distribution.

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