The Many Forms of Multiple Migrations: Evidence from a Sequence Analysis in Switzerland, 1998 to 2008

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Abstract

This article provides estimates of different kinds of contemporary migration trajectories, highlighting multiple or repeated migrations. Using sequence analysis on linked longitudinal register data, we identify different migration trajectories for three cohorts (1998, 2003, and 2008) of 315,000 immigrants in Switzerland. Multinominal regression analysis reveals the demographic characteristics associated with specific migration trajectories. We demonstrate high heterogeneity in migration practices, showing that direct and definitive settlement in the destination country remains a common trajectory and that highly mobile immigrants are less common. We conclude that accounts of a fundamental “mobility turn” have been overstated.
Abstract: This article provides estimates of different kinds of contemporary migration trajectories, highlighting multiple or repeated migrations. Using sequence analysis on linked longitudinal register data, we identify different migration trajectories for three cohorts (1998, 2003, and 2008) of 315,000 immigrants in Switzerland. Multinomial regression analysis reveals the demographic characteristics associated with specific migration trajectories. We demonstrate high heterogeneity in migration practices, showing that direct and definitive settlement in the destination country remains a common trajectory and that highly mobile immigrants are less common. We conclude that accounts of a fundamental ‘mobility turn’ have been overstated.

The many forms of multiple migrations: Evidence from a sequence analysis in Switzerland, 1998 to 2008

Introduction

The number of individuals moving to another country has increased in the last two decades, especially in Europe (Recchi, 2015), where since 1992, citizens of the European Union (EU) and associated countries have had the right to freely move to and reside in another participating country. As in other receiving regions, migration flows in Europe have not only increased in number but also become more complex, as the motivations and modalities of migration journeys have grown in diversity (King, 2002). These changes have led researchers such as Sheller and Urry (2006) to suggest that mobility characterizes contemporary life and to proclaim a ‘mobility turn’ where mobility is the norm and the notions of origin and destination countries have largely ceased to be meaningful. Several studies provide good estimates of these growing migration flows from the perspective of Western receiving countries (Abel, 2018; Abel and Sander, 2014; Czaika and de Haas, 2014) and, thus, support one part of the ‘mobility turn.’ However, we lack good quantitative estimates of the increasingly complex migration trajectories also stipulated by the ‘mobility turn’.

Evidence for complex motivations and modalities of migration journeys comes mostly from qualitative studies examining specific immigrant groups – particularly people who can benefit from mobility – and from broad accounts of changing migration patterns (Favell, 2011; King, 2002; Toma and Castagnone, 2015). Among these complex modalities, existing research particularly highlights migration trajectories that include repeated, short-term, and unpredictable movements (Favell, 2011; Schapendonk et al., 2018). At the individual level, multiple motives and constraints influence each decision to migrate, and lead to many possible ways of reaching a destination country (Flahaux and De Haas, 2016; Vertovec, 2015).

Such repeated and short-term mobile trajectories however, are missed by quantitative studies that only count international migrants who reside for at least one year in a destination country (King, 2012). For an accurate picture of contemporary migrations, we must not only enumerate different migration trajectories but also include short-term immigrants, such as seasonal workers or businesspeople on temporary assignments abroad. Moreover, we must take into account both internal and international migrations because they follow similar logics and dynamics (King and Skeldon, 2010; Skeldon, 2006). By taking a broader definition of immigrants and studying individual migration trajectories using comprehensive data, we provide an empirical picture of the different forms of contemporary migration, including a description of the extent of different forms of multiple migrations. We define multiple migrations here as crossing a border more than once in a lifetime to live in a different country. Multiple migrations can entail a return migration to the origin country, onward migration – that is, migration to a country other than the origin or destination country – or repeated moves between two (or more) countries. We refer to multiple migrations in the plural because we
include diverse migration patterns and the connections between internal and international migration. This article enumerates the complexities of migration trajectories in Switzerland at the turn of the 21st century. Drawing on a quantitative sequence analyses, we classify different trajectories in a case where multiple migrations are likely because of Switzerland’s open economy and the large flows of immigrants from the EU to Switzerland. After outlining sequence analysis as a new method in migration research, we use newly linked register data on three immigrant cohorts to show that most immigrants stay in Switzerland for only a short period. Contrary to dominant accounts of the mobility turn (e.g., Sheller and Urry 2006), however, we find only limited evidence of highly mobile individuals who repeatedly spend short periods in Switzerland. Looking at temporal trends, we find no evidence for increased mobility over time. In the final section of this paper, we explore individual demographic characteristics associated with the choice of different migration trajectories. Overall, we demonstrate that patterns of migration exist in various forms, ranging from permanent settlement to high mobility, rather than finding an increase in mobility across the board, as implied by researchers such as Sheller and Urry (2006).

Drivers of Multiple Migrations

Increasingly influenced by the mobility paradigm, migration research today encompasses a broad understanding that includes movements at different scales and highlights immigrants’ agency (Baas, 2017; Söderström et al., 2013). Recent theoretical developments on migration flows highlight how migration consists of two steps: an ambition to move and a capability to move (Carling and Schewel, 2018; De Haas, 2014). While studies have applied these steps to the decision to move to Europe (e.g., Flahaux and De Haas 2016), they equally apply to subsequent migration decisions: remigration. For example, single and childless individuals remigrate more often because without family constraints, they have more independence and flexibility (Fioretta and Wanner, 2017; Pecoraro, 2012). Similarly, contextual and legal constraints like citizenship and visa requirements (Czaika and de Haas, 2017) may prohibit people from moving to specific countries or lead to multiple migrations if immigrants cannot remain in a country after their initial stay. Over time and across contexts, immigrants encounter changing economic, social, and legal opportunities and constraints that shape their (re)migration intentions and pathways (Mas Giralt, 2017; Schapendonk, 2012). For these reasons, researchers increasingly question the implicit equation of immigration with one-way movements across international borders (Cresswell, 2006; Steiner and Wanner, 2019).

Although we note an increasing interest in different forms of migration trajectories in the past two decades (Cassarino, 2004; Lundholm, 2012), empirically, researchers have struggled to capture multiple migrations because most existing statistics on migration flows draw on nation-states as units of analysis (Glick Schiller and Salazar, 2013) and because official statistics do not normally trace immigrants after they have left the country. What looks like a simple entry and exit from a given country’s perspective, however, may reflect a single, linear move or a repeated movement across one or multiple national borders. To differentiate among different kinds of migration, migration scholars have used a number of strategies. Weber and Saarela (2017), for example, linked administrative register data from Sweden and Finland. In other cases, scholars have used surveys to collect retrospective information about people’s migration history (see Steiner and Landös (2019) for an overview of such surveys). The information in these survey data, however, tends to be limited, biased, or both (Beauchemin, 2014), leaving scholars with an incomplete picture of the phenomenon.
Multiple Migrations in Switzerland

In this article, we study multiple migrations in Switzerland. As a high-income country with a high living standard, Switzerland attracts many immigrants. In 2018, it had Europe’s third-highest immigration population (28.7%, after Liechtenstein with 65.8% and Luxemburg with 46.5%). Between 1945 and 2002, Switzerland established a model of circulating guest workers from Southern Europe (mainly Italy, Spain, and Portugal) to satisfy economic demand for low-skilled workers (Ruedin et al., 2015). Seasonal guest workers could stay for 9 consecutive months per year, after which they had to remigrate (return or move to another country). After 4 consecutive years, they could request permanent settlement and, thus, family reunification (Piguet, 2005).

In 2002, Switzerland adopted the Agreement of the Free Movement of Persons (AFMP) with countries of the EU and EFTA. Within the 26 participating countries, EU and EFTA citizens can freely move and settle in another country, opening migration flows to market dynamics (Geddes, 2003). At the same time, access to nationals from countries outside the EU or EFTA became more difficult if they were not highly qualified workers. For this group, entry was restricted to family reunification, study, and asylum (Piguet, 2005). As a consequence of the AFMP in 2002, migration flows dramatically increased in Switzerland (Figure 1), particularly from Germany.

FIGURE 1: Immigration and emigration among the foreign permanent resident population (EU-28, non-EU), Switzerland 1991-2017

Note: AFMP = Agreement on the Free Movement of Persons
Data: ZAR and STATPOP, Swiss Federal Statistical Office (SFSO)

2 Transitory periods were in place until 2007 and 2011, depending on the country, after which citizens from EU/EFTA countries gained equal access to the Swiss labor market as national workers.
Concurrent with the beginning of the AFMP, immigrants’ skill composition changed in Switzerland (Wanner and Steiner 2018). Because of structural changes in the labor market, Switzerland experienced a gradual change from predominantly low-skilled guest workers through the 1980s to a bifurcation in which highly skilled and low-skilled workers are relatively overrepresented compared to the Swiss population in the early 2000s (Müller-Jentsch, 2008; Wanner et al., 2016). In 1991, 33% of immigrants in Switzerland had a university degree; of the 2008 cohort, 54% had a degree (see Table 1). The skill composition of Switzerland’s foreign-born population also varied by origin regions. Between 2006 and 2016, 90% of immigrants from the United Kingdom, North America, and India had tertiary degrees, as did more than two-thirds of immigrants from France, Germany, and Austria (Wanner and Steiner, 2018). In contrast, among immigrants from African countries or Portugal, the share without degrees was 44% and 34%, respectively (Wanner and Steiner, 2018).

TABLE 1: Sociodemographic characteristics of three cohorts of first immigrants in 1998, 2003 and 2008, Switzerland

<table>
<thead>
<tr>
<th>Percentages by nationality</th>
<th>1998</th>
<th>2003</th>
<th>2008</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Germany</td>
<td>16.8</td>
<td>25.9</td>
<td>32.0</td>
<td>25.4</td>
</tr>
<tr>
<td>Italy</td>
<td>9.5</td>
<td>7.4</td>
<td>5.9</td>
<td>7.5</td>
</tr>
<tr>
<td>Portugal</td>
<td>16.6</td>
<td>9.9</td>
<td>8.7</td>
<td>11.6</td>
</tr>
<tr>
<td>Other EU17/EFTA</td>
<td>24.0</td>
<td>21.8</td>
<td>19.6</td>
<td>21.6</td>
</tr>
<tr>
<td>Other Europe</td>
<td>15.1</td>
<td>15.9</td>
<td>14.7</td>
<td>15.2</td>
</tr>
<tr>
<td>Non-Europe</td>
<td>18.0</td>
<td>19.1</td>
<td>19.1</td>
<td>18.7</td>
</tr>
<tr>
<td>Percentages by age group</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0-17 years old</td>
<td>11.4</td>
<td>11.7</td>
<td>11.8</td>
<td>11.6</td>
</tr>
<tr>
<td>18-24</td>
<td>25.3</td>
<td>27.5</td>
<td>23.0</td>
<td>25.1</td>
</tr>
<tr>
<td>25-44</td>
<td>53.3</td>
<td>50.8</td>
<td>53.8</td>
<td>52.7</td>
</tr>
<tr>
<td>45+</td>
<td>10.0</td>
<td>10.1</td>
<td>11.5</td>
<td>10.6</td>
</tr>
<tr>
<td>Percentages by marital status</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Single</td>
<td>61.8</td>
<td>63.4</td>
<td>65.9</td>
<td>63.9</td>
</tr>
<tr>
<td>Married</td>
<td>35.9</td>
<td>33.4</td>
<td>30.5</td>
<td>33.1</td>
</tr>
<tr>
<td>Divorced/widowed</td>
<td>2.3</td>
<td>3.2</td>
<td>3.6</td>
<td>3.1</td>
</tr>
<tr>
<td>Sex ratio</td>
<td>1.35</td>
<td>1.25</td>
<td>1.24</td>
<td>1.28</td>
</tr>
<tr>
<td>Percentages by education level*</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mandatory</td>
<td>32.2</td>
<td>30.5</td>
<td>19.0</td>
<td>25.1</td>
</tr>
<tr>
<td>Secondary</td>
<td>20.2</td>
<td>21.7</td>
<td>26.8</td>
<td>23.9</td>
</tr>
<tr>
<td>Tertiary</td>
<td>47.6</td>
<td>47.9</td>
<td>54.2</td>
<td>51.0</td>
</tr>
<tr>
<td>Observations</td>
<td>98,689</td>
<td>98,142</td>
<td>119,768</td>
<td>316,599</td>
</tr>
</tbody>
</table>

Data: Swiss Longitudinal Demographic Dataset, ZAR and STATPOP
* Education level numbers were estimated by Wanner & Steiner (2018) on all immigrant entries.

Numbers include short-term immigrants and thus differ from those in Figure 1 because the Swiss Federal Statistical Office uses a different definition of migration.
Around the world, highly qualified immigrants and students are characterized by high levels of social and human capital and use multiple migrations to develop their skills and resources as a way to attain highly qualified occupations (Nekby, 2006; Zufferey, 2019). The need for human and social capital, however, also drives multiple migrations among low-skilled migrants (Paul, 2011). For example, many Filipino migrants in South Asia use a stepwise strategy to accumulate experiences in several countries, which can provide them with the opportunity to move to their desired destination (Paul, 2011). At the same time, immigrants who failed to do so well as they expected economically often adapt their migration projects and seek success in another country or return to their origin country (Greenwood and Trabka, 1991; Kelly and Hedman, 2016). Given Switzerland’s open economy and demand for highly skilled workers, we can expect a substantial increase in multiple migrations after the implementation of the AFMP.

Data and Methods

To study migration trajectories and multiple migrations, we need longitudinal data (Agunias, 2006). We use a dataset that links Switzerland’s central alien register (ZAR) and population register (STATPOP) from 1998 to 2013 (Steiner and Wanner, 2015). Since 1998, the ZAR has included personal identification numbers that allow for longitudinal analysis, although the ZAR does not cover asylum seekers, diplomats, or the approximately 58,000 to 105,000 undocumented immigrants from outside the EU/EFTA (Morlok et al., 2016). By linking these datasets, we can longitudinally follow international entries and exits, as well as change in residence, permit, nationality (naturalization), and marital status between 1998 and 2013. Contrary to register data in Nordic countries, the Swiss registers include true short-term immigrants who stay in the country for less than three months (e.g., in education or business). This inclusion of very short-term migrants allows us to provide a more complete picture of different migration trajectories. Although the register data we use were collected for administrative purposes, they have good quality (Steiner and Wanner, 2015).

Our data cover three immigration cohorts (1998, 2003, 2008) of over 350,000 first-time immigrants to Switzerland. We excluded approximately 3% of this sample because of illogical trajectories (e.g., someone immigrating to Switzerland twice in a row without an exit between), 5.6% because of an inconsistency corrected later (the correction did not rectify the previous events’ timing), and less than 1% because of death or naturalization before the end of the observation period. The final population consists of 316,599 individuals (Table 1).

We trace migration trajectories that begin with a first arrival in Switzerland from abroad and follow all spatial movements, internally and internationally, on a monthly basis over 5 years. With a fixed temporal granularity at one month, we can record at most one movement per month. In the rare case that highly mobile individuals changed residence more than once per month, we only consider the last move per calendar month. The spatial granularity of internal migration was defined by Switzerland’s 106 spatial mobility regions – comprehensive areas defined by the economic structure of municipalities and metropolitan areas. Created by Schuler, Dessemontet, and Joye (2005), these spatial divisions have been used to study foreigners’ internal mobility in Switzerland (Lerch, 2012). Although migration is intrinsically a transition (Courgeau, 1980) or move from one location to another, we measure trajectories of multiple migrations as a sequence of states in which each state consists of the sum of monthly statuses that reflect previous internal and international movements.

Analytically, we begin with a description of migration trajectories between 1998 and 2013 by means of a typology of 14 clusters. This analysis describes how immigrants move across the Swiss national border and within the country. We can identify the most common migration trajectories and transitions and enumerate how long immigrants spend in different places. We also evaluate the impact of the AFMP and the 2008 economic crisis on changes in migration.
In doing so, we restrict the analysis to a sample of comparable individuals belonging to three immigration cohorts, as illustrated in Figure 1. The first cohort consists of immigrants who arrived in 1998, before the AFMP. The 2003 cohort consists of immigrants who arrived shortly after the provision of free movement. The 2008 cohort consists of immigrants who arrived at the onset of the financial crisis but after EU-17 and EFTA citizens had gained full access to the Swiss labor market.

**Sequence Analysis**

Sequence analysis is a data-driven approach for exploring trajectories (Abbott and Tsay, 2000). Researchers have frequently used it in life-course research (Ritschard and Oris, 2005) but rarely in migration research (c.f., Kleinepier, de Valk, and van Gaalen (2015) and Pollock (2007)). Toma and Castagnone (2015) sequentially analyzed multiple migrations for the first time, mapping the mobility trajectories of Senegalese immigrants moving to or between France, Italy, and Spain, but with approximately 700 immigrants, their sample was heavily restricted.

Figure 2 exemplifies some sequences of migration, using distinct colors to portray the trajectories of four fictitious individuals over 60 months. Yellow indicates residence in Switzerland, while blue indicates residence in another country. We assign a different shade for subsequent moves: Red indicates internal migration, while green indicates international movements. Individual 1 in Figure 2 is a classic return migrant, moving to Switzerland and returning to the origin country after 30 months. Individual 2 is more mobile, moving to Switzerland 4 times and leaving the country 3 times. Yellow indicates the first period after arrival in Switzerland; green indicates subsequent stays in Switzerland, interrupted by periods abroad in blue. We use different green hues to highlight increasing mobility. Individual 3 moved several times internally, indicated by different shades of red. Internal and international migration can also occur at the same time, as individual 4 illustrates: immigration – emigration – immigration – internal move – internal move – emigration – immigration.

The combination of green for international movement and red for internal movement yields shades of brown. These visualizations demonstrate the complexity behind multiple migrations. The sequence analysis differentiates between periods in the destination country, depending on the preceding migration trajectory, as is illustrated with different hues of red, green, and brown. We can enumerate the time spent in each state to distinguish short- and long-term movement.
The four examples in Figure 2 highlight the many different possible migration trajectories. To reduce heterogeneity among the 316,599 individual trajectories and to facilitate a meaningful analysis, we searched for similar patterns of migration using sequence analysis (Abbott and Tsay, 2000). First, we created a dissimilarity matrix and computed pairwise distances between each individual. Second, we used cluster analysis to group similar sequences. The computation of a dissimilarity matrix for 316,599 individuals would create a matrix with 100 billion cells, so we first regrouped and weighted the 36,897 unique trajectories in the data. We tested several optimal matching (OM) algorithms with different transition costs (assigning gradual replacement weights according to the difference between the numbers of international and internal migrations) and selected the one that best reflected the heterogeneity seen in the exploratory clustering analyses. We defined substitution costs according to the difference in the number of international and internal migrations on a logarithmic scale.

We isolated two types of trajectories to describe *immobility*: settlement (no transition) and direct remigration (one transition). The first represents an absence of mobility in the destination country, and the second represents definitive remigration with no other movement during the observation period. In total, we obtained 14 clusters (1-14): 2 types of immobility (settlement and direct remigration) and 12 clusters representing more mobile trajectories. We identified the 12 mobile trajectories, using the clusters’ partition with the highest quality, according to Hubert’s Gamma, Hubert’s Somers’ D, and Hubert’s C measures (Studer, 2013). To reduce complexity in the multivariate analyses, we aggregated the 14 clusters into 6 migration experiences (A-F).
Predicting Migration Trajectories using Multinomial Logistic Regression

After establishing different migration trajectories, we examine which migration experiences are associated with specific sociodemographic characteristics. We focus on nationality groups because citizenship determines whether an immigrant has access to the EU free movement of persons. We also consider how citizenship interacts with migration cohorts, using a multinomial logistic regression model. The outcome variable measures 6 different migration experiences. As predictor variables, we use nationality groups (Germany, Portugal, France, Italy, other EU17, other EU8, other Europe, North America, Latin America, Africa, Asia/Oceania), immigration cohort (1998, 2003, 2008), age (6 age groups), sex (men, women), and marital status (single, married, divorced/widowed). To test how nationality’s statistical effects evolved over time, we added an interaction term between nationality and immigration cohort. To ease interpretation, we present the results graphically as predicted probabilities of belonging to a specific migration experience. We present the results for nationality and immigration cohorts; all other variables are fixed at age group 25-34, female sex, and single marital status. Data preparation and all analyses were performed, using R (R Core Team, 2015) and the TraMineR package for sequence analyses (Gabadinho et al., 2011).

Results: Most Immigrants Stay for a Short Period

Figure 3 presents a cross-sectional representation of the state sequences during the 60 observation months. This visualization shows the share of individuals in a state at a given time. We can see that the time spent abroad represents an important proportion of the total (44%), indicating that these immigrant cohorts lived in Switzerland for an average of 2.8 years over the 5 years of observation. At the end of the observation period, 54% of immigrants had left Switzerland. At the same time, at the end of the observation period, 29% of immigrants had moved neither internally nor internationally and had lived in the same place where they first arrived (experience A settlement). The share of immobile individuals decreased quickly in the first year after arrival and then decreased more slowly as the mobility dynamics were established. Furthermore, the time lived in Switzerland in mobile statuses represents 13% of the total time spent. Internal movers were almost as numerous as international ones, while we observed few immigrants who moved both internally and internationally.
FIGURE 3: Cross-sectional distribution of the migration trajectories of the immigration cohorts 1998, 2003 and 2008, Switzerland

Guide: One month after arrival, most immigrants still lived in the same place where they arrived (yellow); a few had moved to another place in Switzerland (red, internal move), and some had left the country again (blue). As we move to the right in the figure, more time since first arriving in Switzerland, the share of immigrants still living in the same place they arrived (yellow) declines.

Data: Swiss Longitudinal Demographic Dataset, ZAR and STATPOP.

Immigrants do not necessarily settle immediately and can move within the country before settling. Migration experience B internal mobility (9%) characterizes individuals who ultimately settled in Switzerland but first underwent 1 to 8 internal relocation(s). Internal relocation in our case refers to moving to another Swiss economic area and may reflect the desire for a better, more stable situation in another place or a stepwise strategy (Paul, 2011). The most common migration experience we observe is remigration (43% of trajectories, C remigration). Of those who remigrated, almost all remigrated directly (C1, 42%), while a much smaller group moved within Switzerland before emigrating (C2, 1%). The majority stayed in Switzerland for only a short period. After one year, 66% of this group had left the country; after 2 years, 82% had left. A rather surprising type of multiple migration appears as the fourth migration experience (D reimmigration). Approximately 3% of all trajectories – more than 10,000 individuals in the selected cohorts – were involved a second immigration before settling down: they arrived in Switzerland, left the country, and came once again. This second arrival in Switzerland generally occurred within 6 months after departure. We can distinguish cluster D2 from cluster D1 by (repeated) internal movement(s) after the second arrival. Migration experience D may describe immigrants who had difficulty settling directly.
Figure 5 shows that the stereotypically highly mobile immigrant (c.f., Favell 2011, Toma and Castagnone, 2015) is a relatively rare species in Switzerland. We can classify approximately 15% of trajectories as international circulation (E), which consists of seven different types of circulation. We observe regular seasonal migration (E1 with repeated stays of approximately 4 months followed by 2 months abroad, E2 with repeated stays of approximately 8 months followed by 4 months abroad), as well as less predictable trajectories. Migrants in clusters E3 and E4 underwent 3 to 4 yearly seasonal migrations (8 months in Switzerland), with the former tending to settle in Switzerland and the latter tending to stay abroad. In cluster E5, settlement
occurred after two seasonal movements. The last two clusters of circulation show multiple short stays in Switzerland (E6), with a mean time of less than one year or several international movements ending in settlement (E7). We can describe approximately 3% of trajectories as ultramobile (F high mobility), both internationally and internally. The 1,100 concerned individuals moved on average 4.8 times internationally and 9.8 times internally, but over time, the moves became less frequent. A total of 83% were still in Switzerland at the end of the observation period.
FIGURE 5: Longitudinal sequences of migration, clusters E and F

Data: Swiss Longitudinal Demographic Dataset, ZAR and STATPOP
**Results: No Evidence of Increasing Mobility, 1998 to 2008**

Between 1998 and 2008, we observe a substantial change in migration experiences. Figure 6 shows a clear increase in trajectories resulting in settlement (A settlement, B internal mobility). The share of migration trajectories leading to remigration was relatively stable over time (C). It appears that the financial crisis increased the more stable trajectories, probably because of economic difficulties in most origin countries or potential onward countries (Castles and Miller, 2010). At the same time, we observe less international circulation over time. All the experiences that imply several international movements (D-F) decreased in importance between the 1998 and 2008 cohorts, especially for international circulation (E). While 25% of the 1998 immigrant cohort followed this trajectory, only 8% of the 2008 cohort did so. The larger decrease between 1998 and 2003 coincides with the abolishment of Switzerland’s guest-worker policy, which was based on a rotating low-qualified workforce (Piguet, 2017). With this policy change, circulation became less important numerically in its seasonal form. It appears that efforts to encourage highly skilled workers’ circular migration in recent years (Skeldon, 2012) have failed to replace this form of migration. Thus, we find no evidence for increasing mobility over time.

**FIGURE 6: Conditional distribution of the clusters of migration by cohort, in percentages**

Note: Bars add up to 100% for each cohort.
Data: Swiss Longitudinal Demographic Dataset, ZAR and STATPOP

**Results: Individual Characteristics Associated with Different Types of Mobility**

When analyzing the characteristics associated with each migration experience, we observe some clear profiles and tendencies (Table 2 and Figure 7). Broadly, we find higher tendencies to settle or move internally for women, children, and married, divorced, or widowed individuals...
(experiences A and B). Men and single individuals are more likely to undergo at least one emigration (C) that might also be followed by one or several renewed immigrations to Switzerland (D, E). Exceptions are the high-mobility trajectories, which mainly concern women (F). Regarding origin, we observe an overrepresentation of non-EU/EFTA citizens in the settlement (A) and high-mobility (F) experiences, while EU/EFTA citizens follow reimmigration (D) and international circulation (E) trajectories more often.

**TABLE 2: Distribution of cohort, sex, age, civil status and citizenship for each migration experience, with significant under- and over-representations in blue and red by cluster**

<table>
<thead>
<tr>
<th></th>
<th>A: Settlement</th>
<th>B: Internal mobility</th>
<th>C: Reemigration</th>
<th>D: Reimmigration</th>
<th>E: International circulation</th>
<th>F: High mobility</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Sex</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>52%</td>
<td>46%</td>
<td>40%</td>
<td>43%</td>
<td>36%</td>
<td>97%</td>
<td>44%</td>
</tr>
<tr>
<td>Male</td>
<td>48%</td>
<td>54%</td>
<td>60%</td>
<td>57%</td>
<td>64%</td>
<td>3%</td>
<td>56%</td>
</tr>
<tr>
<td><strong>Age group</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0-17</td>
<td>21%</td>
<td>12%</td>
<td>9%</td>
<td>6%</td>
<td>3%</td>
<td>0%</td>
<td>12%</td>
</tr>
<tr>
<td>18-24</td>
<td>17%</td>
<td>19%</td>
<td>30%</td>
<td>28%</td>
<td>31%</td>
<td>45%</td>
<td>25%</td>
</tr>
<tr>
<td>25-34</td>
<td>32%</td>
<td>41%</td>
<td>36%</td>
<td>43%</td>
<td>38%</td>
<td>52%</td>
<td>36%</td>
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<tr>
<td>35-44</td>
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<td>17%</td>
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<tr>
<td>45-64</td>
<td>10%</td>
<td>9%</td>
<td>10%</td>
<td>7%</td>
<td>11%</td>
<td>0%</td>
<td>10%</td>
</tr>
<tr>
<td>65+</td>
<td>1%</td>
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<td><strong>Civil status</strong></td>
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<tr>
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<td>24%</td>
<td>26%</td>
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<tr>
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<td>Africa</td>
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<tr>
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<td>20%</td>
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<td>56%</td>
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<tr>
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<tr>
<td>2008</td>
<td>45%</td>
<td>53%</td>
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<td>32%</td>
<td>19%</td>
<td>7%</td>
<td>38%</td>
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<tr>
<td><strong>Total (n)</strong></td>
<td>90,728</td>
<td>28,733</td>
<td>137,675</td>
<td>10,013</td>
<td>48,311</td>
<td>1,139</td>
<td>316,599</td>
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<td><strong>Total (%)</strong></td>
<td>28.7%</td>
<td>9.1%</td>
<td>43.5%</td>
<td>3.2%</td>
<td>15.3%</td>
<td>0.4%</td>
<td>100.0%</td>
</tr>
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</table>

| **Legend**        |               |                      |                 |                  |                               |                 |       |
| Overrepresented sub-population in the cluster (p<0.05) | |                     |                  |                               |                 |       |
| Underrepresented sub-population in the cluster (p<0.05) | |                     |                  |                               |                 |       |
| No significant difference | |                     |                  |                               |                 |       |

Data: Swiss Longitudinal Demographic Dataset, ZAR and STATPOP
Immigrants with family ties settle more often. We find that married people, those aged 35 to 44, those with children, and women are more likely to settle, as are retired people (experience A). Similarly, immigrants from non-EU/EFTA countries – in particular, Turks and immigrants from Balkan countries (category ‘other Europe’), Latin Americans, and Africans – are more likely to settle. Increased likelihood of settling for these groups makes intuitive sense, since without citizenship from an EU/EFTA country, their access to onward migration is legally restricted. Moreover, due to precarious economic conditions in the origin country, ambitions to return may be lower. The 2008 economic crisis is associated with the increasing importance of settlement among the 2008 immigrant cohort (Figure 7). We also find an overrepresentation of Portuguese immigrants, consistent with Portugal’s economic context but contradicting studies that suggest high aspirations to return (Ruedin, 2018). With a lower average education level, however, these immigrants may have lower capabilities for international or internal moves.

The characteristics of individuals who moved internally before settling down (experience B) are similar to those in the first cluster, reflecting family migration (overrepresentation of individuals who were aged 25-44 years, married, and female). Trajectories involving multiple internal movements, however, are rare among children (age 0 to 17). German immigrants represent more than 37% of the B cluster. As shown by Steiner (2014), recent German immigrants to Switzerland tend to first settle close to the German border or in economic centers. Typically highly educated, these immigrants tend to have greater capabilities to take up better opportunities in another Swiss economic area. In contrast to EU/EFTA immigrants, internal movements of other Europeans and Africans decreased between 1998 and 2008 (Figure 7), a finding which could indicate that it became more difficult for certain groups to relocate internally over the study period, perhaps due to lower socioeconomic status and more vulnerable situations associated with the 2008 economic crisis.

For remigrants (experience C), we observe a clear overrepresentation of men, single people, and either young individuals (18-24 years) – probably students – or the preretirement group (45-64 years). Since remigration can be a consequence of success or failure of the migration project or a preconceived objective, various origin groups are concerned: immigrants from EU/EFTA countries, except Italians and Portuguese, as well as immigrants from North America and Asia/Oceania (compare Hercog and Siddiqui (2014)). Reimmigrants (experience D), by contrast, show the least distinct profile compared to the total immigrant population under study. This type of migration is characterized by young individuals (18-34 years) and single people. Additionally, German and Portuguese individuals, as well as Latin Americans, are overrepresented, which may indicate specific labor-market niches for these immigrants.

In direct contrast to family-related settlement, circulating and highly mobile immigrants tend to be single. For international circulation (experience E), we observe a slight overrepresentation of men, single people, and all working-age groups. Cluster E is the only migration experience that shows a decreasing trend for all origins between 1998 and 2008 (Figure 7). Highly mobile migrants (experience F) comprise a clearly defined population that is normally considered vulnerable: young (18-34 years), single women from Eastern Europe, Latin America, or Africa. Moreover, 97% of these highly mobile migrants entered Switzerland with a permit for dancers or artists on their first arrival. This permit was introduced in 1995 and considered an exception for the admission of unqualified workers from third countries, allowing for international circulation and a maximum residence in Switzerland of 8 months (Thiévent, 2015). Cabaret dancers’ internal circulation is driven by an employment structure that enforces their rotation between establishments (Thiévent, 2015). It is worth mentioning, however, that only 12% of cabaret dancers (N=9,600) are in the highly mobile group (F), while 39% are one-time and direct emigrants (C1) and 38% moved several times internationally before returning (D6).
FIGURE 7: Probability predictions of belonging to a cluster, from a multinomial logistic model with an interaction between the immigration cohort and nationalities

Note: The multinomial model includes an interaction between nationality and cohort and it controls for sex, age and marital status. The reference profile is a single woman, aged 25 to 34 years.
Data: Swiss Longitudinal Demographic Dataset, ZAR and STATPOP.

Discussion and Conclusion

In this article, we set out a first exhaustive overview of contemporary migration trajectories in Switzerland to better understand and enumerate the different forms of migration in a context where free movement is a legal possibility for large parts of the population. Using longitudinal sequence analysis on linked register data, we demonstrated that many different forms of multiple migrations exist, leading to diverse migration trajectories. None of the migration trajectories we identified dominated. Relatively few immigrants belonged to the hypermobile immigrant class highlighted by researchers behind the ‘mobility turn’ (Sheller and Urry, 2006), but we could identify different trajectories leading to settlement or return to the origin country.
within 3 to 5 years. Among three immigration cohorts (1998, 2003, 2008), we found no evidence of increasing mobility.

The complexity of migration trajectories in which many immigrants move multiple times is consistent with narratives of immigrants using their agency to shape migration (Baas, 2017; Söderström et al., 2013). Movement in general, whether internal or international, is a reaction to changing circumstances, as highlighted by attempts to reconcile migration and mobility research (Söderström et al., 2013). Using a quantitative approach, our results support qualitative and theoretical work suggesting that similar processes shape internal and international migration, as well as short-term and long-term migration (Brettell and Hollifield, 2008). For that reason, it makes sense to study international and internal movements together (King and Skeldon, 2010). However, the diversity of migration trajectories means that it would be wrong to completely abandon the distinction between ‘migration’ and ‘mobility’. Instead, we may want to regard ‘migration’ and ‘mobility’ as endpoints of a continuum describing many different migration trajectories (Steiner and Wanner, 2019), from direct settlement to high mobility.

The results of our sequence analysis demonstrate that migration does not always end when a person enters a country but instead can be followed by movement within the country as well as intermittent moves abroad. At the same time, because we could enumerate the relative importance of different trajectories, it became clear that we should not overstate immigrants’ actual mobility. As we demonstrated, most immigrants are involved in only one international or internal move. By focusing on different migration trajectories, we tried to emphasize that these results – finding movement and settlement at the same time – are not so contradictory as they may appear at first but instead reflect a diverse universe of migration experiences. This diversity of migration experiences is not adequately reflected in contemporary political debates and policymaking (Van der Brug et al., 2015), perhaps because we as migration researchers have not paid sufficient attention to it.

In addition to presenting and enumerating different migration trajectories, our longitudinal analysis allowed us to demonstrate that multiple migrations can change over time, due to individual and contextual factors. Although individual characteristics, personal choices, or openness to migrate drives each micro-sequence (Huininik et al., 2014), structural constraints also shape migration trajectories. For instance, in the absence of free movement rights and with lower social, financial, and human capital, many non-EU/EFTA citizens do not have the same agency and capabilities to choose mobile migration trajectories as EU/EFTA citizens and are pushed toward immobility and settlement (see Borodak and Tichit, (2014), Massey, Durand, and Pren (2014, 2016)). Future research is, thus, needed to understand this interaction between individual agency and structural constraints: how individual immigrants cope with the constraints, but also how they affect migration flows.

The changes in migration trajectories across immigration cohorts reflect institutional and economic change. In the Swiss case, the high demand for low-skilled workers in the 1960s led to the establishment of a political model with seasonal guest workers from Southern Europe (Piguet, 2017). The guest-worker model was replaced by the free movement of EU/EFTA citizens in participating countries in 2002. Interestingly, we can see that when low-skilled Southern European workers had the freedom to choose their migration trajectories, they chose stability and settlement, instead of (guest-worker) mobility. Stated differently, the free movement policies that encourage mobility have paradoxically led to an increase in immobility among low-skilled immigrants who had been involuntarily mobile in the past, and enabled highly skilled immigrants to be mobile and meet economic demands in Switzerland.

By highlighting different migration trajectories and their changes over time, we call upon fellow researchers and policymakers to acknowledge the diversity of experiences today rather than assume homogenous migration – be this permanent settlement as assumed by many
policymakers, or hypermobility suggested by the ‘mobility turn’. Policies need to cater for different needs stemming from this diversity in trajectories and experiences. Using multinomial regression analysis, we highlight that we cannot capture the diversity of migration flows by relying on nation-states for defining migrant groups. While immigrants from some origin countries tend to choose trajectories that are in line with legal constraints and different migration motives (e.g., seasonal guest workers from Italy or Portugal or the remigration patterns of North Americans) for all origin countries, we observed very diverse migration patterns. We proposed a typology of migration experiences to better capture the diverse reality of migration, thus addressing King’s observation (2012) that immigrants cannot adequately be characterized using three distinct categories (temporary labor immigrants, settler immigrants, and refugees).

With a reliance on register data, the analysis in this article necessarily focuses on the distinction between the country under study (Switzerland) and countries abroad. As a result of the data used, we could not follow immigrants abroad or consider possible movements that occurred during their time outside Switzerland. Future research should find ways to incorporate movements abroad, which may lead to refined migration trajectories. One way to do so may be to link register data across countries, as is possible in some Nordic countries (Weber and Saarela, 2017). Further research is also necessary to extend the scope of multiple migrations over time, since, for instance, what appears to be permanent settlement in our analysis may actually be long-term residence.

While register data offer comprehensive coverage, they tend to be limited in the kind of variables available, focusing on demographic information and formal citizenship. In particular, we expect that differences in human capital influence selection into different migration trajectories and that such differences may interact with migration policies. While highly mobile immigrants exist, the provision of free movement has not led to hypermobility across the board, as some may claim (Sheller and Urry, 2006). In fact, many kinds of trajectories and multiple migrations co-exist, and we need to acknowledge this diversity to adequately treat contemporary migration.

Acknowledgments

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References


