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Life Course Patterns of Female Migrants in Germany:

The Interplay of Employment and Fertility Trajectories Around Arrival

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Abstract

International migrants commonly move in their 20s, and, thus, at an age that is critical for both their employment and family formation careers. While male migrants predominantly move for employment and therefore show high labor market participation rates after arrival, women are more likely to arrive as part of a family unit and their labor market participation tends to be low. This paper illustrates the interrelation of migrant women's employment and family formation biographies. It draws on data from the German Socio Economic Panel. The analytical sample includes women who have migrated to Germany between 1990-2010. We employ sequence analysis to map employment and family formation trajectories in the corridor 3 years before and 6 years after migration. By means of cluster analysis, we identified five predominant employment trajectories. We illustrate that "non-employment trajectories" are closely related to family formation behavior of women. Furthermore, third country nationals (TCN) are very likely to follow extended non-employment spells after arrival. This lack of contact with the labor market tends to be paralleled by parental responsibilities, as these women often experience the transition to a first or a higher order birth around migration. We follow and visualize migrant women's parallel employment and family formation biographies around their time of migration to Germany. In this manner, we study how different channels of migration interrelate with different life course patterns. Furthermore, we identify that family formation transitions around migration are highly related to an interruption in women's employment histories and long non-employment spells in the first years after arrival.

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1 Introduction

Studying the employment behavior of migrant women has always been more complex than of migrant men. Men commonly move for employment reasons, so that the progressions of their careers will most likely be an accumulation of experience over time (Chiswick 1978). Women's employment careers are not as linear, as family formation commonly slows down or even stops the accumulation of experience and career advancement (Budig 2003, Cramer 1980). Long labor market interruptions are penalized, and the inability to integrate into the labor market after childbirth means a state of economic dependence from a male breadwinner. The 'feminization' of migration is a widely studied topic in migration studies, which addresses how migration flows of women are on the rise (Herrera 2013, Donatto & Gabaccia 2015, Boyd & Grieco 2013, Lutz 2010, Pedraza 1991 , Morokvasic 1984). Albeit that a growing share of women migrate independently or as pioneers, a large fraction of women migrate as part of a household and most commonly as "tied movers" (Kofman 2012; Kofman & Raghuram 2015). Scholars have pointed out that migrant women's low employment rates can be attributed to their employment careers often being subordinate to that of the male "prime mover" (Bielby Bielby 1992, Boyle et al. 2003). Demographic studies have also documented an interrelation between family formation and migration, as migration and marriage are commonly interrelated events. Birth rates have been shown to peak after migration (Ortensi 2015, Milewsky 2007, Kulu 2005, Robards et al. 2015). The long-term effects of the close coupling of childbirth, marriage and migration for women's employment careers has only rarely been addressed (Anderson Scott 2005, Cooke 2001, Kleinpier at al. 2015). Only few studies have looked at the interrelation between employment and fertility behavior of migrants (Lundtrstöm and Andersson 2012, Kil 2017, Cooke 2001). We contribute to the literature by focusing on the German context and by examining how fertility transitions around migration relate to women's employment trajectories in the first six years of arrival.

In Germany, like in other western countries, the legal possibilities to enter the country vary by country of origin, citizenship, skills set and marital ties to the resident population. Germany has implemented, for example, migration policies to attract high skilled employees, e.g. through the BLUE-card theme. In the case of women, a large proportion of TCN are known to migrate under the legal status of family reunification (Destatis 2018, Grote 2017). So from a legal perspective we can say TCN women are more likely to move for family reasons than for employment reasons – in practice the picture might differ, especially because migrants might have multiple reasons to move. Conversely, EU citizens or Ethnic German migrants do not need special skills, nor family ties to migrate to Germany. Migration policies, and thus differences in the levels of restriction to migrate, shape the socio-demographic characteristics of

the migrants. Women, who move as family migrants, will have different levels of experience, preparation and preferences for fertility and employment, in contrast to women who move on other legal grounds.

In this paper, by means of sequence analysis, we will study, simultaneously, the employment and family formation behavior of female migrants around their time of arrival in Germany. By identifying ideal types of employment trajectories we examine how different employment biographies correspond to different patterns in family formation around the time of migration. In particular we focus on how patterns differ by country of origin and discuss how TCN, who might face higher barriers to enter the labor market are also the most prone to have birth transitions around migration.

2 German Context: Migration Channels, Origin and Employment

In international migration, the migration decision and possibility of employment at arrival is largely selective on the available legal channels to migrate (White 2016, Massey 1999, Mincey 1978). In Germany, as in the most other countries, the channels of migration are particularly restrictive for third country nationals (TCN). Conversely, migrants from EU-countries have benefitted from the freedom of movement regulation. Women from this region were never restricted for the labor market as they were allowed to enter all types of employment without labor market testing, which applies to foreign nationals. Another group of immigrants who have also enjoyed full migration openness and employment permission, due to their heritage origin were Ethnic Germans, mostly coming from Central and Eastern European countries (OECD, 2007, Bade & Oltmer 2007). Other Central and Eastern Europeans as well as women from Africa and the Middle East and other TCN nationalities were faced with more restricted migration possibilities. Those moving as third country nationals have limited channels restricted to asylum/refugee, family reunification, continuing education or a fixed pre-migration established employment contract, with more liberal conditions for highly skilled sector and some possibilities of temporal employment for low skilled. Most women from third countries migrate on the legal basis of "family reunion" (Destatis 2018, Grote 2017).

Apart from different migration channels, employment regulations also differ by migrant subgroups. Until 2005, the restricted migration channels meant more restricted employment polices after arrival. Asylum seekers who were not covered by the Geneva Convention, for example, were not allowed to work for many years after arrival. The same applied to "family migrants" who migrated to foreign partners. It is only since 2005 that they have immediate access to the labor market after migration (Liebig 2007).

3 Migration, Female Employment and Family

Migration is conceptualized as a household decision (Stark 1991). While traditionally male migrants have been known to move under a status linked to their employment, women more often move on the grounds of family reunion (Boyd & Grieco 2013, Mincer 1978). A detrimental effect of migration on the employment of female migrants has been especially documented and theorized in relation to married women. Due to the internal earning capacities within the households, migration tends to shift families into traditional gender roles, where women tend to be 'tied movers' while their husbands earns the household income (Mincer 1987, Cooke 2008, 2008b). Some studies have, however, shown that some of these paradigms are changing, and in the case of dual earner couples the power balance regarding the migration decision has increased (Smits, Mulder & Hooinmeijer 2004). In some cases it is high skilled women have their own agency and seek the migration decision (Kõu, & Bailey 2014, Hiller & McCaig 2007). In cases of households with children, women's capacities to work outside the household might be impaired depending the family formation stage they are in. For example a study on long distance migration within the USA found women's employment is mostly affected by their parental status after migrating, it was mostly women who became mothers after migration who showed low participation (Cooke 2001). Care arrangements are known to be a struggle for migrant families who do not have close family to rely on, so this might be a limitation for women's working possibilities (Bonizoni 2014). The extent, to which motherhood limits migrant women's employment, might however, be largely related to context. In Sweden, a universalistic welfare regime, an inverse relation was found regarding transitions into parenthood and employment. When investigating the group of women who became mothers after migration, they found this transition was largely coupled by permanent employment, meaning that they already had a place in the labor market to return to once they finished the period of parental leave (Lundström, K. E., & Andersson, G. 2012).

This relation between migration and family formation has been widely studied in demographic and sociological literature (Wolf 2016, Kreyenfeld & Krapf 2017, Milewski 2010, Schmidt & Kohls 2010, Mussino et al. 2015, Mussino & Stroza 2012). Migration and marriage have been shown to be commonly synchronized events among certain types of female migrants (Mulder and Wagner 1993, Kulu & Gonzales-Ferrer 2014, Wilson 2013, Robards & Berrington 2016). In these studies, it has been shown that fertility rates of international migrants commonly peak around migration. This pattern has been typified as 'interrelation-of-events'. For women who migrate for marriage, to follow or to (re)unite with their partner, the anticipation of moving might mean low rates of fertility before the move. Then, when they finally arrive at a stable environment, a transition to parenthood or further parities after arrival could mean they are 'catching up' for the lost 'births' before migration. Furthermore, for those who first

consolidate their relationship in relation to the migration event, an interrelation of the events of marriage and migration can largely explain high first birth propensities at arrival (Kulu 2005). A hypothesis that predicts an opposing behavior of low fertility after arrival is the 'disruption' hypothesis. This could be the case more for migrants who lead the household decision to migrate or move as pioneers or independently for employment. Migration for them could be rather a stressful event, and the time and resources thereafter are invested in integration and settling, so therefore fertility transitions are postponed right after the time of migration (Kulu 2005; Milewski 2007).

Considering these previously recognized moving and fertility patterns, and knowing the damping effect caring for small children can have on a woman's employment participation in this paper we want to investigate (1) how female migrant employment and fertility biographies interrelate around migration; (2) how patterns around migration differ between TCN, who face higher restrictions to migrate and work in contrast to EU-migrants and Ethnic Germans.

4 Data, Method and Variables

Data for this analysis comes from the 2016 German Socio Economic Panel (GSOEP). Aside from the skill composition at migration, the GSOEP includes rich retrospective information migration, employment, couple and birth histories. The original sample of first generation migrants consists of 25,333 migrants who arrived between 1950 and 2016, at all ages. As we restrict our analysis to female migrants who arrived between 1990-2010, at ages 18-49, and for whom we have complete employment, birth and couple histories we are left with 1547 women.

As a method, we employ sequence analysis. We use optimal matching to find ideal types of employment biographies around migration (Lesnard 2006). Then we visualize the family formation behavior correspondent to each cluster and use a multinomial logit to understand cluster affiliation, distinguishing between different origins, types of migration patterns and family formation behaviors around migration (Aisenbrey & Fasang 2017, Abott & Tsay 2000, Kleinepier, de Valk & van Gaalen 2015). The (main) process time is the time around migration. The retrospective nature of the histories allow us to look at yearly employment, couple and birth biographies for 10 years around migration time: from 3 years before to 6 years after migration. In this way we can visualize how different patterns of employment before migration relate to the patterns of employment after migration. We distinguish between 4 possible different employment states: full time, part time, non-employment and education. To cluster we have used a ward method as a hierarchical clustering algorithm, which has as an aim to reduce residual variance and to evaluate the best possible clustering solution (Studer 2013).

For the analysis of cluster affiliation, our first main variables of interest are (1) *partnership patterns around migration,* considering the partnership status and living arrangements one year before and one year after migration we classify migrants as

(a) Single before and after migration

(b) Living together before and after migration

(c) United the year after migration

(d) Other – including those who separated or live separate after migration

Our second variable of interest is related to (2) *having children or childbearing around migration*, here we distinguish between

(a) Childless before and 2 years after migration

(b) Childless before migration who transition to parenthood in the first 2 years after migration

(c) Parents who transition to further parities 2 years after migration

(d) Parents who do not transition to further parities 2 years after migration

Another key variable of interest is the *region of origin*, given the German migration context described above we have grouped migrants by different origins who face different restrictions for migration and employment in Germany, the categories are

(a) Ethnic Germans, with no restriction

(b) Western and Southern Europe, with no restrictions

(c) Eastern and Central Europe with high restrictions

(d) Africa and Middle East also with high restrictions

(e) Others who face mostly high restrictions

As further controls, we consider age at migration, level of education, and period of migration.

5 Results

5.1 Descriptive Results

With an average silhouette width of .38, Figure 1a shows the best, 5-group cluster solution of female employment participation patterns, displayed as sequence index plots (Gabandinho et al. 2011). The first cluster includes women who are mostly employed full time for the period of observation, although some

were in education before migration, they are in full time employment after arrival, these women represent one fourth of the whole sample of women. The second cluster, which is somewhat smaller (15%), consists of women who present various part time spells after migration. Around half were in full time employment before migration but did not sustain this behavior after arrival. The third cluster, are women who were in education before migration and after migration (13%), and for whom we can see later a mix o employment and non employment spells. The forth cluster (20%), are women who were in full time employment before migration but who do not work after arrival, showing how the event of migration is also a break in their employment career. The final cluster, which is the largest (26%), consists of women who were not employed before nor after migration in the observed window. In total we can see more than 46% of all female migrants are not employed in the first 6 years after their arrival in Germany.

[Figures 1a]

In Figure 1b we can see the corresponding childbearing patterns for each of the employment cluster as frequence plots (Fasang & Liao 2014). For the full time employment cluster we can see only around 50% of the women are already mothers at migration and more than half of those who have children, have school aged children or older. Only after 4 years in Germany some of these women show some childbearing transitions. The second cluster, of women who are in the part time, are more likely to be mothers at migration than the previous cluster and at least half of them have preschool children in the year after arrival. For the cluster of women who are in education, most are childless around migration and remain childless the first couple of years, but around 50% have a child sometime in the 6 years after migration. Finally, the clusters of women who are not working after migration (4 + 5) , show the highest incidence in childbearing transitions around migration time, while only around 40% of the women had a child before migration in the second year after migration around 80% had a first birth transition and the incidences of 2nd and 3rd births are around 20%. Six years after migration at least 95% non-employed women have a child.

[Figures 1b]

5.2 Multivariate Results

Figure 2 displays the average predicted probabilities from the multinomial logistic model employed to analyze cluster affiliation.

Ethnic German women and Southern or Western European women show the highest probabilities of being in a cluster of employment spells, especially in full time employment. In comparison to other origins they

also have a high probability of being in the education cluster. Third country nationals show in contrast a high probability of ending in a non employment cluster. This is particularly the case of African and Middle Eastern women of which around 70% are in a non-employment cluster, and this can be related to lack of work experience, as already 50% were not working for the 3 years before migration. The interruption of the employment career around migration seems, however, less related to origin than in the case of taking on employment, all ethnic Germans, Central and Eastern European women and African and Middle Eastern women show the same probabilities of being in the cluster of women who stop working after migration.

The period of migration does not seem to linearly define the employment trajectories of migrant women. Women after 2005 do show higher probabilities of following a path of employment after migration in comparison to those who arrived in the period 2000-2005, but they do not seem to differ to the patterns of women who migrated between 1990-1999.

The age at which a woman arrives, which can be highly related to the family formation stage they are in at the moment of migration, also seems to be highly defining of the paths women take after arrival. The youngest women 18-20 are either likely to be in the education cluster or the always non-working cluster. Meaning that family formation stages at that point in the life course for young women migrants can highly define their (non) employment career. Generally the older women are at migration, the higher the probability that they will be in the full time employment after migration. On the other hand, we can also see women who move older than 26, also have a high probability of interrupting their employment biographies around migration.

As with age at migration, there is also a gradient between the level of education and the uptake of full time employment. Those women who are more educated are also more probably in a fulltime employment paths around migration. There is also a relation between low education and being on a non-employment path for the whole period observed. However, women from every level of education seem to have the same probability of interrupting their employment careers at the time of migration.

The migration pattern, as expected, makes a difference in women's employment patterns. Single women have the highest probabilities of being in paths of full time employment or education in contrast to women who move with a partner. For those women who move together with their partner they show around a 50% probability of following a non-employment path after migration. Within those who do not work after migration, those who move together with their partner are more likely to already not be employed before migration, while those who where reunited with their partners were more likely to be interrupting their employment career through migration. As we can see from the birth histories, these differential migration patterns are also related to women moving at different family formation stages in

their life course. Having a first birth around migration does not seem to be directly related to having been employed in the years before migration, but it does mean a lot of these women (70%) are out of the labor market the first 6 years after migration. As for women who have higher parity births after migration, they were already most likely to be out of the labor market the years before migrating. In the case of women who show no birth transitions around migration, they are also more likely to be in paths of employment after migration; in the case of mothers, they are more likely than other groups to be in part time paths.

[Figures 2]

6 Discussion and Limitations

This study has identified five ideal types of employment trajectories of female migrants who arrived to Germany between 1990 and 2010. More than 46% of the women of our sample were predominantly non-employed for the first 5-6 years after arrival. We have seen, women who are having family formation transitions around migration are also the ones to most probably follow these patterns of non-employment after migration. For a large proportion of these non-employed women, migration is an event that seems to interrupt their employment biographies, and in parallel a time where they are consolidating their partnerships. Before migration many were in employment, but at migration they are likely to unite or move with their partner and rather focus on the family formation domain either with a first birth transition or higher parities. This means they are probably caring for small children while they are out of the labor market in the first years after arrival. For those who unite with their partner and have a first birth at arrival, the behavior could be identified with the fertility hypothesis of interrelation of events around migration; these women could be moving to an established environment where they can reproduce and do not have employment as a priority. Those women, who already were mothers at migration, show an employment behavior that also varies depending on their fertility behavior. Those who show further parity transitions were most probably already disconnected from the labor market in the years before they migration, while 50% who do not show any further family transitions are in the labor market at least in part time employment.

As expected, differences in employment biographies, and therefor in fertility biographies are also prevalent by origin. While ethnic Germans and Western or Southern European women are most likely to follow paths of employment or education after migration, TCN are more likely to be in non-employment paths. The differences are especially pronounced in the case of African and Middle Eastern women, who only show a 25% probability of being in an employment path after migration. Many are in the cluster of women who were ‘always non-employed’, these patterns that related to first or higher parity births after migration, and from we can see from the family patterns they do seem to have few transitions before

migration, but the years after migration there are steep jumps. In the case of ethnic Germans and Western or Southern European, the employment patterns that they most probably follow, are also paralleled by comparatively fewer transitions in the family formation domain. Their behavior could be then related to the "disruption" hypothesis of migration, where women postpone their fertility after migration, as they concentrate their time resources to first integrate into the labor market.

All in all, we have seen that the tempo hypothesis on the fertility behavior of international migrants can be helpful to typify certain parallel fertility and employment paths that are followed by migrant women in Germany. In general, family transition events around migration are largely paralleled by low labor market participation in the first years of arrival and contrariwise patterns of employment or education are paralleled by few transitions in the family domain. Women from different origins have also been seen to tend to follow different employment biographies around migration. TCN are more likely to select themselves through family migration channels and are in a large proportion represented amongst the women who show 6 year non-working biographies after migration; paths, which are likely to be paralleled by family formation transitions around migration. Having children could be the natural behavior related to migration being part of a family formation sequence, and this is apparent in the case of women who are uniting their partners through migration. Nevertheless, some first and further parity transitions could also be a consequence of the difficulties women face at arrival to enter the labor market (Friedmann et al. 1994). Although our analysis does not show that women after 2005 have a much larger chance of being in an employment path than before 1999, it is mostly women who have low education or no work experience the years before migration who tend to show solid non employment patterns at arrival. This could be a social policy concern, in segmented labor markets, such as the German one. Regardless of the human capital endowment at arrival, being out of the labor market for a long period of time can signify a devaluation of education or employment credentials and therefor-higher barriers to enter employment in the future. Low labor market participation might later on signify high dependence on their partners and in some cases the state.

Visualizing the employment patterns at migration along with the cluster affiliation has been useful to understand how family formation events affect the employment participation of many women at arrival. We have also been able to see how selectivity of migrants by their origin and therefor the restrictions they face at arrival play out to determine the employment life courses of migrants after arrival. We however still face various limitations with this study. To start we are observing reported yearly histories and we have selected employment over other possible yearly state, which means we are overestimating the employment participation of migrants in general. Also, although clear patterns after migration show how 'sticky' employment or non-employment patterns can be after arrival, as transitions out or in to

employment do not look very common after the first years of arrival we are still only observing the first 6 years after arrival, meaning that with this method we are not able to see how the life courses of those migrants who are initially in or out of the labor market unfold in posterior years. In any case 6 years is still a significant amount of time when it comes to human capital endowment, and many of these migrants arrive at critical ages in their employment careers, therefor better opportunities for the labor market at arrival could also signify better economic prospects for migrant families in Germany that is everyday becoming more a double earner society.

7 References

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8 Tables and Figures

Figure 1a. Sequence index plots, employment biographies, Cluster solution, ASW=.38, -3 to 6 years around migration (priority in case of simultaneous annual spells to employment)

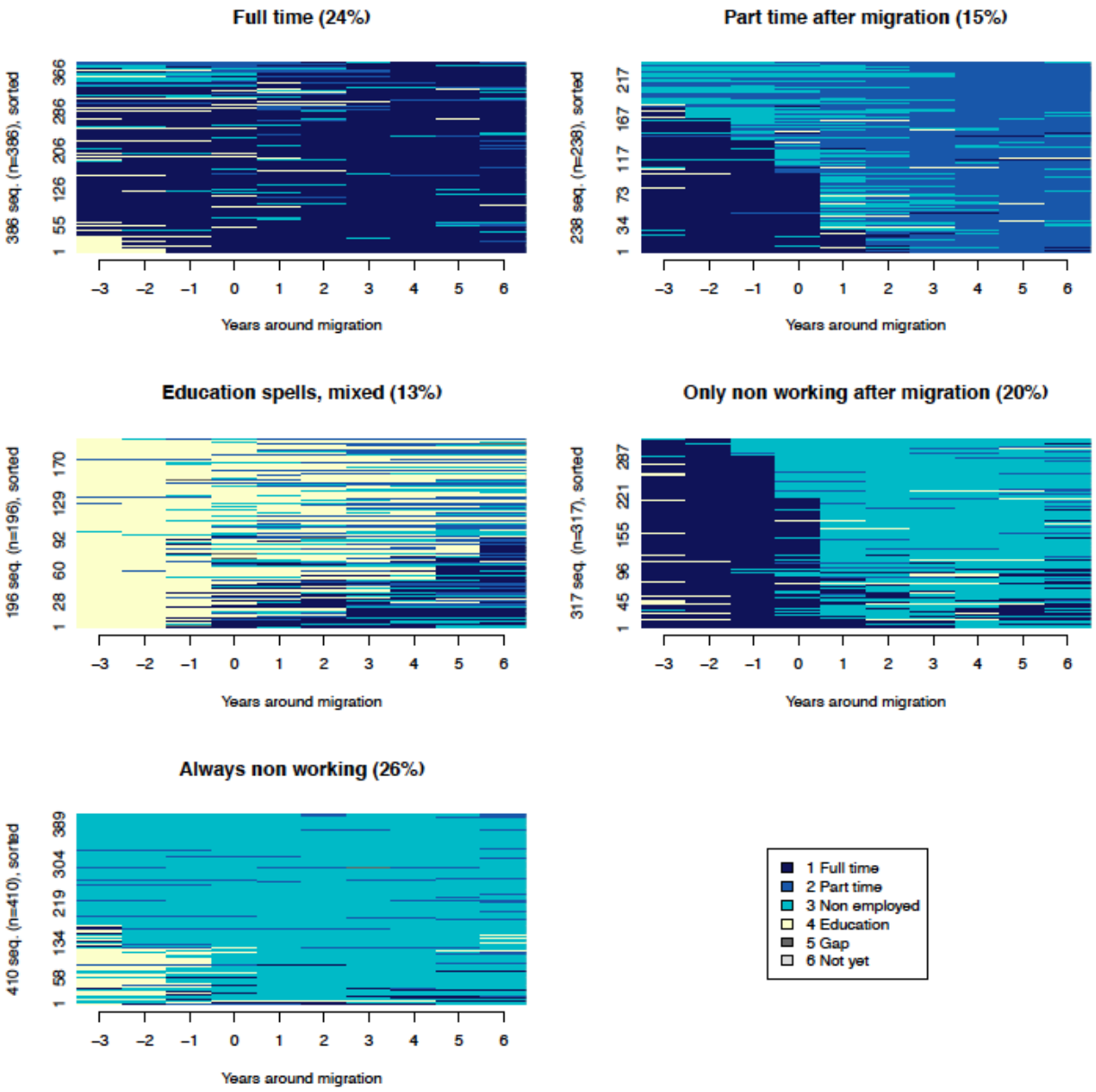


Figure 1b. Sequence frequency plots, corresponding childbearing patterns to the Figure 1a. 5-cluster employment biographies solution

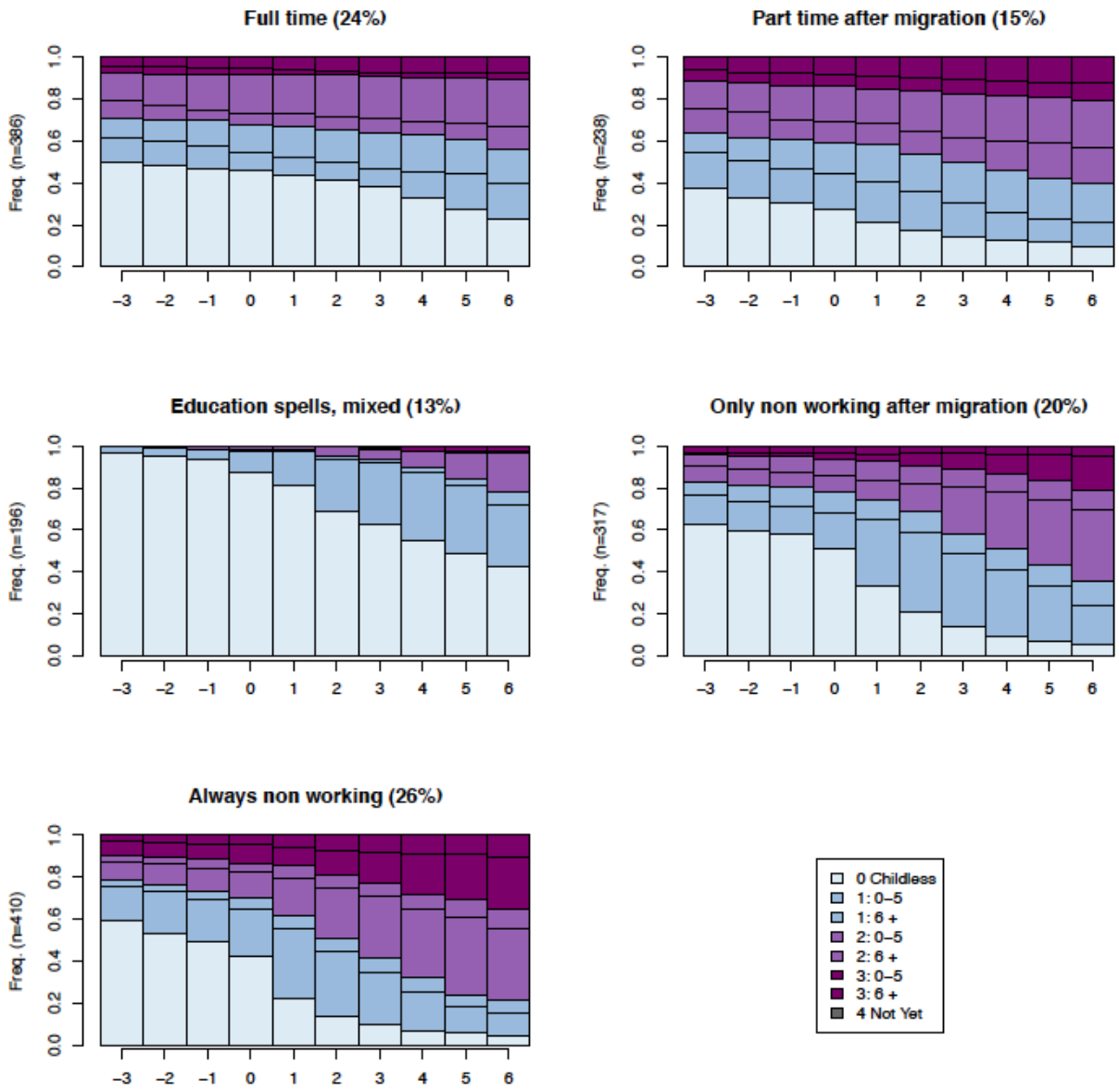
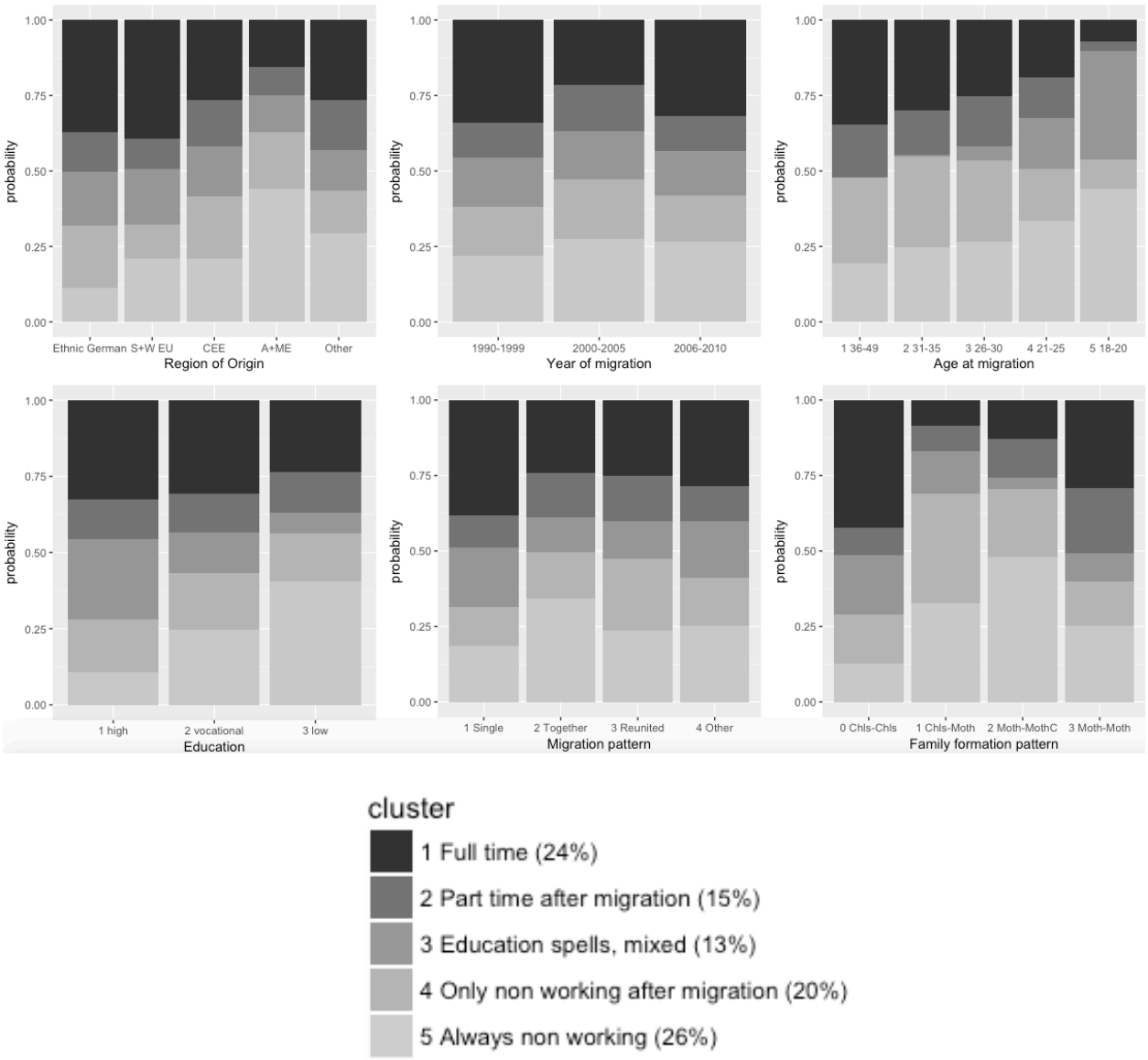
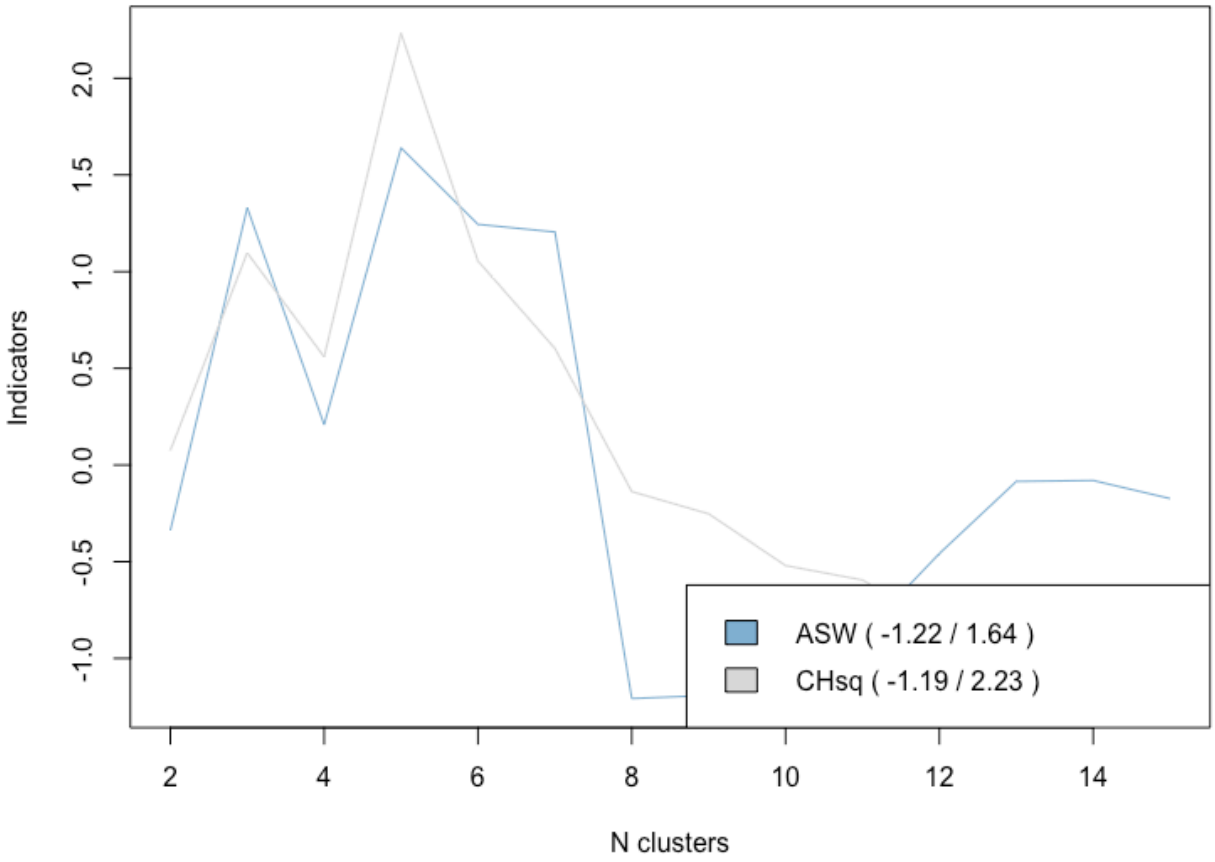


Figure 2: Average predicted probabilities, multinomial logistic regression, cluster affiliation



9 Appendix:

9.1 Appendix A: Cluster criteria cut off criteria



9.2 Appendix B: Countries represented in Region of Origin variable

Central + Eastern EU	Albania, Armenia, Azerbaijan, Belarus, Bosnia-Herzegovina, Bulgaria, Croatia, Estonia, Georgia, Hungary, Kazakhstan, Kosovo-Albania, Kyrgyzstan, Latvia, Lithuania, Macedonia, Moldavia, Montenegro, Poland, Romania, Russia, Serbia, Slovakia, Slovenia, Tajikistan, Turkmenistan, Ukraine, Uzbekistan
Western + Southern EU	Austria, Belgium, Benelux, Czech Republic, Denmark, Finland, France, Great Britain, Greece, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland
Africa + Middle East	Algeria, Cameroon, Chad, Congo, Egypt, Eritrea, Ethiopia, Gambia, Ghana, Iran, Iraq, Israel, Jordan, Kenya, Kurdistan, Lebanon, Morocco, Namibia, Nigeria, Palestine, Somalia, South Africa, Sudan, Syria, Togo, Tunisia, Turkey, Uganda, Yemen
Others	Afghanistan, Argentina, Australia, Bangladesh, Bolivia, Brazil, Cambodia, Canada, Chile, China, Colombia, Cuba, Dominican Republic, Ecuador, Hong Kong, India, Indonesia, Japan, Korea, Laos, Malaysia, Mexico, Mongolia, Nepal, New Zealand, Pakistan, Peru, Philippines, Sri Lanka, Taiwan, Thailand, USA, Venezuela, Vietnam