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**Immigrants and Ethnic Minorities in European Cities: Life-courses and
Quality of Life in a World of Limitations**

LIMITS

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Immigrants and Ethnic Minorities in European Cities: Life-courses and Quality of Life in a World of Limitations (LIMITS)

Abstract

The LIMITS project comprises research among first generation immigrants from different sending countries, in six cities in five European countries. The project aims to identify trends in the life courses of six selected groups of immigrants. It employs a double viewpoint: a comparative perspective across different groups in six European cities, and a longitudinal perspective on the migrant's complete life trajectory which has been almost entirely missing from migration research.

The cities included into the analysis are Amsterdam, Bielefeld, Lisbon, Rotterdam, Stockholm and Vienna. The selection of these cities was based on their metropolitan character and their countries' specific histories of immigration and political frameworks. The immigrants included in the research are identified by their place of birth. The research is thus focused on the so-called first generation. The sending countries included in the research are Turkey (Amsterdam, Bielefeld, Stockholm and Vienna), Morocco (Amsterdam and Stockholm), Serbia (Bielefeld and Vienna) and Cape Verde (Lisbon and Rotterdam). Besides, in Lisbon immigrants with an Indian (Hindu) ethnic and religious background, mostly from former Portuguese colonies in Africa, are included in the research. Except for their status of being born abroad, respondents had to meet two other criteria. They had to be at least 35 years of age, and to have a residence in the receiving country of at least 15 years. Of the populations selected for the local surveys, 300 interviews per group were realised. The total dataset comprises 3.300 cases.

The collected data cover the lives of the respondents on a wide spectrum of domains. The longitudinal format enables the detailed analysis of the post-immigration life course on the domains of household, housing and relation to the labour market, using the statistical methods of Event History Analysis (EHA). Every change in the household composition, and every spell in the housing and labour market career has been recorded, documenting the basic characteristics of every change and spell. For three moments in the post-migration life course of every individual respondent, at the start, the middle of stay and the current situation, additional relevant data on the housing and labour market circumstances were collected. Besides, extensive data on intra- and inter-group relations in the informal sphere were likewise for these three moments collected.

Moreover, the trends to be discovered this way in post-immigration careers can be related to 1) a rich set of pre-migration data, covering amongst other things the educational and labour market profile of the parents of the respondents and of the respondents themselves prior to migration, their (urban or rural) living conditions in the country of origin and their region of origin, 2) the history of immigration of the respondents and that of their families, including the complete history of the formation of the household, trans-national social networks and migration motives existing prior to the arrival in the destination country, 3) the educational attainment of the respondent in the destination country and his/her second language proficiency, and 4) the educational and labour market profile of the partners and all the children of the respondent.

Being a pilot study, its most explicit aim is the provision of a unique dataset for longitudinal analysis, accessible for every social scientist active in the field of migration. In the final report we have focused on basic analyses that map out for the social scientific community the possibilities of the dataset, and the directions into which further analyses could develop. A number of findings already give occasion to point to some do's and don'ts for policy.

Acquired skills through education and work in the country of origin have played an important role in succeeding to escape the most unskilled and elementary jobs at the bottom of the labour market of the country of destination. We recommend that policy be less fixated on the 'danger of immigration', and allow for a more balanced approach to the phenomenon, considering seriously the skills and education which today's immigrants bring with them when they come to Europe.

Concerning labour market participation, in all the diversity over cities and groups we have observed that women in each group and city have a lower participation rate than men. Simultaneously, however, we could establish that, in contrast to males, females' participation rates do increase with further education in the country of destination. Here an apparent opportunity for policy presents itself: intensification of schooling of women of immigrant background *of the first generation*, focused on specific occupations in specific sectors of the labour market, might well pay off.

A sizable group of large families with already a long history in their new country still lives in congested circumstances. Its offspring is born and raised in the European Union, but their chances are negatively affected

by their living conditions, which should be improved through a more effective housing policy facilitating a sufficient number of sized and affordable dwellings for the groups involved

Fears that friendships among immigrants and participation in immigrant institutions restrict social participation in the encompassing society are not warranted. The opposite has been shown: Persons with an active integration into immigrant social life are better integrated into the receiving society than those with few ties with co-migrants. Against the background of these findings, political considerations of curbing down collective migrant activities to stimulate participation in formal and informal networks of the receiving society seem ill-founded.

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1 Executive summary

Objectives

In Europe, research concerning the integration of immigrants has brought forward numerous studies. Many focus on the experience of migration, while mainly stressing the disadvantaged and often segregated situation of immigrants in the receiving societies. A large part of these studies remain on a rather descriptive level regardless of whether a macro or a micro approach is taken. Most studies deal with aggregated data sets as far as these are nationally available. The analyses are cross-sectional, and do not give opportunities to assess causal relationships, as generally any a longitudinal perspective is lacking.

Of the few cross-country comparisons of immigrant and minority groups that are available so far, hardly any follow the life-courses of immigrants during the post-migration phase. In this project, the through survey research collected and statistically assessed life courses of immigrants take centre stage. These life courses are collected through survey research and have been subsequently statistically assessed.

The objectives of this project are twofold: firstly, we provide a dataset with unprecedented possibilities to improve the knowledge on the critical relationship between local/national contexts on the one hand, and the pre-migration background and life courses of immigrants in the destination country on the other hand. Secondly, the dataset offers many opportunities to develop further the methodological armamentarium of the social sciences, especially on the subject of the analysis of retrospectively collected longitudinal data. The dataset will serve as a knowledge base for future policy development, making possible the identification and analysis of issues of importance for European policy, for instance on the domain of the labour market, residence, migration and naturalisation regulations, justice, freedom and security. However, to generate results on which European policy could be based, extended analyses are necessary, after the LIMITS project is concluded.

The idea behind the research is that common events in the life cycle of first generation immigrants play an important role in explaining differences in economic position and social participation of immigrants and their offspring. The research uncovers different trends in the life course of immigrants and their families, within and across immigrant groups and receiving countries. As has been illustrated in previous comparative research on the legal and economic integration of immigrants in different European countries, 'national' differences persist on the level of participation in the labour market as well as in terms of the social and political rights ascribed to immigrants. The status passages of immigrants (as evident from their household, residential and work history) are most probably dependent on the specific national and local framing conditions at their residency, as the receiving societies have gone through different immigration experiences, and vary in size, and in terms of immigration policy and welfare regime.

The focus of LIMITS' research is on first generation immigrants from different sending countries, in six cities in five European countries. The project aims to identify trends in the life courses of six selected groups of immigrants. It employs a double viewpoint: a comparative perspective across different groups in six European cities, and a longitudinal perspective on the migrant's complete life trajectory which has been almost entirely missing from migration research.

The countries included into the analysis are Austria (Vienna), Germany (Bielefeld), the Netherlands (Amsterdam and Rotterdam), Portugal (Lisbon), and Sweden (Stockholm). The selection of these countries was based on their specific histories of immigration and their

political frameworks. In methodological terms, the different countries can be considered as independent variables. The immigrants included in the research are identified by their place of birth. The research is thus focused on the so-called first generation. The sending countries included in the research are Turkey (Amsterdam, Bielefeld, Stockholm and Vienna), Morocco (Amsterdam and Stockholm), Serbia (Bielefeld and Vienna) and Cape Verde (Lisbon and Rotterdam). Besides, in Lisbon immigrants with an Indian (Hindu) ethnic and religious background, mostly from former Portuguese colonies in Africa, are included in the research. Except for country of birth¹, it was decided that the selection of respondents had to meet two other criteria. Respondents had to be at least 35 years of age, and to have a residence in the receiving country of at least 15 years.

Concise summary of results

The data which have been collected cover the lives of the respondents on a wide spectrum of domains. The longitudinal format enables the detailed analysis of the post-immigration life course on the domains of household, housing and relation to the labour market, using the statistical methods of Event History Analysis (EHA). Every change in the household composition, and every spell in the housing and labour market career has been recorded, documenting the basic characteristics of every change and spell. For three moments in the post-migration life course of every individual respondent, at the start, the middle of stay and the current situation, additional relevant data on the housing and labour market circumstances were collected. Data on intra- and inter-group relations in the informal sphere were likewise for these three moments collected.

Besides, the trends to be discovered this way in post-immigration careers can be related to 1) a rich set of pre-migration data, covering amongst other things the educational and labour market profile of the parents of the respondents and of the respondents themselves prior to migration, their (urban or rural) living conditions in the country of origin and their region of origin, 2) the history of immigration of the respondents and that of their families, including the complete history of the formation of the household, trans-national social networks and migration motives existing prior to the arrival in the destination country, and 3) the educational and labour market profile of the partners and the children. Being a pilot study, its most explicit aim is the provision of a unique dataset for longitudinal analysis, accessible for every social scientist active in the field of migration. The analyses that are performed upon the data within the time frame of the LIMITS project are restricted in scope, as the focus is on the preparation of the dataset for public access. In this final report we have focused on basic analyses that map out for the social scientific community the possibilities of the dataset, and the directions into which further analyses could develop.

Pre-migration influences

We have looked into the influence of so-called pre-migration factors on the social position of immigrants. In this respect, we have asked ourselves to what degree the social position of first generation immigrants, as conveyed by the status of their profession, is affected by factors pertaining to their experiences in their country of origin. The explaining variables chosen here are of a special nature. They are sought in the experiences of the respondents in their country of origin, more specifically in the educational capital of their parents, the

¹ As in Lisbon Indian immigrants could not be identified by country of birth (they mostly come from Mozambique, from which country many other immigrants came to Portugal), they were included in the sample by the method of self-identification.

character of the place where they grew up (town or village), their own achieved level of schooling, and their experiences in the labour market before they left the country. As this analysis should be seen as a first exercise using the LIMITS dataset in causally relate experiences before and after migration, the focus is here on the explanans, rather than on the explanandum. Of course, already in this paragraph we aim to give an explanation for the social position of our respondents in their host country. We have chosen, as the main indicator for social position, the level of occupation reached by the respondents when they were in the middle of their post-migration life course. However, the economic activities of the survey population (in particular their relation to the labour market, their sector of industry and their level of occupation) are dealt with more thoroughly in another paragraph below. This part of the analysis merely explores, in a tentative way, the relationship between pre-migration background and post-migration life course.

We found that parents' education has a significant positive effect on the probability of attaining a higher level of occupation in the destination country. Striking in this respect is that the educational background of the mother gives a somewhat larger effect than that of the father. Also, the place in which one has grown up in the home country (either a more rural, or a more urban environment) has a significant impact on the professional level one attains in one's work in the country of destination. Being a male (gender has, as could be expected, a significant influence) and having grown up in a city area increase the probability of achieving a better qualified position in work in the immigration society. Taking these influences into account, the education of the parents has still a positive impact on the probability of attaining a higher job level. Only after controlling for schooling and job level of the respondent in the country of origin, parents' educational level loses its significance, which means that educational level of respondents and that of their parents in the country of origin are strongly interrelated.

From this, we should not conclude that differences in educational level between the generations are insignificant. In fact, a consistent improvement in pre-migration educational attainment can be observed when we compare the figures of the immigrants with those of their parents. This improvement is most outspoken in the case of the Serbs in Bielefeld and Vienna, and the Hindus in Lisbon, especially when we look at the increase of the share of certificates in secondary education. Moroccans in Amsterdam have by far the most humble educational profile; here an especially conspicuous contrast can be observed with Moroccans in Stockholm. Comparing the sexes, we see huge differences to the advantage of the male respondents. The differences seem to be of the same magnitude as those between the mothers and fathers of the respondents. However, differences between the male and female respondents are significantly less large compared to the differences between the male respondents and their fathers. Female immigrants have considerably improved their schooling level compared to that of their fathers in all groups, including those with the lowest educational profile, already before coming to the destination country. The difference with their mothers' schooling level is still very much larger.

Working experience of immigrants in the home country also significantly affects the professional position in the destination country. Immigrants with working experience in their home country tend to continue working on the same level after immigration. By and large, these results prevail when we control for the different home countries. When controlling for country of origin, and taking the Cape Verdes as point of reference, we found that Hindu immigrants attain significantly better job levels than those from the Cape Verdes, while immigrants from Turkey remain in the lower occupational strata of the labour market to significant degree.

We found that the schooling of respondents before immigration has a positive significant effect on the probability of attaining a job at all but the lowest occupational level (elementary

occupations). Correspondingly, having grown up in an urban environment, increases the probability that one is able to avoid employment at the lowest occupational level. Migrants from rural areas are more likely to work at the lowest occupational level. Similar trends apply for respondent's job level in his/her country of origin. Lastly, the distribution of job levels over our research population is profoundly gendered: compared to women, men are significantly more often engaged at the four highest occupational levels at the middle of their post migration life course. In the section on structural integration we will pursue this matter further.

Implications for policy should be formulated prudently at this stage. It seems however clear that acquired skills through education and work in the country of origin have played an important role in succeeding to escape the most unskilled and elementary jobs at the bottom of the labour market. This lowest occupational level constitutes the echelon of economic activity in which Western European countries have welcomed labour migrants in the 60's, 70's and 80's of the last century, and represents also the category of labour in which so many employees (among which labour migrants were so prominent) remained without work over the past decades, when major transformations in the European economy materialised. The decrease in employment rates over time within our research population will be established and commented upon in the next paragraph. As pre-migration skills obviously do make a difference, we recommend that policy be less fixated on the 'danger of immigration', and allow for a more balanced approach to the phenomenon, considering seriously the skills and education which today's immigrants bring with them when they come to Europe.

Structural integration - labour

In what concerns structural integration through the labour market, the project addressed topics such as the evolution of employment and unemployment rates over time, the economic sectors and branches migrants tend to work in and occupational upward mobility patterns.

The empirical information gathered by the project is compared with other relevant data in the light of contextual differences regarding migration and social policy in the six European cities.

The labour market experience of the interviewed migrants in the six cities is characterized by changes and continuities all along their migration trajectories. An important change has been the decrease in the employment rates from the middle of their trajectory to the moment of the interview. This is due, on the one hand, to the fact that many immigrants reach retirement age and, on the other hand, to unemployment.

The distribution across economic sectors has been more stable. Some changes occurred over time, but they did not alter the broader structural position of immigrants in the labour market. This is also true for occupational composition. A certain amount of movements between types of occupations happened in each city and group, but many immigrants stand in the same kind of occupation during their entire labour market trajectories. Three points should be stressed as main conclusions.

The first one has to do with differences in the immigrants' economic participation regimes across groups and cities. In every dimension covered by our research we found important differences in this respect. There are sharp contrasts in the economic sectors in which immigrants mostly participate. In some cases it may be the industry, in other cases it is the construction or the services sector. Another example is that groups with the same ethnic background have different occupational profiles in different cities.

A second point is that immigrants' labour market experience is a gendered one. Compared to men, women in each group and city have a lower labour market participation rate, despite

the fact that their participation increases over time. The economic sectors men and women tend to work in are also very different ones. While men are highly concentrated in industry and construction women are mostly to be employed in the service or domestic sector. Yet, in contrast to male, females' participation rates do increase with further education in the receiving country. It should also be noted that women's labour situation is heterogeneous across groups and cities.

The third point to be stressed is the probability of an upward occupational mobility over time. In general terms, there is no evidence of far-reaching social mobility. More specific findings are that groups such as the Turks are not likely to have significant upward moves and the same happens with women when compared to men. Education is a major factor of upward mobility, unlike the year of arrival, whose effect is insignificant.

Structural integration - housing

We consider the housing situation an important indicator for the quality of life and for the integration of immigrants in the receiving country. As criteria for the quality of housing we analysed particularly the type of the dwellings the respondents lived in and the ratio of the number of persons and rooms in the dwelling. The detailed analyses (see D14 on Housing) revealed noticeably differences between the different European cities and the ethnic groups, pointed out changes in the housing conditions over the time and displayed factors influencing the size of a dwelling of the respondents. The most important, general outcomes are the following: 1) The type of the dwelling and the individual housing situation of the immigrants is noticeably influenced by the local housing conditions. Simultaneously, preferences towards housing related to one or the other immigrant group have not been found. Whereas the distributions between the different samples in the same city are quite similar, the distributions of the different cities vary noticeable. 2) The most frequent type of dwelling is a rented flat or house. The share of respondents living in such a kind of dwelling amounts to 70% at the moment of the interview. In all cities except for Lisbon the majority of respondents reside in a rented dwelling. 3) The status of the dwelling improved definitely over time in all groups and cities; although still a clear minority, the share of owned apartments has increased significantly. 4) The average duration of stay in the dwelling where people were living at the moment of the interview amounts to almost twelve years. 5) In general the average number of household members in the samples decreased over the years, whereas the average number of rooms increased. The share of respondents living in precarious housing conditions declined as well noticeably over the years.

All results considered it can be concluded that the individual housing situation of the respondents in terms of the type and the occupancy of the dwelling is more distinctly influenced by standards of the receiving country and the local housing conditions in the respective city than by the country of origin of the respondent.

Furthermore, the housing conditions of our target group, first generation migrants, have noticeable bettered over time in all cities and groups. For an efficient integration of immigrants, policy has to avoid the deficits of the past and has to allow future immigrants to move into appropriate dwellings as soon as possible after settlement in the country of destination. Then, the results make clear that a sizable group of immigrants in all cities live in a congested housing situation. It goes without saying that it concerns predominantly families with numerous children. As the chances of the next generation are involved, local and national policy makers should all the more give priority to an effective housing policy which facilitates a sufficient number of sized and affordable dwellings for the groups involved.

Social integration

In this survey social integration of migrants into the receiving society was defined as the presence of close friend of indigenous origin, frequency of interaction with them, and the frequency of visits to indigenous organisations. It has been shown that at a group level the overall degree of interethnic interaction varies considerably in that it is lower for some groups of origin, as the Turks in some countries, presumably for reasons of poor language acquaintance, and better for others, such as Hindus in Lisbon and Cape Verdians in the Netherlands and in Lisbon. In fact, regression analysis has shown that all other things equal, mastery of language is one of the most powerful determinants of interethnic intercourse, both on an informal level (friendship) and on a formal level (participation in organisations). Thus in those countries where immigrants do not speak local majority languages, if social integration is to be promoted, efforts should be directed at the provision of language learning opportunities. Among the groups that are not sufficiently able to communicate in the vernaculars are often the elderly and women. They deserve special attention as their social integration is often rather poor if our measures are anything to go by.

Jobs often provide a field of interethnic interaction. For some groups it has been shown that the number of years a person has spent in employment is a predictor of the extent of interethnic friendships. Though this effect is not consistent, it points at ways of better incorporating hitherto socially not well integrated parts of the migrant population into mainstream society.

Changes over time seem to be quite frequent in all countries and groups and are probably linked to the life-cycle of migrants. After a steady increase in the initial phases of sojourn, there regularly seems to be a decrease in the age span above 60 years. This however needs not be anything to worry about as it coincides with the retreat from the labour market. It rather shows that jobs are important for social integration and underline the necessity to undertake any effort to incorporate the offspring of first generation migrants into the national labour markets. As to the social integration of the latter, the situation can be expected to improve greatly as for the first generation; the fact that a person has attended school in the country of reception has turned out to be another strong predictor of social integration.

Finally, the role of integration of migrants into intra-ethnic social structures such as migrant organisations has been analysed. Fears that friendships among migrants and such institutions supplied by the migrant community restrict social participation in the encompassing society are not warranted. The opposite has been shown: Persons with an active integration into migrant social life are time better integrated into the receiving society than those with few ties with co-migrants.

Short discussion on policy implications

Implications for policy should be formulated prudently at this stage. It seems however clear that acquired skills through education and work in the country of origin have played an important role in succeeding to escape the most unskilled and elementary jobs at the bottom of the labour market. This lowest occupational level constitutes the echelon of economic activity in which Western European countries have welcomed labour migrants in the 60's, 70's and 80's of the last century, and represents also the category of labour in which so many employees (among which labour migrants were so prominent) remained without work over the past decades, when major transformations in the European economy materialised. As pre-migration skills obviously do make a difference, we recommend that policy be less fixated on the 'danger of immigration', and allow for a more balanced approach to the phenomenon, considering seriously the skills and education which today's immigrants bring with them when they come to Europe.

Occupational profiles depend heavily on the local context in which immigrants live. Also, within one local context the labour market career is diversified within and between groups. Clear-cut policy recommendations to improve the situation of immigrants who have settled in the destination countries since years are therefore difficult to give. In general terms, there is no evidence of far-reaching social mobility in terms of occupational level. Nonetheless, concerning labour market participation, in all the diversity over cities and groups we have observed that women in each group and city have a lower participation rate than men. Simultaneously, however, we could establish that, in contrast to males, females' participation rates do increase with further education in the receiving country. This might be related to the fact that the sectoral distribution of labour over the survey population is deeply gendered. Women, for instance, are predominant in the service sector, where modest schooling might open doors to typical women's jobs. It could also be related to the considerable arrears in labour market participation that women on the whole still have compared to men; their schooling lags behind as well, so there is leeway women are making up for. Be that as it may, here an apparent opportunity for policy presents itself: intensification of schooling of women of immigrant background *of the first generation*, focused on specific occupations in specific sectors of the labour market, might well pay off.

The individual housing situation of the respondents in terms of the type and the occupancy of the dwelling is more distinctly influenced by standards of the receiving country and the local housing conditions in the respective city than by the country of origin of the respondent.

Furthermore, the housing conditions of first generation migrants have noticeably improved over time in all cities and groups. For an efficient integration of immigrants, policy has to avoid the deficits of the past and has to allow future immigrants to move into appropriate dwellings as soon as possible after settlement in the country of destination. Then, our results make clear that a sizable group of immigrants in all cities live in a congested housing situation. It goes without saying that it concerns predominantly families with numerous children. As the chances of the next generation are involved, local and national policy makers should all the more give priority to an effective housing policy which facilitates a sufficient number of sized and affordable dwellings for the groups involved.

If social integration is to be promoted, especially in those countries where immigrants do not speak local majority languages, efforts should be directed at the provision of language learning opportunities. Among the groups that are not sufficiently able to communicate in the local language are often the elderly and women. They deserve special attention as their social integration is often rather poor.

Changes over time seem to be quite frequent in all countries and groups and are probably linked to the life-cycle of migrants. After a steady increase in the initial phases of sojourn, there regularly seems to be a decrease in the age span above 60 years. This however needs not be anything to worry about as it coincides with the retreat from the labour market. It rather shows that jobs are important for social integration and underline the necessity to undertake any effort to incorporate the offspring of first generation migrants into the national labour markets. Jobs often provide a field of interethnic interaction. For some groups it has been shown that the number of years a person has spent in employment is a predictor of the extent of interethnic friendships.

Fears that friendships among immigrants and immigrant institutions restrict social participation in the encompassing society are not warranted. The opposite has been shown: Persons with an active integration into migrant social life are better integrated into the receiving society than those with few ties with co-migrants. Against the background of these findings, political considerations of curbing down collective migrant activities to stimulate participation in formal and informal networks of the receiving society seem ill-founded.

2 Background, objectives and changes in the design of LIMITS

LIMIT's major goal, as circumscribed in the original project proposal, was to identify the causal factors that influence decisions made by immigrants and their descendants regarding the different strategies they choose to improve their personal wellbeing. The original objectives were intentionally framed in a fundamental, but also broad perspective. The project served to improve the knowledge on the critical relationship between socio-economic contexts and the life courses and strategies developed by immigrants and to develop further the methodological toolkit of the social sciences. First and foremost, the longitudinal design of the research was to guarantee the achievement of these aims. By including sections with a calendar structure and questions with a retrospective character in the questionnaire, LIMITS opened up possibilities to identify causal relationships and to assess these relationships empirically.

The general framework stipulated in the original proposal made it possible and necessary that from the outset, the LIMITS partners give a concrete interpretation of the broad directions formulated and select the social fields, and the depth of the longitudinal perspective that should be covered by the research. During the kick-off meeting in October 2001, the following decisions were made:

1) The target populations were defined as consisting of first generation immigrants regardless of current citizenship. Sampling would be restricted to persons over 35 years of age with at least 15 years of residence who were born abroad. The age and residence restrictions were introduced in order to make sure that respondents would have a sufficiently long life-course in the current country of residence so the impact of the receiving country's institutions on the outcomes could be felt. No criterion was set on age at arrival in the destination country.

2) The specific target populations were largely determined in the project proposal. The partners agreed that the research framework should make comparisons between different groups in one city, and between same groups in different cities possible. This led to a selection of two different groups per city, making sure that groups from the same country of origin would be selected in at least two cities.

In the course of the project some adjustments had to be made in the group-city design, chiefly because the partner from the UK experienced difficulties, first, in guaranteeing sample size and then, in rounding off the fieldwork successfully. Later, this partner had to withdraw from the project. Because of these developments, Amsterdam changed from studying Greeks and Turks to Moroccans and Turks, Uppsala changed from Serbians and Turks to Moroccans and Turks, and Bielefeld changed from Greeks and Turks to Serbians and Turks.

When, at the start of the third year, Leicester withdrew from the project, it was decided to incorporate an extra group (and city) in LIMITS, to make up for the loss of possibilities for Lisbon for 'same group, cross-city' comparisons.

The EC and all other partners have been continuously informed on the part of the coordinator about the unfortunate development and the necessity to withdraw University of Leicester from further co-operation in the LIMITS project. All other partners agreed on this decision. During the partner meeting in Feb. 24-26, 2005 in Lisbon the consortium agreed on the completion of an additional fieldwork in Rotterdam within the group of Capeverdean migrants. Amsterdam had already begun to execute a survey among first generation Capeverdeans in Rotterdam, following the research design and criteria of LIMITS to the letter. The subsequent formal annexation of this initiative by LIMITS to guarantee the realisation of these additional 300 interviews was vital for the project, since the withdrawal of

the UK partner affected the original study design and especially the comparability between groups in different cities.

3 Project results and methodology

3.1 Introduction

Objectives and the comparative framework

The focus of LIMITS' research is on first generation immigrants from different sending countries, in six cities in five European countries. The project aims to identify trends in the life courses of six selected groups of immigrants. Immigrants have been consistently identified as vulnerable groups by both scholars and practitioners in a large number of studies. It is generally agreed that they are highly affected by policies particularly implemented to influence their opportunity structure and therefore shaping their life-courses. The LIMITS research, however, refers to immigrants and their descendants not only as passive recipients of policy measures but also as active architects of their lives. This project aims to analyse how these groups react to (changing) framing conditions that shape their opportunity structure. Simultaneously, the presupposition underlying the research is that common events in the life cycle of first generation immigrants play an important role in explaining differences in economic position and social participation of immigrants and their offspring. The research is expected to uncover different trends in the life course of immigrants and their families, within and across immigrant groups and receiving countries. As has been illustrated in previous comparative research on the legal and economic integration of immigrants in different European countries, 'national' differences persist on the level of participation in the labour market as well as in terms of the social and political rights ascribed to immigrants. The status passages of immigrants (as evident from their household, residential and work history) are most probably dependent on the specific national and local framing conditions at their residency, as the receiving societies have gone through different immigration experiences, and vary in size, and in terms of immigration policy and welfare regime.

Cities under study in the following countries

| | AUSTRIA | GERMANY | THE NETHERLANDS | | PORTUGAL | SWEDEN |
|--------------|---------|-----------|-----------------|-----------|----------|-----------|
| | Vienna | Bielefeld | Amsterdam | Rotterdam | Lisbon | Stockholm |
| Turks | | | | | | |
| Moroccans | | | | | | |
| Serbians | | | | | | |
| Capeverdians | | | | | | |
| Indians | | | | | | |

The countries and cities included into the analysis are Austria (Vienna), Germany (Bielefeld), the Netherlands (Amsterdam and Rotterdam), Portugal (Lisbon), and Sweden (Stockholm). The selection of these countries was based on their specific histories of immigration and their political frameworks. In methodological terms, the different countries can be considered as independent variables. The immigrants included in the research are identified by their place of birth. The research is thus focused on the so-called first generation. The sending countries included in the research are Turkey (Amsterdam, Bielefeld, Stockholm and Vienna), Morocco (Amsterdam and Stockholm), Serbia (Bielefeld and Vienna) and Cape

Verde (Lisbon and Rotterdam). Besides, in Lisbon immigrants with an Indian (Hindu) ethnic and religious background, mostly from former Portuguese colonies in Africa, are included in the research. Except for country of birth², it was decided that the selection of respondents had to meet two other criteria. Respondents had to be at least 35 years of age, and to have a residence in the receiving country of at least 15 years. The age and residence restrictions were introduced in order to make sure that respondents would have a sufficiently long life-course in the current country of residence so the impact of the receiving country's institutions on the outcomes could be felt. No criterion was set on age at arrival in the destination country.

Ensuring comparability

In the first year, national background reports were written by all partners on the cities and groups involved in the research, on the basis of a collectively agreed on structural outline, guaranteeing a common grid to make cross-national comparison possible. The methods used were secondary analysis of statistical data and of earlier qualitative and quantitative studies. The reports cover local developments and migration history over the past 20 years, and offer the possibility to correlate the collected status passages of immigrants to the macro conditions over time, such as those relating to the labour market, the national legal framework and regulations concerning the national welfare system. The background reports focus on the city level, while the national level is primarily considered in case of influences and developments in state-imposed, mostly legal conditions. Besides the different local contexts, the characteristics of the selected immigrant groups in these contexts were subject of secondary data collection. Compiled like this, the city reports also provided the information to be able to make a well-founded decision concerning the sampling procedure for the survey.

In this same period, the necessary preparations for conducting the survey were taken. The sampling procedure for the different cities was determined, combining the best options locally with a rigid cross-national design allowing for reliable comparisons. Simultaneously the calendar-based questionnaire was developed. Locally, pre-tests were executed on several drafts. A start was made with recruiting and training of interviewers, following a common set of criteria as to guarantee cross-national comparability.

Comparability and the predicament of representativeness

Bearing in mind that some bias in the samples is given, the analyses and interpretations should be driven by careful consideration of the possible effects of this bias. The data gained within LIMITS is going to be used for detecting and understanding given patterns in the data, for extensive study of the impact of socio-economic and legal contexts on the life-courses of the immigrants and for comparative analyses between groups in the considered city and between cities.

In a project spanning more than one administrative or political unit, as in LIMITS, this difficulty is exacerbated by the need to provide for comparable samples from very different sampling resources. There is general agreement that random sampling is the best sampling method as randomness minimizes distortions of the sample properties in comparison with the population (European Social Survey 2002a). There are several ways of achieving a random sample. As is noted as regards the European Social Survey, "Sample designs may be chosen flexibly and there is no need for similarity of sample designs. Flexibility of choice is particularly advisable for multinational comparisons, because the sampling resources differ

² As in Lisbon Indian immigrants could not be identified by country of birth (they mostly come from Mozambique, from which country many other immigrants came to Portugal), they were included in the sample by the method of self-identification.

greatly between countries. All this flexibility assumes probability selection methods: known probabilities of selection for all population elements” (Kish 1994:173). This is exactly the strategy chosen in LIMITS, i.e. to adopt the best practice available in each country. Given previous experience and cost limits, in most cities a variant of snowball sampling was selected, imposing different entrance points, reducing the bias towards the interviewers as much as possible, and safeguarding the distribution of the local immigrant population over the city districts in the profile of the survey population³.

Change, causality and event history analysis

Propositions about causal relations and change over time have rarely been formulated in a way that makes them amenable to empirical tests. By contrast, the LIMITS-project has gathered a comparable cross-city dataset comprising biographical, local and national data that is appropriate for testing models at differing levels of aggregation by adopting well-established tools for modelling change over time. One of the project’s major goals was to identify and analyse the causal factors that influence migrants’ individual strategies in the migration and integration process from a comparative perspective.

The impact of immigration on the economies and on the societies in the investigated countries (cities) is shaped not only by the migrants’ individual characteristics but also by basic features of the societies that those migrants have joined. Applying a comparative perspective, LIMITS aims at examining different societal characteristics and specific migration policies in the researched countries (cities) regarding their effect on individual migration and integration processes. Thus, a main objective of this project was to contribute to the improvement of knowledge on the critical relationship between socio-economic contexts and the life courses of migrants, by providing a dataset, tools and instances by which to analyse the *processual* nature of migration and integration.

LIMITS’ premise is to model change, i.e. to see social integration of immigrants not as an end stage, but as a process evolving over time. This means that the individual degree of social integration must not be treated as a fixed attribute like e.g. social background or gender, but as a potentially ever-changing outcome of a complex dynamic involving both individual and social factors.

The typical problem of the social scientist is to use appropriate statistical methods for describing this process of change, to discover the causal relationships among events and to assess their importance. Event history models are linked to a causal understanding of social process as they relate change in the future outcomes to conditions in the past and try to predict future changes on the basis of past observations (Aalen 1987, in: (Blossfeld and Rohwer 2002, p. 21).

In event history modelling, design issues regarding the type of the substantive process are of crucial importance. It is assumed that the methods of data analyses (e.g. estimation and testing techniques) cannot only depend on the particular type of the data (cross-sectional data, panel data, etc.) as has been the case in applying more traditional statistical methodologies. Rather, the characteristics of the specific kind of social process itself must “guide” both design of data collection and the way that the data are analysed and interpreted (Coleman

³ See Salentin 2004 (LIMITS Deliverable nr.6, *Report on Sampling*). Because in most cities random sampling through the municipal register proved not possible, a relatively solid variant of snowball sampling was executed. Only two partners (Amsterdam and Bielefeld) obtained random samples from the Municipal registers of Amsterdam, Rotterdam, and Bielefeld. However, in the end also in these cities a large part of the respondents were approached through snowballing, following strictly the method that was implemented already by the other partners (Salentin 2004: 16). See for the exact distribution of respondents approached through register and snowball sampling Berns et al 2006: 16 (LIMITS Deliverable nr. 17, henceforth called *Limits Codebook*).

1973,1981,1990, in: (Blossfeld and Rohwer 2002, p.4). This is particularly true for event history data since it often relies on data that is retrospectively gathered. Among the conceptual considerations the recall skills of the interviewees (memories) represent a crucial point. Retrospective information with regard to behaviour or facts is not confronted with such high recall problems on the side of the respondents as non-factual data that concerns motivational, attitudinal, cognitive or affective states. Behavioural or factual questions ask the respondents about characteristics, things they have done or things that are happened to them, which in principle are verifiable by an external observer. In this sense the disadvantages of retrospection are only matter of degree (ibid., p.19).

The questionnaire

The data used in the analysis were collected in six European cities; in five cities the fieldwork was executed in 2004, in one city (Rotterdam) in 2005⁴. In each city, two samples of migrant communities comprising each 300 persons⁵ were asked questions on a wide range of topics, covering their pre-migration background, their migration history and that of their families and, in chronological detail, their post-migration life course. Following on the fieldwork, the data input and the first record checks have been executed locally. Subsequently, the partner in Bochum, who converted the data in the right format for analysis, set up the common dataset.

From the outset, the partners agreed to design the survey tool as a common exercise. This procedure was chosen to make sure that particularities of the different national and local contexts would not be overlooked, while simultaneously ensuring comparability. Moreover, the survey tool reflects the multi-disciplinary setting of the consortium; social geographers, anthropologists, economic geographers, sociologists and statistical experts came together and succeeded to identify a common focus. All partners contributed, and every item and its specific formulation has been discussed and decided upon by all. The result was a collectively assessed questionnaire with identical questions, used by all partners⁶.

For the local surveys, the questionnaires were translated in the following languages:

Amsterdam: Dutch, Turkish.

Bielefeld: German, Servo-Croatian, Turkish.

Lisbon: Portuguese.

Rotterdam: Dutch, Portuguese

Stockholm: Swedish, Turkish.

Vienna: German, Servo-Croatian, Turkish.

In the cases that respondents from the same country of origin were interviewed in different cities, identical, and bilaterally assessed questionnaires were used (in Turkish, Servo-Croatian, or Portuguese). Interviews were conducted by people with a complete fluency in the language, mostly native speakers. In Amsterdam, for the respondents from Morocco, the

⁴ See the country contributions to the common deliverable D8, *Report on Survey*.

⁵ Except for Rotterdam, where one sample of 300 persons was studied.

⁶ With the exception of the University of Uppsala, who, in its fieldwork in Stockholm, used a questionnaire which omitted several of these collectively agreed on questions. The dropped questions are all items pertaining to education and activities of parents (B8-B19), the questions on vocational training and activities of the respondent in the country of origin and in third countries (B21 and B23-B28), and some items on migration history (B351-B357). See the LIMITS Codebook, pp. 36-69. Besides the questions which were assessed by the consortium, some partners have added one or two questions for local use. Some of these extra local items are included in the dataset, and identified throughout in the LIMITS Codebook.

Dutch questionnaire was adapted for use by interviewers fluent in the three possible mother tongues of this group of respondents. This questionnaire provided for translations of key terms in Moroccan-Arabic, Rif-Berber and Souss-Berber. In Stockholm, the respondents born in Morocco could be expected to have complete command of the Swedish, and were accordingly approached in the Swedish language.

Due to the complexity of the event history data organization, much time was spent on the development of an appropriate design of the field instrument, which contains both the so called calendar and a questionnaire, covering the different aspects of the migrants' biographies. Several forms of the conventional part of the field instrument appeared in a multiple format, as some forms (series of questions covering the different fields of the respondents' biography) were asked for three moments in the post-migration life course, and others (concerning the children and partners of the respondent) had to be completed for each separate household member. In brief, the questionnaire consists of a number of forms, of which several have a multiple format, and some take the character of a so called calendar.

The *pre-migration form* includes the basic data pertaining to year and place of birth, and sex of the respondent, his or her year of arrival in the country of destination, several questions on his schooling in the country of origin and in possible third countries before coming to the destination country, questions on his/her working experience and relation to the labour market in the country of origin⁷, and questions about his/her current citizenship. Besides, questions on schooling and working experience of his/her parents were included. The pre-migration part involves as well an extensive set of items on motivations, decisions, and the social context surrounding the migration process.

The *education and second language form* records the post-migration educational attainment (general and vocational education). Besides, and especially when respondents did not follow any regular schooling in the country of destination, these were asked if they followed any training in the destination language, and if so, when and for how long. In conclusion, the respondent is asked to make an assessment of his proficiency in the destination language, on different moments during his/her stay in the receiving country, and in different situations in everyday life.

The *partner form* contains the basic data pertaining to year and place of birth, and sex of every partner, the type of relationship (married, living together, or having begotten one or more children in a so-called free union), the starting and, if applicable, ending year of the relationship, whether the partner has settled in the country of destination or not. If applicable, his or her year of arrival in the country of destination is recorded. Several questions are inserted on his schooling in the country of origin and destination separately, and questions on his/her working experience and relation to the labour market.

The *child form* includes the basic data pertaining to year and place of birth, and sex of each child, identifying the partner with whom the child is begotten, whether the child has settled in the country of destination or not. If applicable, the child's year of arrival in the country of destination is asked, and the starting and ending year of his/her participation in the post-migration household of the respondent. Included are also questions on the child's schooling in the country of origin and destination separately, and his/her relation to the labour market in the country of destination.

⁷ In the set of answering possibilities, three separate activities in the economic sphere are distinguished: full-time employee, part-time employee, and self-employed. Besides, several positions outside the labour market were discerned: unemployed, student/education, housekeeping, and a rest category for positions outside the labour force, such as retired, disabled, etc. See LIMITS Codebook, p. 47.

The *housing form* contains a calendar of questions on every housing situation, lasting one year or longer, during the post-migration life course. Here, the most basic questions are posed, regarding starting and ending year of every housing spell, neighbourhood, size of the municipality, kind of dwelling, number of rooms, and number of people living in the dwelling. Besides these basic questions for every housing spell, additional questions are asked for the spells that cover three moments in the post-migration life course of every individual respondent: one year after his/her arrival in the destination country, the moment of the interview, and the year that falls in the middle of his/her life in the country of destination. These questions collect data on the character of the relation, especially in terms of kinship, between the respondent and his/her co-dwellers, in other words, the composition of the household of which he/she is a member. In addition, an opinion is asked about the size and the price of the dwelling. Finally, the respondents are asked about the ethnic composition of the neighbourhood at the starting time of that particular housing spell, if this was a reason to select this dwelling at that time, and if they had any relatives or acquaintances living in the neighbourhood at the time that they moved there.

The structure of the *activity form* is comparable to that of the housing form. The calendar questions aim to collect the most basic information on the character of each activity every respondent was primarily involved in from the moment he/she arrived in the destination country. The categorisation more or less follows the line of answering possibilities that are given with the questions on working experience and relation to the labour market of his/her parents, partner, and children, and of him/herself in the country of origin, but discerns a few extra classes⁸. Obviously, the starting and ending year of every spell is asked and recorded, in the same manner as in the housing form. Then, additional questions are asked for the spells that cover three moments in the post-migration life course of every individual respondent, as explained for the housing form. These questions aim to record the occupational level, the branch of economic activity, the size of the working unit, the proportion of colleagues with an immigrant background, and if the job was situated in the private or public sector. If self-employed, the respondent is asked how many people he/she employed, and how many of these are kin related. In case the respondent was unemployed during that particular spell (in the sense of receiving an allowance, and being available for the labour market) the reason for unemployment is asked. For the third moment, the situation at the moment of the interview, some additional questions are asked for each of these situations⁹. For the remaining categories depicting one's relation to the labour market (retired, housekeeping, etc.) no questions are asked for the three moments.

Every respondent is asked the set of questions in the *income form*. These questions cover items pertaining to the situation of the interview. Respondents is asked to take stock of all their sources of income, to give an approximation of their monthly personal net income, as well as the total monthly net income of the household they form part of. In conclusion, respondents are asked if they at all, with some regularity, transfer money to their country of origin.

The final form of questions presented to the respondents in all cities is the *social integration form*. This form covers a set of questions asked at the three moments in the post-migration life course of every individual respondent as these are distinguished in the housing form above. The questions concern, firstly, an inventory of close friends (with whom you talk about intimate matters) in the classes of family, co-villagers/townsmen, fellow countrymen, and natives. Secondly, questions are asked on the frequency of less intimate contacts (involving conversation, 'but more than saying just hello') with these same classes of people.

⁸ See LIMITS Codebook, p. 101.

⁹ See LIMITS Codebook, p. 107-110.

Lastly, the frequency of participating in organised club-like activity is recorded, for two classes of such activity, namely organised by indigenous people, and by people from the same immigrant group.

Analysing LIMITS data

In what follows, we will present our findings from first analyses on a number of domains of the dataset. These domains involve variables from the life course prior to immigration (pre-migration influences), variables pertaining to the post-migration labour market career (structural integration – activities), variables disclosing the development in the housing situation (structural integration – housing), and variables informing us on patterns of informal participation in the destination society through items on friendships and relations with family, compatriots, and natives (social integration). These domains will be discussed in separate subchapters. As each subchapter presents a separate piece of analysis, trying to assess the substance of the variables in question for the life course of our respondents, some of these pieces of analysis will involve excursions into other domains, as the force of several explaining variables can occasionally only be demonstrated by involving dependent variables in some other domain. However, each of the following subchapters has clearly its own separate focus.

3.2 Pre-migration influences

Introducing the analysis

In this chapter, we will look into the influence of so-called pre-migration factors on the social position of immigrants. The central question we will address is:

To what degree is the social position of first generation immigrants, as conveyed by the status of their profession, affected by factors pertaining to their experiences in their country of origin?

Although we will aim to give an explanation for the social position of our respondents in their host country, the focus of this chapter is on the explanans, rather than on the explanandum. The explaining variables chosen here are of a special nature. They are sought in the experiences of the respondents in their country of origin, more specifically in the educational capital of their parents, the character of the place where they grew up (town or village), their own achieved level of schooling, and their experiences in the labour market before they left the country. Some descriptive questions we will attempt to answer, relate to these topics. We will provide the answers by way of distributions along the values of the relevant variables, while distinguishing the cities and groups under study.

To be able to answer, subsequently, the central analytical question, we have chosen, as the main indicator for social position, the level of occupation reached by the respondents when they were in the middle of their post-migration life course. This moment will henceforth be referred to as ‘the middle of stay’. Selecting occupational level as indicator supplies the opportunity to differentiate the dependent variable along a five-point ordinal scale.¹⁰ Of

¹⁰ We have taken two adjacent values of the ‘level of occupation’ variable together (3, *clerk/ service worker/ salesperson* and 4, *low civil servant*) as these levels do not seem to differ much, and (4) has very few scores. Further, 6, *elementary occupation/ labourer* and 9, *cleaning/washing* were taken together. (9) was only presented as a possibility to the respondents in Stockholm, and in terms of job level obviously falls within the broader category of (6). Two other values (7, *armed forces* and 8, *other*) were kept out of the analysis as these cannot be placed in an ordinal scale, and anyway had few scores.

course, this choice has its restrictions as well. In principle, it would be better to take the most recent moment for which we have data on the occupational level. However, we have significantly less observations at our disposal when we would refer to the moment of the interview. Only about half the survey population was working at the moment the survey took place, and only from them we have recorded their current level of occupation. The distribution is better when we include the data referring to the middle moment in our analysis.

We should make clear here that the economic activities of the survey population (in particular their relation to the labour market, their sector of industry and their level of occupation) are dealt with extensively in another subchapter hereunder. This part of the analysis merely explores, in a tentative way, the relationship between pre-migration background and post-migration life course.

For the purposes of this subchapter, another possibility would have been to take income as the main indicator of socio-economic status. Then we would have had information about the grand majority of the survey population. We have abandoned this idea because, firstly, personal income of especially non-working respondents is dependent on the volition of particularly the partner to supply the respondent with a regular monthly income and, secondly, the fact that between cities, there are vast differences in the purchasing power of the local currency (mostly the Euro), in the extent and quality of national social security allowances, and in what similar vocations in different national settings get paid.

The independent variables that will be engaged in an ordered logit analysis are, besides gender and age upon arrival, the environment in which the respondent grew up in the country of origin (a city or a village), the education of his or her father and mother, respondent's own educational level attained in the country of origin, and the level of occupation of the respondent in his or her last job before emigration.

Methods

Data Base

In a number of thematic fields such as jobs, dwelling, and social integration, the same questions were put to the respondents relating to three different points in time: (a) one year after the first arrival in the receiving country, (b) the year representing the middle of the stay in the receiving country, and (c) the time of the interview¹¹. With six cities and two (Rotterdam: one) groups per city, 11 groups are under study with a total N of 3304, and a total of $3 \times 3304 = 9912$ observations on the thematic sets is available. Due to individual missing values and the omission of certain items in some countries, notably Sweden, in the case of some variables we do not have all possible observations at our disposal. The descriptive paragraph hereunder uses the entire pool of measurements; in the analysis of the subsequent paragraph only those measurements are involved that affect the cases of those respondents who were actively involved in the labour market at the moment of the interview. Moreover, Sweden has been dropped from the ordered logit analysis, as many items pertaining to the explanans in this chapter, such as the educational level of the parents of the respondent, and the job level of the respondent attained in the country of origin, are not available in the Swedish dataset.

The ordered logit regression analysis focuses on the second point of measurement: the situation at the middle of stay of each respondent. As respondents' post-migration life course ranges from 15 to 50 years, the middle moment of their stay in the destination country marks a duration of stay ranging from 8 to 25 years. One can argue that taking the complete duration

¹¹ Which is 2004 in all cities except Rotterdam, where the interviews were executed in 2005.

of stay into consideration by focusing on the moment of the interview in stead of on the middle moment, would give us the possibility to reflect on the most complete trajectory of social mobility available. However, the pool of observations would diminish strongly, as many respondents, as they grew older, have withdrawn from the labour market¹².

Operationalization of the dependent variable: social position

Social position is, for the purposes of this particular analysis, narrowly defined as the occupational level of the respondent. This means that, for the regression analysis in this chapter, we restrict the research population to those respondents that carried out an occupation, as an employee or self-employed, at the moment of the research. In the questionnaire, the following wordings were used:

Occupational level of respondent at the middle of stay

A07: (In case full-time or part-time (self-)employed at the middle of the post-migration life course) What is your occupation?

Values used in the analysis:

1. Legislator/ senior government official
2. Technician/ professional
3. (3+4) Clerk/ service worker/ salesperson, Low civil servant
4. (5) Craftsman/ skilled worker
5. (6+9) Elementary occupation/ labourer, Cleaning/washing

(7. Armed Forces, and 8. Other were left aside as these do not fit an ordinal scale, and had very few scores anyway)

¹² As is shown when Tables 7b and 7c in Annex A, Appendix 1 are compared. From here on, when we refer to tables in the Appendix, Appendix 1 in Annex A is meant.

Operationalization of the independent variables: the pre-migration situation

Education father

B08: What is the highest level of general education completed by your father?

Values used in the analysis:

1. None
2. (2+3+4) Primary school
3. (5+6) Secondary school
4. (7) University entrance exams

(the original 3. '1st ciclo' and 4. '2nd ciclo', which pertain only to the Lisbon data, are merged with 2. 'Primary school'. The original 5. '3rd ciclo' (Lisbon data) is merged with 6. 'Secondary school', which has subsequently become the 3rd variable.)

Education mother

B10: What is the highest level of general education completed by your mother?

Values used in the analysis:

1. None
2. (2+3+4) Primary school
3. (5+6) Secondary school
4. (7) University entrance exams

(the original 3. '1st ciclo' and 4. '2nd ciclo', which pertain only to the Lisbon data, are merged with 2. 'Primary school'. The original 5. '3rd ciclo' (Lisbon data) is merged with 6. 'Secondary school', which has subsequently become the 3rd variable.)

Education respondent in country of origin

B20: What is the highest level of schooling you achieved in your country of origin?

Values used in the analysis:

1. None
2. (2+3+4) Primary school
3. (5+6) Secondary school
4. (7) University entrance exams

(the original 3. '1st ciclo' and 4. '2nd ciclo', which pertain only to the Lisbon data, are merged with 2. 'Primary school'. The original 5. '3rd ciclo' (Lisbon data) is merged with 6. 'Secondary school', which has subsequently become the 3rd variable.)

Occupational level respondent in country of origin

B28: (In case full-time or part-time (self-)employed during the two years preceding emigration) What was your occupation?

Values used in the analysis:

1. (5) Legislator/ senior government official
2. (4) Technician/ professional
3. Clerk/ service worker/ salesperson, Low civil servant
4. (2) Craftsman/ skilled worker
5. (1) Elementary occupation/ labourer, Cleaning/washing

(6. *Armed Forces* was left aside as this value does not fit an ordinal scale, and had very few scores anyway)

Living environment in country of origin during childhood

B072: Where did you live for the longest period before you turned 18, and before coming to the receiving country?

1. City (> 5.000 inhabitants)
2. Village (<5.000 inhabitants)

Other independent variables

B01: Sex

Values used in the analysis:

- 0: Male
1: Female

B06: Age upon arrival in country of destination

Descriptive analysis: Cities and Groups Considered Separately

This paragraph contains the descriptive part of this subchapter. It is focused on the independent variables that will play a part in the analysis in the next paragraph. These are the variables that concern the pre-migration background. The dependent variable, the one we have chosen to represent the post-migration socio-economic position of the respondents, viz. occupational level, will be described in another subchapter. To understand our decision to select occupational level recorded at the middle moment, it is important to point to the larger labour market participation of all groups at the middle moment compared to that of the last

moment¹³. The analysis gains in value because of the larger number of observations that can be included.

The Pre-Migration Situation

On the whole, the parents of the respondents have enjoyed not more than a modest education. Only few fathers have attained a certificate in secondary education that allows entrance in higher education; here the fathers of Serbian immigrants in Vienna, and Turkish immigrants in Amsterdam, stand out at least in comparison with the other groups in the survey with 6 percent. The group with the least education are surely the parents of Moroccan immigrants in Amsterdam. The grand majority of Moroccan fathers and mothers did not complete elementary education, the figures are respectively somewhat less and somewhat more than 90 percent. In the other groups, both fathers and mothers are doing better, but the difference between fathers and mothers is larger. Compared to the modest male educational profile, that of the female parental side can be characterised as diverging downwards in terms of tens of percentage points. Only the parents of the Serbs in Vienna and the Hindus in Lisbon have, relatively speaking, a somewhat more balanced distribution in school attainment, with the note that mothers here too have achieved significantly less than fathers.

Table 1: City and group by attained level of education father

| | Bielefeld | | Vienna | | Lisbon | | Amsterd | | Rotterd |
|-------------|-----------------|--------|--------|--------|----------|--------|---------|--------|----------|
| | Serbia | Turkey | Serbia | Turkey | Capeverd | Hindus | Morocco | Turkey | Capeverd |
| | absolute | | | | | | | | |
| None | 138 | 162 | 85 | 114 | 136 | 66 | 239 | 169 | 131 |
| Elementary | 100 | 116 | 146 | 139 | 110 | 188 | 21 | 106 | 121 |
| Secondary | 42 | 11 | 47 | 28 | 16 | 25 | 13 | 11 | 28 |
| Univ. Entr. | 7 | 7 | 18 | 10 | 5 | 6 | 1 | 18 | 8 |
| Total | 287 | 296 | 296 | 291 | 267 | 285 | 274 | 304 | 288 |
| | in % | | | | | | | | |
| None | 48,1 | 54,7 | 28,7 | 39,2 | 50,9 | 23,2 | 87,2 | 55,6 | 45,5 |
| Elementary | 34,8 | 39,2 | 49,3 | 47,8 | 41,2 | 66,0 | 7,7 | 34,9 | 42,0 |
| Secondary | 14,6 | 3,7 | 15,9 | 9,6 | 6,0 | 8,8 | 4,7 | 3,6 | 9,7 |
| Univ. Entr. | 2,4 | 2,4 | 6,1 | 3,4 | 1,9 | 2,1 | ,4 | 5,9 | 2,8 |
| Total | 100,0 | 100,0 | 100,0 | 100,0 | 100,0 | 100,0 | 100,0 | 100,0 | 100,0 |

¹³ The labour market participation at the middle moment is also larger compared to that of the first moment for all groups except for immigrants from Morocco and Turkey in Amsterdam. The data are displayed in subchapter 3.3 and in the Appendix, tables 7a,b,c and 8a,b,c.

Table 2: City and group by attained level of education mother

| | Bielefeld | | Vienna | | Lisbon | | Amsterd | | Rotterd |
|-------------|-----------|--------|--------|--------|----------|--------|---------|--------|----------|
| | Serbia | Turkey | Serbia | Turkey | Capeverd | Hindus | Morocco | Turkey | Capeverd |
| | absolute | | | | | | | | |
| None | 189 | 243 | 152 | 214 | 208 | 144 | 263 | 253 | 176 |
| Elementary | 92 | 49 | 113 | 66 | 70 | 131 | 16 | 53 | 89 |
| Secondary | 14 | 2 | 27 | 7 | 2 | 15 | 2 | 3 | 21 |
| Univ. Entr. | 3 | 3 | 7 | 5 | 5 | | 1 | 1 | 1 |
| Total | 298 | 297 | 299 | 292 | 285 | 290 | 282 | 310 | 287 |
| | in % | | | | | | | | |
| None | 63,4 | 81,8 | 50,8 | 73,3 | 73,0 | 49,7 | 93,3 | 81,6 | 61,3 |
| Elementary | 30,9 | 16,5 | 37,8 | 22,6 | 24,6 | 45,2 | 5,7 | 17,1 | 31,0 |
| Secondary | 4,7 | ,7 | 9,0 | 2,4 | ,7 | 5,2 | ,7 | 1,0 | 7,3 |
| Univ. Entr. | 1,0 | 1,0 | 2,3 | 1,7 | 1,8 | | ,4 | ,3 | ,3 |
| Total | 100,0 | 100,0 | 100,0 | 100,0 | 100,0 | 100,0 | 100,0 | 100,0 | 100,0 |

In the following tables appear the figures concerning the education of the respondents in their country of origin. To allow for a time frame in which it should in principle be possible to complete secondary education, we have selected those respondents who arrived in the immigration country at an age of 18 or older. On the whole, an improvement in educational attainment can be observed when we compare the figures with those of their parents.¹⁴ This improvement is most outspoken in the case of the Serbs in Bielefeld and Vienna, and the Hindus in Lisbon, especially when we look at the increase of the share of certificates in secondary education. Marked is also the share of immigrants from Turkey that succeeded in qualifying for higher education, in all four cities where they participated in the research. Moroccans in Amsterdam have by far the most humble educational profile; here an especially conspicuous contrast can be observed with Moroccans in Stockholm. When we compare the figures of the sexes (table 3abc in the appendix), we see huge differences to the advantage of the male respondents. The differences seem to be of the same magnitude as those between the mothers and fathers of the respondents. However, differences between the male and female respondents are significantly less large compared to the differences between the male respondents and their fathers. Female immigrants have considerably improved their schooling level compared to that of their fathers in all groups, including those with the lowest educational profile, already before coming to the destination country. The difference with their mothers' schooling level is still very much larger.

¹⁴ For the Stockholm data, intergenerational comparison is not possible, as in Sweden the questions on educational attainment of the parents of the respondents were not asked.

Table 3: City and group by level of education attained in country of origin, respondents 18 years or older on arrival in immigration country

| | Bielefeld | | Vienna | | Lisbon | | Amsterd | | Rotterd | | Stockh | |
|--------------|-----------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--|
| | Serbia | Turkey | Serbia | Turkey | Capeverd | Hindus | Morocco | Turkey | Capeverd | Morocco | Turkey | |
| | absolute | | | | | | | | | | | |
| None | 20 | 26 | 25 | 4 | 16 | 9 | 150 | 53 | 29 | 3 | | |
| Elementary | 124 | 83 | 98 | 113 | 129 | 121 | 30 | 104 | 101 | 109 | 79 | |
| Secondary | 97 | 25 | 104 | 63 | 40 | 94 | 27 | 23 | 64 | 95 | 97 | |
| Univ. Entr. | 15 | 42 | 22 | 32 | 1 | 10 | 9 | 25 | 9 | 31 | 49 | |
| Total | 256 | 176 | 249 | 212 | 186 | 234 | 216 | 205 | 203 | 238 | 225 | |
| | in % | | | | | | | | | | | |
| None | 7,8 | 14,8 | 10,0 | 1,9 | 8,6 | 3,8 | 69,4 | 25,9 | 14,3 | 1,3 | | |
| Elementary | 48,4 | 47,2 | 39,4 | 53,3 | 69,4 | 51,7 | 13,9 | 50,7 | 49,8 | 45,8 | 35,1 | |
| Secondary | 37,9 | 14,2 | 41,8 | 29,7 | 21,5 | 40,2 | 12,5 | 11,2 | 31,5 | 39,9 | 43,1 | |
| Univ. Entr. | 5,9 | 23,9 | 8,8 | 15,1 | ,5 | 4,3 | 4,2 | 12,2 | 4,4 | 13,0 | 21,8 | |
| Total | 100,0 | 100,0 | 100,0 | 100,0 | 100,0 | 100,0 | 100,0 | 100,0 | 100,0 | 100,0 | 100,0 | |

In table 5 the data are given on the cities and groups, pertaining to the occupational level of the respondents that worked during the two years preceding their emigration out of their country of origin. Selected are those who arrived in the country of destination at an age of 18 or older. Respondents who did not gain any working experience before coming to the country of destination are excluded from the table. Comparing the total numbers of the different cities and groups between table 3 and 5 (in table 4), one has to conclude that a sizable number of immigrants that came to the destination country as adults, did not attain any prior working experience. In this respect, the figures for Amsterdam stand out: here only a minority of the immigrants who arrived as adults had at that moment acquired any working experience in their home country. Especially the contrast between the Turkish immigrants in Amsterdam at the one hand and those in Bielefeld and Vienna on the other is noteworthy. This low participation in the pre-migration labour market is to large degree explained by gender differences. The difference in male and female pre-migration working experience is especially large in the case of the Turkish and Moroccan immigrants in Amsterdam, and among Hindus in Lisbon and Turks in Vienna (see table 4abc in the appendix).

Table 4:

| | Bielefeld | | Vienna | | Lisbon | | Amsterd | | Rotterd |
|---|-----------|--------|--------|--------|---------|--------|---------|--------|---------|
| | Serbia | Turkey | Serbia | Turkey | CapVerd | Hindus | Morocco | Turkey | CapVerd |
| Total number of respondents arriving in the destination country at the age of 18 or older: | | | | | | | | | |
| 100% | 256 | 176 | 249 | 212 | 186 | 234 | 216 | 205 | 203 |
| Those from this group who attained working experience prior to leaving their country of origin: | | | | | | | | | |
| Abs. | 158 | 126 | 130 | 129 | 125 | 124 | 94 | 69 | 113 |
| In % | 61,7 | 71,6 | 52,2 | 60,8 | 67,2 | 53,0 | 43,5 | 33,7 | 55,7 |

If we turn to table 5 and look at those who did work in their country of origin before arriving as adults in the immigration country, we notice that for most groups, the grand majority of the immigrants had gained experience in occupations on the levels 4 and 5, i.e. skilled or unskilled (elementary) professions. Unskilled elementary professions (level 5) were held by sizable parts of all groups, except for the Hindus, who gained experience in job level 3 in the grand majority of cases. Only the groups that came to the Netherlands acquired in

majority their working experience in unskilled labour (level 5), for the Amsterdam respondents from Morocco it is almost 90 percent.

Table 5: City and group by occupational level of respondent in country of origin, respondents 18 years or older on arrival in immigration country

| | Bielefeld | | Vienna | | Lisbon | | Amsterd | | Rotterd |
|-------|-----------|--------|--------|--------|---------|--------|---------|--------|---------|
| | Serbia | Turkey | Serbia | Turkey | CapVerd | Hindus | Morocco | Turkey | CapVerd |
| | Absolute | | | | | | | | |
| 1 | 1 | 3 | 4 | 5 | 1 | 3 | 1 | 1 | 3 |
| 2 | 5 | 1 | 6 | 2 | 7 | 9 | 1 | 1 | 10 |
| 3 | 11 | 13 | 22 | 16 | 39 | 88 | 3 | 11 | 10 |
| 4 | 92 | 54 | 45 | 56 | 51 | 19 | 5 | 18 | 9 |
| 5 | 48 | 49 | 53 | 50 | 27 | 5 | 83 | 38 | 80 |
| 6 | 1 | 6 | | | | | 1 | | 1 |
| Total | 158 | 126 | 130 | 129 | 125 | 124 | 94 | 69 | 113 |
| | in % | | | | | | | | |
| 1 | ,6 | 2,4 | 3,1 | 3,9 | ,8 | 2,4 | 1,1 | 1,4 | 2,7 |
| 2 | 3,2 | ,8 | 4,6 | 1,6 | 5,6 | 7,3 | 1,1 | 1,4 | 8,8 |
| 3 | 7,0 | 10,3 | 16,9 | 12,4 | 31,2 | 71,0 | 3,2 | 15,9 | 8,8 |
| 4 | 58,2 | 42,9 | 34,6 | 43,4 | 40,8 | 15,3 | 5,3 | 26,1 | 8,0 |
| 5 | 30,4 | 38,9 | 40,8 | 38,8 | 21,6 | 4,0 | 88,3 | 55,1 | 70,8 |
| 6 | ,6 | 4,8 | | | | | 1,1 | | ,9 |
| Total | 100,0 | 100,0 | 100,0 | 100,0 | 100,0 | 100,0 | 100,0 | 100,0 | 100,0 |

1. Legislator/ senior government official
2. Technician/ professional
3. Clerk/ service worker/ salesperson, Low civil servant
4. Craftsman/ skilled worker
5. Elementary occupation/ labourer, Cleaning/washing
- (6. Armed forces)

Respondents were asked for the size of the community they lived in for the longest period before they reached adulthood. Did this place had a population of more than 5.000, or did it have less than 5.000 inhabitants? We have dubbed this distinction the village-city dichotomy. The group with the most conspicuous urban background are the Hindus in Lisbon. Also striking are figures from Stockholm: Moroccans as well as Turks there grew up predominantly in an urban setting. Here, the contrast with Amsterdam remarkable, where, on the contrary, Moroccans and Turks have in majority a rural background. In this respect, the Turks in Amsterdam stand out in comparison with the three other Turkish groups, which all seem to come from a more urban environment. Serbs in Bielefeld and Vienna also seem to have opposed profiles, although the difference is less pronounced compared with then differences among the Turkish groups. Capeverdians in Rotterdam are coming from smaller communities on the Islands than those in Lisbon.

Table 6: Living environment in country of origin during main part of youth

| | Bielefeld | | Vienna | | Lisbon | | Amsterd | | Rotterd | | Stockh | |
|---------|-----------------|--------|--------|--------|----------|--------|---------|--------|----------|---------|--------|--------|
| | Serbia | Turkey | Serbia | Turkey | Capeverd | Hindus | Morocco | Turkey | Capeverd | Morocco | Turkey | Turkey |
| | absolute | | | | | | | | | | | |
| city | 173 | 183 | 125 | 97 | 140 | 285 | 107 | 135 | 112 | 250 | 258 | |
| village | 123 | 97 | 150 | 62 | 150 | 10 | 177 | 181 | 189 | 50 | 42 | |
| Total | 296 | 280 | 275 | 159 | 290 | 295 | 284 | 316 | 301 | 300 | 300 | |
| | in % | | | | | | | | | | | |
| city | 58,4 | 65,4 | 45,5 | 61,0 | 48,3 | 96,6 | 37,7 | 42,7 | 37,2 | 83,3 | 86,0 | |
| village | 41,6 | 34,6 | 54,5 | 39,0 | 51,7 | 3,4 | 62,3 | 57,3 | 62,8 | 16,7 | 14,0 | |
| Total | 100,0 | 100,0 | 100,0 | 100,0 | 100,0 | 100,0 | 100,0 | 100,0 | 100,0 | 100,0 | 100,0 | 100,0 |

In terms of educational background, labour skills and urban experience, Turks and - especially - Moroccans in Amsterdam seem to have been the least prepared for life in European cities.

Ordered Logit Regression

In logistic regression that we present in this paragraph, we first looked at the influence of the schooling of the parents of the respondent. We found that parents' education has a significant positive effect on the probability of attaining a higher level of occupation. Of the two variables included, the educational background of the mother gives a somewhat larger effect than that of the father. In the second regression, we controlled for age, living environment in the country of origin, and gender. Here we found that, besides the educational attainment of the parents, gender and pre-migration living environment have a significant impact on the professional level one attains in one's work in the country of destination. Again, the education of the parents has a positive impact on the probability of attaining a higher job level. Being a male and having grown up in a city area in the home country increase the probability of achieving a better qualified position in work.

Table 7: Ordered Logit Regression Results:

| Dependent variable | Model 1 | Model 2 | Model 3 | Model 4 |
|--|---------------------|---------------------|---------------------|---------------------|
| Independent variables | | | | |
| Father's education | -0.510 (0.085)** | -0.454 (0.092)** | -0.186 (0.138) | -0.148 (0.141) |
| Mother's education | -0.519 (0.110)** | -0.489 (0.119)** | 0.048 (0.168) | 0.149 (0.172) |
| Gender | | 0.575 (0.126)** | 0.498 (0.195)* | 0.369 (0.198) |
| Age at arrival (age >=18) | | 0.005 (0.010) | 0.019 (0.013) | 0.028 (0.013)* |
| Living environment while growing up | | -0.852 (0.122)** | -0.570 (0.172)** | -0.344 (0.183) |
| Respondent's education in home country | | | -0.251 (0.124)* | -0.375 (0.132)** |
| Respondent's job level in home country | | | 1.086 (0.103)** | 0.887 (0.108)** |
| Group = Hindu's | | | | -1.160 (0.289)** |
| Group = Moroccans | | | | 0.339 (0.414) |
| Group = Serbians | | | | 0.093 (0.225) |
| Group = Turks | | | | 0.568 (0.272)* |

Standard errors in parentheses

* significant at 5%; ** significant at 1%

Dependent variable : job level at the middle moment in the post-migration life course

However, when we also control for schooling and job level of the respondent in the country of origin, parents' educational level loses its significance. Then, the variables that significantly affect the post-migration job level are gender, pre-migration living environment, and the educational level and working experience of the migrant. Better educated males who came from an urban environment in their country of origin have better chances to find work in the higher positions. Moreover, working experience in the home country also significantly affects the professional position in the destination country. Immigrants with working experience in their home country tend to continue working on the same level after immigration. By and large, these results prevail when we control for the different home countries. When controlling for country of origin, we found that Hindu immigrants attain significantly better job levels than those from the Cape Verdes, while immigrants from Turkey remain in the lower occupational strata of the labour market to significant degree, compared to the Cape Verdeans.

From the above regression analysis, we can assess the direction of the effect, yet not the marginal effect for specific job levels. Below, we calculated the marginal effect of the third regression. The results can be found at table below.

Table 8: Marginal Effect Count for Model 3

| Occupation | Level 1 | Level 2 | Level 3 | Level 4 | Level 5 |
|---|-------------------------|------------------------|------------------------|-------------------------|-------------------------|
| Independent variables | | | | | |
| Father's education | .0007759 (.00065) | .0033773 (.0025) | .0229451 (.01709) | .0191281 (.01438) | -.0462265 (.03431) |
| Mother's Education | -.0002 (.00071) | -.00086 (.0030) | -.005896 (.02069) | -.0049153 (.01728) | .0118788 (.04171) |
| Gender | -.0019 (.00098) | -.008147 (.0033)** | -.057084 (.02074)** | -.0539485 (.02274)* | .1210444 (.04599)** |
| Age at arrival (age >=18) | -.00008 (.00006) | -.000344 (.0002) | -.00234 (.00158) | -.0019491 (.00134) | .0047103 (.00319) |
| Living environment while growing up | .002321 (.00113)* | .0101024 (.0035)** | .0686976 (.02032)** | .0587545 (.01898)** | -.1398758 (.04134)** |
| Respondent's education in home country | .0010436 (.00065) | .0045426 (.0024) | .0308616 (.01542)* | .0257277 (.01303)* | -.0621754 (.03078)* |
| Respondent's job level in home country | -.0045173 (.00176)** | -.0196632 (.0041)** | -.133589 (.01542)** | -.1113659 (.01663)** | .2691351 (.02561)** |

Standard errors in parentheses

* significant at 5%; ** significant at 1%

Occupational levels at the middle moment in the post-migration life course:

1. Legislator/ senior government official
2. Technician/ professional
3. Clerk/ service worker/ salesperson, Low civil servant
4. Craftsman/ skilled worker
5. Elementary occupation/ labourer, Cleaning/washing

This method is used to count the marginal effect of the chosen exogenous variables on the job level of the respondents (middle moment). With this method, we could more accurately analyse the effect of each independent variable on each specific job level. From the calculation, we found that the schooling of respondents before immigration has a positive significant effect on the probability of attaining a job at all but the lowest occupational level. This relation is significant for all except for legislator and technician level. Both of these last levels are however significant at the 10% level. Looking at it from the other side, pre-migration schooling has a significant negative effect on getting a job at this lowest level (elementary occupations).

Correspondingly, having grown up in an urban environment, increases the probability that one is able to avoid employment at the lowest occupational level. Migrants from rural areas are more likely to work at the lowest occupational level. Similar trends apply for respondent's job level in his/her country of origin.¹⁵ Similarly, men are, compared to women, significantly more often engaged at the four highest occupational levels at the middle of their post migration life course.

¹⁵ In table 11, 'Respondent's job level in home country' has a negative effect on job level 1-4, while it has a positive impact on job level 5. Because of inverse ordinal scales, this should be read as follows: the lower the level of the last occupation before immigration, the lower the occupational level reached at the middle of the post-migration life course.

Summary and Conclusion

In this chapter, we have looked into the influence of so-called pre-migration factors on the social position of immigrants. In this respect, we have asked ourselves to what degree the social position of first generation immigrants, as conveyed by the status of their profession, is affected by factors pertaining to their experiences in their country of origin. The explaining variables chosen here are of a special nature. They are sought in the experiences of the respondents in their country of origin, more specifically in the educational capital of their parents, the character of the place where they grew up (town or village), their own achieved level of schooling, and their experiences in the labour market before they left the country. As this analysis should be seen as a first exercise using the LIMITS dataset in causally relate experiences before and after migration, the focus is here on the explanans, rather than on the explanandum. Of course, already in this paragraph we aim to give an explanation for the social position of our respondents in their host country. We have chosen, as the main indicator for social position, the level of occupation reached by the respondents when they were in the middle of their post-migration life course. However, the economic activities of the survey population (in particular their relation to the labour market, their sector of industry and their level of occupation) are dealt with more thoroughly in another paragraph below. This part of the analysis merely explores, in a tentative way, the relationship between pre-migration background and post-migration life course.

We found that parents' education has a significant positive effect on the probability of attaining a higher level of occupation in the destination country. Striking in this respect is that the educational background of the mother gives a somewhat larger effect than that of the father. Also, the place in which one has grown up in the home country (either a more rural, or a more urban environment) has a significant impact on the professional level one attains in one's work in the country of destination. Being a male (gender has, as could be expected, a significant influence) and having grown up in a city area increase the probability of achieving a better qualified position in work in the immigration society. Taking these influences into account, the education of the parents has still a positive impact on the probability of attaining a higher job level. Only after controlling for schooling and job level of the respondent in the country of origin, parents' educational level loses its significance, which means that educational level of respondents and that of their parents in the country of origin are strongly interrelated.

From this, we should not conclude that differences in educational level between the generations are insignificant. In fact, a consistent improvement in pre-migration educational attainment can be observed when we compare the figures of the immigrants with those of their parents. This improvement is most outspoken in the case of the Serbs in Bielefeld and Vienna, and the Hindus in Lisbon, especially when we look at the increase of the share of certificates in secondary education. Moroccans in Amsterdam have by far the most humble educational profile; here an especially conspicuous contrast can be observed with Moroccans in Stockholm. Comparing the sexes, we see huge differences to the advantage of the male respondents. The differences seem to be of the same magnitude as those between the mothers and fathers of the respondents. However, differences between the male and female respondents are significantly less large compared to the differences between the male respondents and their fathers. Female immigrants have considerably improved their schooling level compared to that of their fathers in all groups, including those with the lowest educational profile, already before coming to the destination country. The difference with their mothers' schooling level is still very much larger.

Working experience of immigrants in the home country also significantly affects the professional position in the destination country. Immigrants with working experience in their

home country tend to continue working on the same level after immigration. By and large, these results prevail when we control for the different home countries. When controlling for country of origin, and taking the Cape Verdes as point of reference, we found that Hindu immigrants attain significantly better job levels than those from the Cape Verdes, while immigrants from Turkey remain in the lower occupational strata of the labour market to significant degree.

We found that the schooling of respondents before immigration has a positive significant effect on the probability of attaining a job at all but the lowest occupational level (elementary occupations). Correspondingly, having grown up in an urban environment, increases the probability that one is able to avoid employment at the lowest occupational level. Migrants from rural areas are more likely to work at the lowest occupational level. Similar trends apply for respondent's job level in his/her country of origin. Similarly, men are, compared to women, significantly more often engaged at the four highest occupational levels at the middle of their post migration life course.

Implications for policy should be formulated prudently at this stage. It seems however clear that acquired skills through education and work in the country of origin have played an important role in succeeding to escape the most unskilled and elementary jobs at the bottom of the labour market. This lowest occupational level constitutes the echelon of economic activity in which Western European countries have welcomed labour migrants in the 60's, 70's and 80's of the last century, and represents also the category of labour in which so many employees (among which labour migrants were so prominent) remained without work over the past decades, when major transformations in the European economy materialised. As pre-migration skills obviously do make a difference, we recommend that policy be less fixated on the 'danger of immigration', and allow for a more balanced approach to the phenomenon, considering seriously the skills and education which today's immigrants bring with them when they come to Europe.

3.3 Structural integration – activities

Summary

In the following part of the report we analyse the employment activities of the migrant respondents interviewed in the LIMITS project in their evolvement over time. Important issues addressed include the development of participation rates over time, the development of unemployment, and the economic sectors and branches which migrants tend to work in. The obtained results from the data are compared to data from other relevant sources and discussed in the light of contextual differences regarding migration and social policy between the countries (cities) included. Furthermore, a multivariate model exploring a migrant's propensity to experience an upward occupational move during his or her migration trajectory is introduced and discussed. Overall, the paper provides valuable insights into the labour market outcomes of migration trajectories in six European cities applying a longitudinal perspective which has so far been almost entirely missing from comparative migration research.

Migration and the Labour Market: The Structural Integration of Migrants

More than half of the almost 200 million international migrants worldwide are economic migrants. Many of them are low-skilled workers, but the number of highly qualified professionals moving between countries is rapidly increasing too.

European economies are structurally dependent on foreign working force. Not only the industry and the construction sector, but also various kinds of personal services and routine tertiary occupations are performed by immigrants. Even if other alternatives were fully put into action, such as a larger female participation in the labour market or the delay of retirement age, labour migrants would still be needed. The demographic problem – the ageing of the European populations – and the persistent gap of economic and social development between the North and the South, namely the large wage differences, are reasons strong enough for intense international economic migration to continue (GCIM Report, 2005).

The labour market is at the centre of migrants' lives and expectations, especially when it comes to labour migration. Labour market situations, through constraints and opportunities, have long-lasting implications for the processes of integration of migrants and their families into the host society.

To understand the type of integration that migrants experience in the receiving societies' labour markets, we must consider four different sets of elements: the composition and demands of the labour market; the migrants' social and cultural characteristics, such as the skills and credentials they have as well as the cultural values they adhere to; the economic context, for instance, a higher or lower unemployment rate; and the policies regulating their access to the labour market.

The participation of immigrants in the European labour markets was early described by the theory of labour market segmentation (Piore, 1979; Castles and Kosack, 1973; Castles and Miller, 1993). According to it, the labour market is not homogeneous. There are different stratified segments in it and migrants are not randomly distributed through these segments. If we leave aside the specific case of professional migrants concentrate in the low paid, more risky and socially unattractive jobs, which are more and more perceived as immigrants' jobs.

Labour market segmentation theory and research shows that the increasing participation of immigrants in the economy of Western nations does not at all mean the displacement of the native-born active population. Relatively high unemployment rates among natives can easily

coexist with foreign inflows into the labour market, because natives and foreign workers do not belong to the same economic world and are not competing with each other. If labour migrant populations present significant ethnic contrasts vis-à-vis the host society, labour market segmentation becomes an ethnic segmentation.

A more comprehensive model of analysis of the labour market situation of immigrants and their descendants is presented by Alejandro Portes and his colleagues (Portes and Manning, 1986; Portes, 1995). Drawing upon extensive research in the US, they propose a typology of modes of incorporation of migrant populations into the receiving economy and society, which differentiates four modalities: incorporation into the primary labour market, incorporation into the secondary labour market, ethnic enclaves and middleman minorities.

Immigrants in the primary labour market are professionals or high-skilled workers, they are small in number and spatially scattered both at the national and local level. They have a very good command of the language of the host society, a high knowledge of their institutions and benefit from the acceptance by the receiving population. Usually they do not participate in ethnic associations or institutions, they have a low ethnic resistance and there is no institutional differentiation in the ethnic community, which in fact barely exists as such.

In the secondary sector, there are large migrant populations composed by manual workers, spatially concentrated at the local level and dispersed at the national level. They have a bad command of the language of the host society and don't know much about its institutions. The typical reaction of the receiving community is discrimination. Their ethnic resistance is higher than in the previous case, but their participation in ethnic associations is small, weakening the ethnic institutional fabric.

Ethnic enclaves are social settings where large migrant populations concentrate in space, both at the local and the national level. The social composition is heterogeneous, made of entrepreneurs, professionals and workers. There is a full institutional differentiation within the ethnic community. The participation rates in ethnic associations are high and the ethnic resistance strong. They have a command of the language of the receiving society and have a good knowledge of its institutions. Hostility is the typical reaction around them.

Finally, middleman minorities are small in size, concentrated at the national level, but scattered at the local level, and composed by merchants, small entrepreneurs and a few professionals. Their ethnic social and economic institutions are strong and their ethnic resistance is high. They are familiar with the language and the institutions of the host society, which reacts towards them with a double pattern: acceptance by the elite, hostility by the masses.

These modes of incorporation overlap with another type of labour market segmentation, the one that has to do with the degree of economic informality. Migrants of the secondary labour market and members of middleman minorities are often overrepresented in the informal economy, which can be rather large in some European countries (Mingione and Quassoli, 2000; Fakiolas, 2000; Baganha, 2000). The various forms of discrimination suffered by immigrants in the labour market can be aggravated in informal economy, especially when they are illegally in the country.

Another important issue related to the situation of immigrants in the labour market is unemployment. Immigrants are often at a greater risk of unemployment than native-born people. Data in Table 9 shows this in a very clear way.

Table 9: Labour market indicators for natives and foreign-born, 2003 (percentages)

| | Native participation rate | Foreign-born participation rate | Foreign-born in % of total labour force | Native unemployment rate | Foreign-born unemployment rate |
|-------------|---------------------------|---------------------------------|---|--------------------------|--------------------------------|
| Austria | 71,3 | 73,9 | 9,2 | 4,2 | 8,3 |
| Germany | 73,0 | 66,3 | 9,0 | 9,1 | 15,7 |
| Netherlands | 78,0 | 65,8 | 3,8 | 2,9 | 8,9 |
| Portugal | 72,4 | 79,9 | 2,7 | 6,3 | 9,1 |
| Sweden | 79,3 | 70,7 | 4,6 | 4,8 | 11,1 |

Source: OECD, Trends in International Migration: SOPEMI 2004 Edition.

In all the five countries in question, the immigrant's unemployment rate is higher than the one of natives. In Sweden and the Netherlands, the gap is particularly large. The smallest difference between the two rates is to be found in Portugal.

It would be important to know how soon unemployed immigrants and unemployed native-born find a new job. Some studies reveal that it is easier for the former because they are more likely to take another job quickly even at a lower wage (Sassen, 1995).

A full understanding of immigrants' labour market situation requires a synchronic perspective as much as a diachronic one. No matter how important it is to describe their occupational distribution at a certain point in time, a broader perspective is provided by the study of their trajectories in the labour market over time. Do economic immigrants change their occupational status over time? Are they able to escape the lower positions in the socio-economic ladder where most of them stand at the beginning of their stay in the receiving societies?

For a long time now, class analysis and social mobility studies tell us that the point of arrival of social trajectories in the labour market is not independent of the point of departure. They also tell us that the effects of social origin, the level of education and other family and individual assets, should be considered when we try to measure the real chances of upward social mobility (Boudon, 1979; Bourdieu, 1979; Goldthorpe and Erikson, 1993; Wright, 1997).

This is no different with respect to immigrants. For cultural reasons – e.g., not having enough command of the language of the receiving society –, or for being discriminated against in the labour market, it might be even harder for them to climb the social hierarchy.

In the typology mentioned above, Portes and Manning define the level of mobility chances available in each mode of incorporation. Immigrants in the primary labour market have high chances of mobility by formal means. Those who belong to ethnic enclaves have also many opportunities of social improvement, but through informal channels. Informal means are also the ones available for people in middleman minorities, which have only average opportunities for moving up. For those immigrants integrated in the secondary sector, which form the largest group in the EU as a whole, the chances of upward mobility are low.

Surprisingly, studies on intra-generational social mobility of first generation immigrants in the European context are quite rare. Searching important journals in the field, like *Ethnic and Racial Studies*, *Journal of Migration and Ethnic Studies*, *Immigrants & Minorities* or *Revue Européenne des Migrations Internationales*, we can hardly find articles addressing this topic in European countries.

The few studies addressing it conclude that employed as well as self-employed immigrants have a hard time moving up to better social positions (Pécoud, 2003; Reyneri, 2004). But given the lack of more studies, and more extensive ones, it is impossible to give a full answer to a major question concerning the social integration of immigrants into the receiving societies: Does the ethnic labour market segmentation we can find in many European countries decrease over time?

Comparing occupational trajectories of immigrants with the ones of native-born individuals with the same age and level of education at the same starting point in the labour market, and finding out if they follow the same mobility regimes, would provide a relevant answer.

Labour Market Inclusion of Immigrants in Six European Cities: Selected Results from LIMITS-Project

Drawing on event history data from the LIMTS EU-Project, the following paper attempts to assess the labour market inclusion (i.e. structural integration¹⁶) of first generation immigrants in six European cities: Bielefeld, Vienna, Stockholm, Lisbon, Amsterdam, and Rotterdam.

Throughout Europe, immigrants or foreigners tend to occupy a weaker socioeconomic position than the native-born population and hardly experience an upward mobility in their occupational status during their migration trajectories (Büchel and Frick 2005: 179). Based on data from the European Household Panel (ECHP), Tsakloglu and Papadopoulos (2001) argue that the looser the links of the individuals or the households with the labour market, the higher the risk for their social exclusion, although many qualitative similarities and quantitative differences across Europe were identified. In general, access to and participation in the labour market is considered of crucial importance in migration research when theorising integration processes.

The goal of this subchapter is to provide a detailed description of migrants' labour market outcomes (employment rates, percentage of unemployment, employment sectors, job mobility etc.) from a comparative perspective. The following issues are particularly relevant. First, it is of crucial importance whether migrants improve their economic situation with increasing duration of stay in the host country. Second, we seek to show whether the country/city-specific institutional aspects such as restriction of access to the labour market and the social security system or the countries' immigration policies foster or hinder the structural integration of migrants. More precisely, to what extent can institutional (contextual) conditions account for observed cross-group and cross-city differences concerning labour market outcomes such as occupational mobility?

To answer the posed questions we make use of the longitudinal perspective that the LIMITS data allow. Thus, the unit of our analysis when comparing migrants' economic

¹⁶ Esser (2001) describes the allocation of positions on the labour market or in the educational system in modern differentiated societies as *placement* or *structural integration* (assimilation). According to Esser, labour market assimilation exists, when different groups show the same mode of labour market inclusion, i.e. when the labour force distribution along the economy sectors is the same for all groups.

performance within and between groups and cities are the individuals' employment trajectories in the host countries since the time point of their immigration.¹⁷

Data Issues: employment categories

The categories that are going to be used for the further analysis are defined using the information from respondents' activity types over time, i.e. we make use of the individual employment biography (episodes). In a first step we define broad activity types from variable A04 (see Codebook p. 101):

- employed (full-time, part-time, self-employed. Without casual work): categories 1,2,4,15; coded as 1
- casual work: categories 3,12; coded as 2
- unemployed: category 5; coded as 3
- out of labour force: categories 6,7,8,9,10,11,13,14; coded as 4

The total number of episodes in these categories is the following:

| (1) employed | (2) casual work | (3) unemployed | (4) out of labour force |
|-----------------|--------------------|-------------------|----------------------------|
| 8420 | 632 | 1178 | 3471 |

As we can see, casual employment does not play any decisive role, no more than 632 episodes can be classified into this category.

A breakdown by city shows that an exception might be the situation in Lisbon:

| City | Bielefeld | Vienna | Stockholm | Lisbon | Amsterdam | Rotterdam |
|---------------------|-----------|--------|-------------------|--------|-----------|-----------|
| employed | 1391 | 1662 | 2240 | 1551 | 825 | 751 |
| casual work | 34 | 84 | 178 | 336 | 0 | 0 |
| unemployed | 200 | 257 | 436 ¹⁸ | 90 | 123 | 72 |
| out of labour force | 574 | 621 | 718 | 782 | 542 | 234 |

The following sections present some preliminary descriptive analysis of the available data concerning basic labor market outcomes. In Section 1, we focus on employment rates over time and across cities and groups, whereas in Section 2 we center on the occupational status and on the differences with regard to the employment sectors. While Section 3 deals with the percentage distribution of unemployment over time and between cities and groups, the central focus of Section 4 is the presentation of two logit models on upward mobility in occupations and on unemployment risk.

Section 1: Employment

In 2003, foreigners and immigrants accounted for a significant portion of the labor force in the European countries included in the LIMITS project: Austria (9.2%), Germany (9%), Sweden (4.6%), Netherlands (3.8%), and Portugal (2.7%), although not to such an extent as in

¹⁷ Definition of the LIMITS-sample: *foreign born irrespective of current nationality, at least 35 years of age and at least 15 years of stay in the host country*. Thus, $n = 6 \text{ cities} * (\sim 600 \text{ respondents per city from 2 migrant groups, except for Rotterdam (300 respondents)}) = \sim 3300 \text{ respondents}$.

¹⁸ Remark: The high percentage of unemployed just after arrival in Stockholm is probably due to the merging of several other out-of-labour-force categories with the unemployment category in the Stockholm questionnaire.

Switzerland (21.9%) or Luxemburg (45%) (OECD 2005: 58f)¹⁹. Although the foreign and immigrant labor force is growing in most OECD countries, the labour market participation rate among foreigners is still usually below that of nationals. For 2003, this was particularly evident in Denmark, the Netherlands and Sweden and, to a lesser extent, in Belgium. On the other hand, for the recent immigration countries of Southern Europe and for Luxemburg and Austria, where employment-related migration is important, the participation rate for foreign men and women is equal or higher than that for nationals (OECD 2005: 59f).

Figures 1 to 4 show the employment rates for the LIMITS sample by sex, group and city at three points in time and over the individual migration trajectories. Whereas within each migration biography, detailed information about labour market participation, employment branches, type of occupation etc. was gathered just for three points in time: 1) one year after arrival, 2) middle of stay and 3) the interview date (2004), information on the employment status (e.g. full-time employed, unemployed, casual work etc.) is available for the complete migration course.

The overall trend concerning the migrants' labour market participation at the beginning of the individual migration process shows a sizeable gender bias (Figure 1a,b,c). Throughout the cities under study, the percentage of employed migrant men one year after arrival to the host country is considerably higher than of the employed migrant women. However, except for the groups of the Moroccans and the Turks in Amsterdam, the labour force participation of female migrants improves over time, although it rarely reaches the level of migrant males. Capeverdian women in Rotterdam and Serbian female migrants in Bielefeld and Vienna show a strikingly different mode of participation in the labour market compared to all other female migrants over time. While 76% of the interviewed Capeverdian women (Table 10-12 in the Appendix) are still employed at the time of the interview²⁰ (there is no decline in the employment rate from the second to the third point in time for this group), the percentage of employed Moroccan women for the time of the interview is just 12. Throughout the entire migration histories, the labour market inclusion of the last is noticeably lower than of all other groups in the study. This result is of particular interest since it does not recur for female Moroccans in Stockholm (70% at the time of the interview, see Table 12 in the Appendix), even supposing that this may partly be due to a sampling method bias (snowballing).

According to the OECD Annual Report *Trends in International Migration 2004*, foreign or foreign-born women participate proportionally less in the labour market than do female nationals. The gap in the participation rate is 10% or more in Austria, Germany, the Netherlands and Sweden (OECD 2005: 60). Nevertheless, this result varies between females' country of origin and depends on socio-demographic characteristics.

Figure 4 and 5 show the trend in the employment rates from arrival through the first 16 years of migration. It seems obvious that except for male Moroccans in Amsterdam, the employment rate for all migrant groups under study remain stable on a relatively high level.

A significant drop-down in the overall employment rates from the middle of the migration trajectory to the time of the interview is observable for almost all groups and cities (except for the group of the Cape Verdians in Rotterdam and for both Moroccans and Turks in Stockholm). Within groups and across cities we can hardly find considerable differences over time, i.e. the relative differences remain constant. Particularly males are more affected by declining employment rates than females. This result is produced by at least two factors. On the one hand, the demographic characteristics of our samples (at least 35 years old and at least 15 years of stay in the country of immigration, i.e. primarily first generation migrants) induce

¹⁹ Source data: Labour Force Surveys

²⁰ in Rotterdam 2005, in all other cities 2004

that at the time of the interview many of our respondents have already reached retirement age. On the other hand, the analysis of the proportions of unemployed over time shows an overall increase in unemployment from the second to the third point in time.

Following the OECD Annual Report, employment growth remained weak in 2003 in the OECD zone as a whole, even in those countries that saw significant economic growth. Employment declined in nearly half of the OECD countries in 2003. The forecasts for 2004 and 2005 pointed to gradual but moderate employment recovery in all member countries (OECD 2005: 58).

Figure 1a,b,c: Percentage of employed by sex, group and city. The groups are (in the order of the figure): Amsterdam: Moroccans, Turks; Bielefeld: Serbs, Turks; Lisbon: Cape Verdians, Hindus; Rotterdam: Cape Verdians; Stockholm: Moroccans, Turks; Vienna: Serbs, Turks.

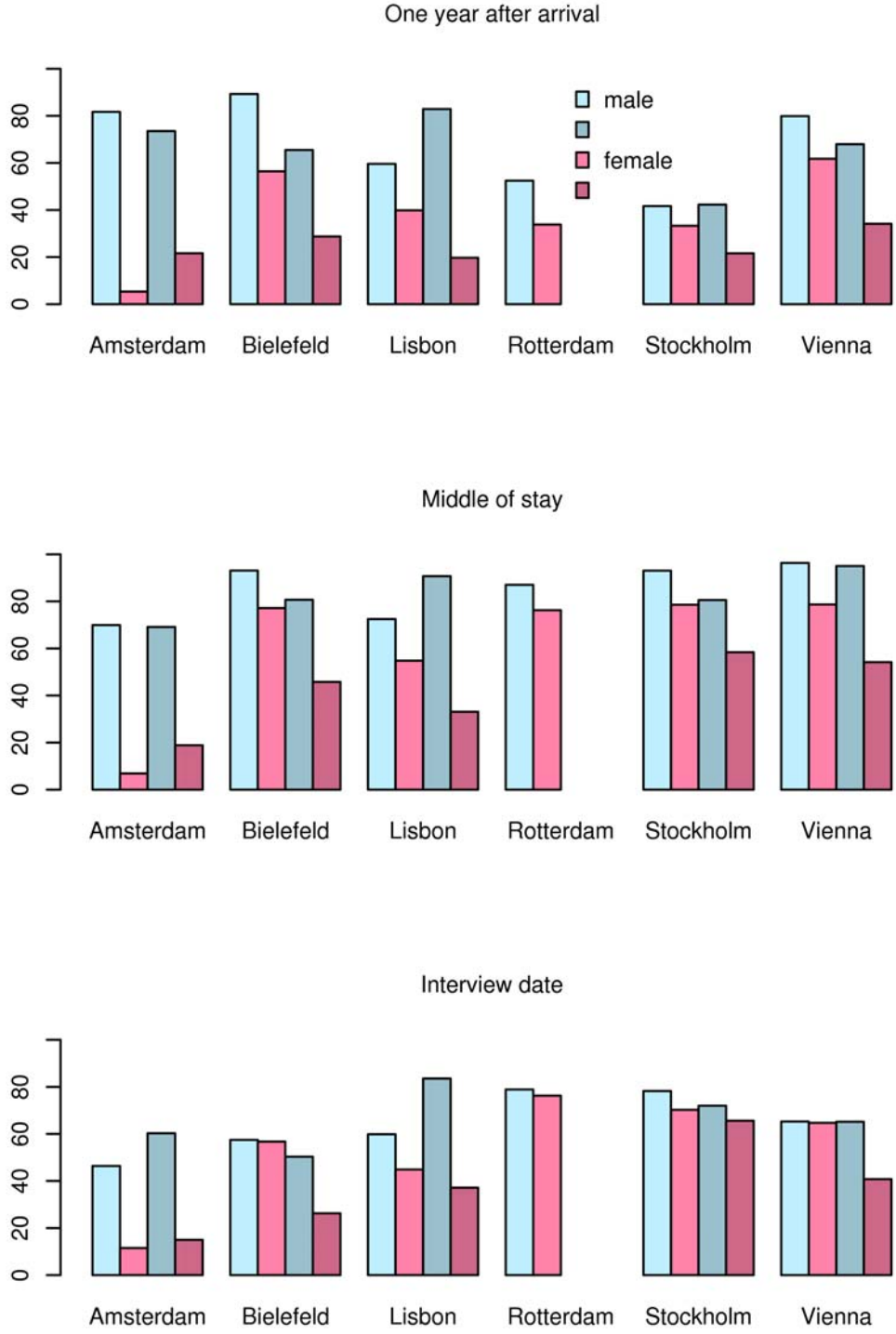


Figure 2: Percentage of employed. Turks by sex and city, from 1966 to 2004.

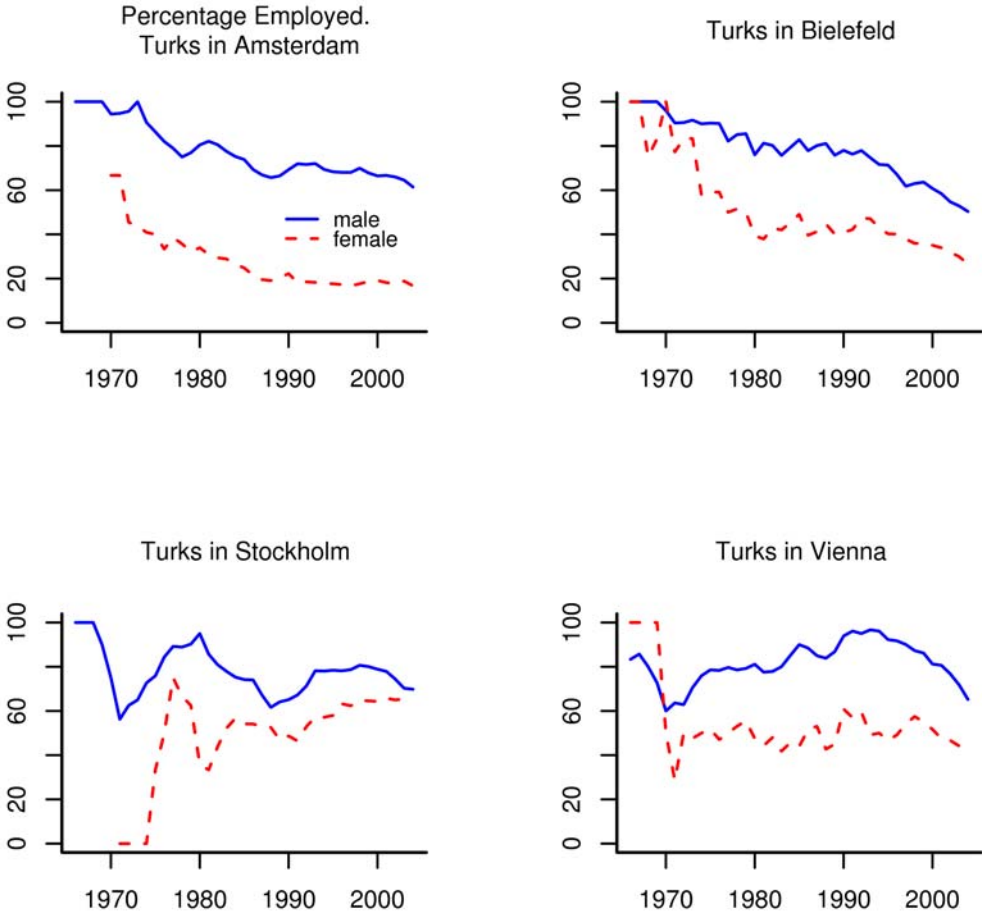


Figure 3: Percentage of employed. Other groups by sex and city from 1970 to 2004.

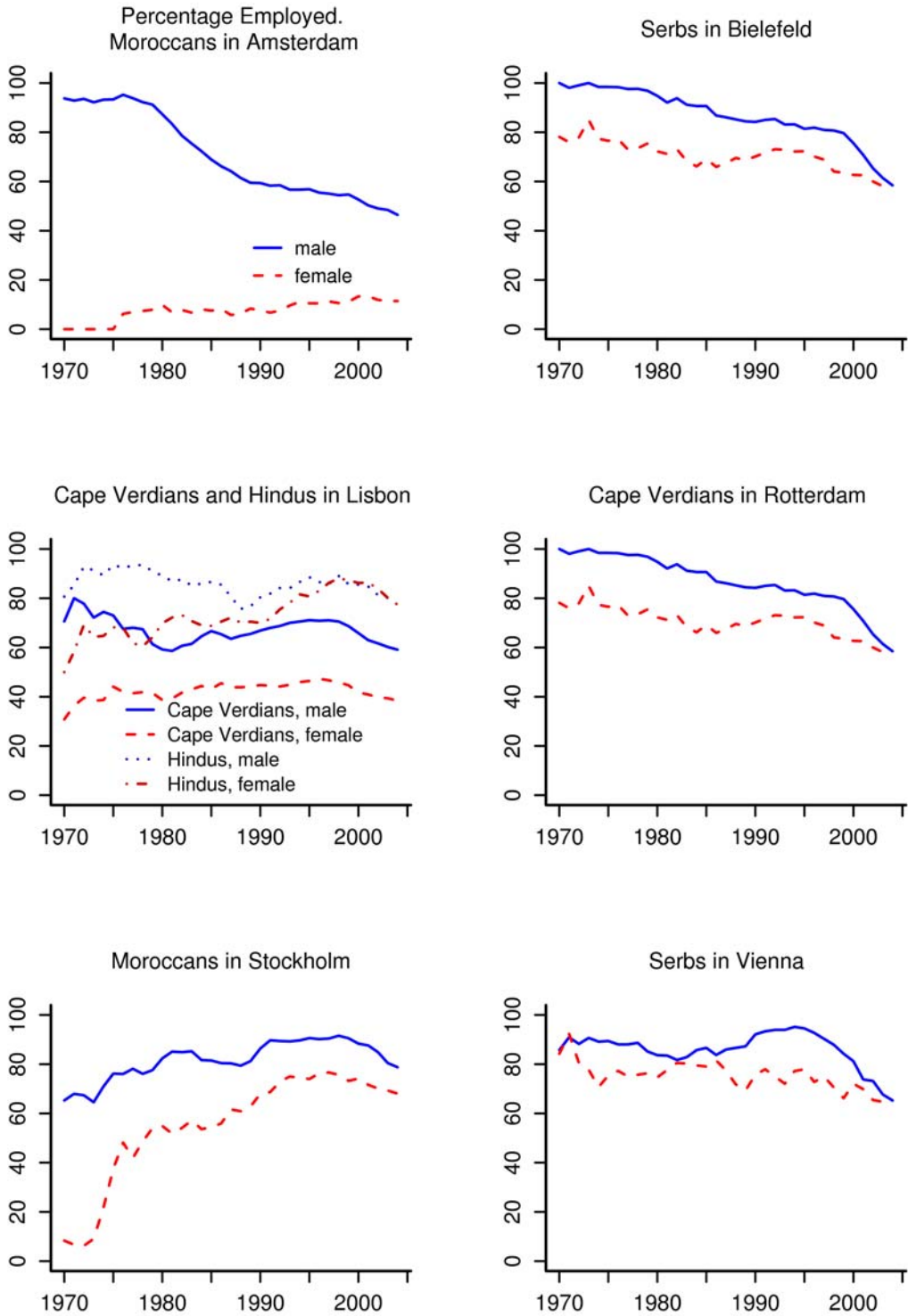


Figure 4: Percentage of employed. Turks by sex and city. From arrival through the first 16 years.

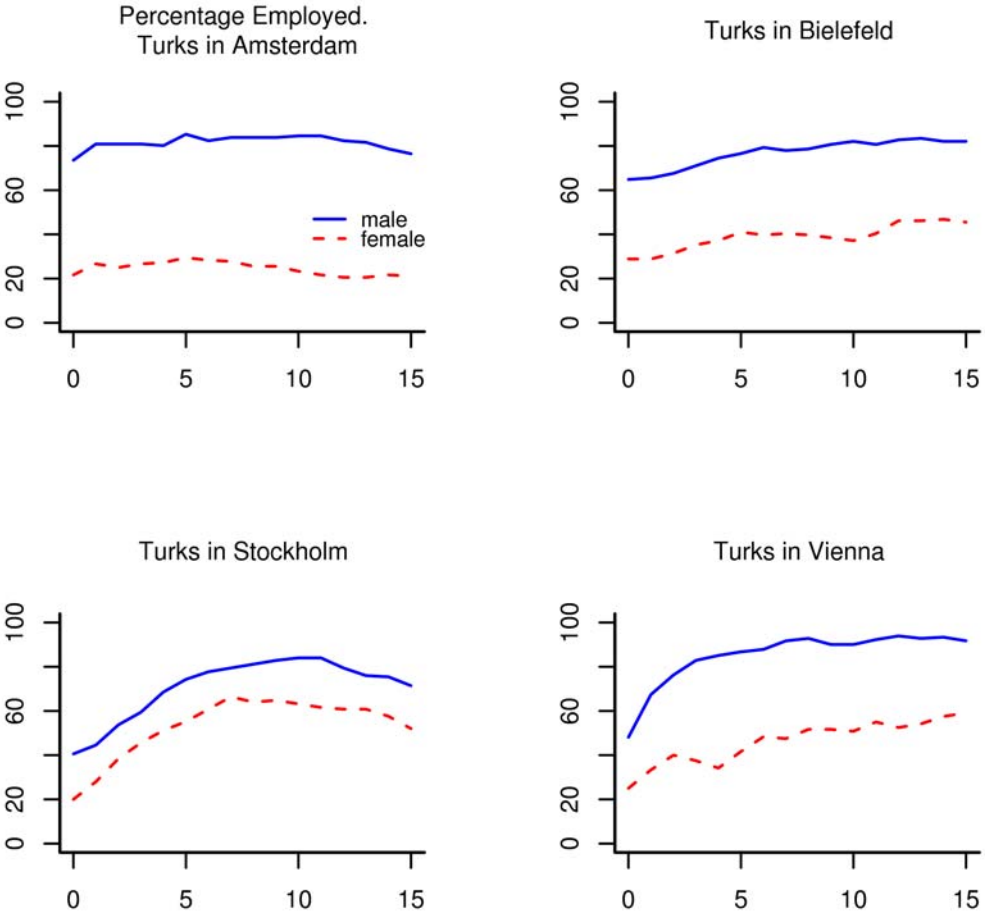
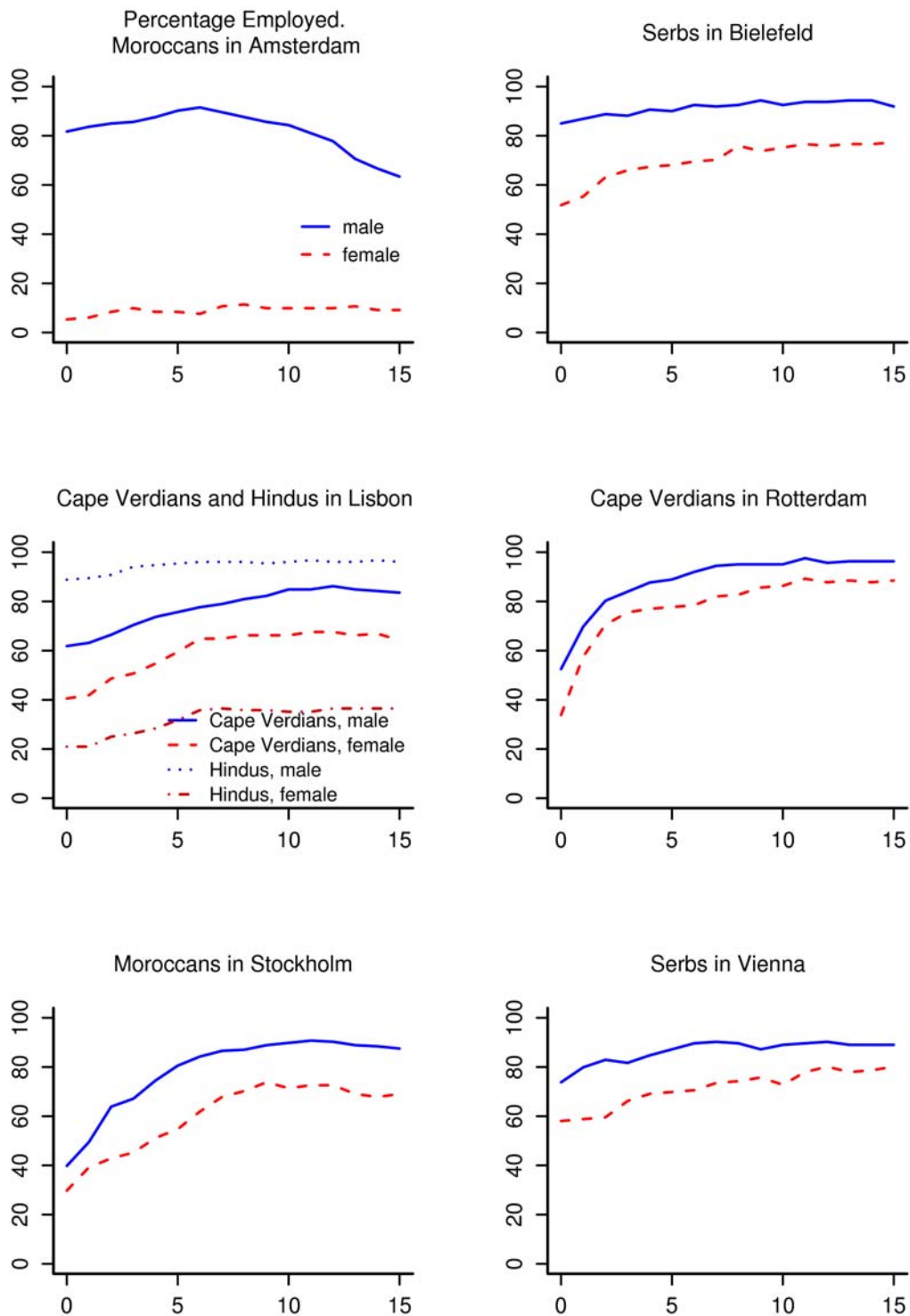


Figure 5: Percentage of employed. Other groups by sex and city. From arrival through the first 16 years.



Section 2: Sectoral Employment

Migrants and foreigners are still concentrated in a few sectors of the labour market. According to the OECD Report on Trends in International Migration 2004, “foreigners are generally over-represented in the construction, hotel and restaurant sectors and services to households, i.e. their share of employment in these sectors exceeds the proportion of foreigners in employment as a whole” (OECD 2005: 66). Nevertheless, the distribution of sectors varies across countries and groups. While almost 32% of foreigners in Germany, and 20% of foreigners in Austria and in the Netherlands are working in “mines and manufacturing industries”, nearly 20% of foreigners in Sweden work in the health and social services. In recent years, there was an observable increase of foreign employment in the tertiary sector. “This trend reflects as well the persistence of job offers that are not taken up by nationals in the services sector, including jobs that require few or no qualifications. A significant portion of these jobs is to be found for example in child care and care for elderly, or in cleaning and restaurant work” (OECD 2005: 67). Especially in Sweden (76.1% wovon?) and the Netherlands (70%), migrants have been employed in the service sector (ibid.).

If we take a look at the LIMITS-Data concerning the sectors and branches where migrants are employed we find valid values for 4832 episodes. Of course, only employed (or self-employed) can answer this question (A08, see codebook p. 103). The overall numbers are as follows:

| Agriculture | Industry | Construction | Services | Public sector | Dom. services |
|-------------|----------|--------------|----------|---------------|---------------|
| 149 | 1223 | 487 | 1860 | 860 | 253 |

A breakdown by city shows strong differentiation between the six cities: While the respondents from Bielefeld have been primarily employed in the industrial sector (to some extent also the respondents in Vienna), those in Lisbon have been employed mainly in the construction sector. The service sector looks to be the most important for the employment of migrants in Vienna and Stockholm, however also the public sector seems to be relevant in Stockholm.

| City | Bielefeld | Vienna | Stockholm | Lisbon | Amsterdam | Rotterdam |
|-----------------|-----------|--------|-----------|--------|-----------|-----------|
| 1 Agriculture | 11 | 11 | 49 | 5 | 34 | 39 |
| 2 Industry | 506 | 300 | 152 | 19 | 147 | 99 |
| 3 Construction | 64 | 122 | 43 | 213 | 22 | 23 |
| 4 Services | 186 | 400 | 390 | 370 | 253 | 261 |
| 5 Public sector | 67 | 146 | 387 | 63 | 102 | 95 |
| 6 Dom. services | 4 | 5 | 117 | 95 | 10 | 22 |

One Year After Arrival

If we look at the Sectoral employment of migrants at the first point in time, we can again find significant differences across the cities under study (Figure 6 - 7). The systematic recruitment of contract labour migrants in Germany and Austria in the late sixties and seventies was caused by the high demand in the industrial and construction sector. Unlike in Vienna, Bielefeld and Amsterdam, migrants in other cities (countries) have been employed primarily in the service sector (although in Lisbon Capeverdian men are highly concentrated in the construction and not in the service sector). The Figures 6 and 7 show also a discrepancy

in the variations of employment branches with regard to gender. Migrant women show more variation among different sectors while migrant men are concentrated in one or two sectors.

Middle of Stay

The results in Figure 8 and 9 show that an ethnic segmentation of the labour markets persists throughout the evolving migration trajectories. The dominant sectors in which the migrants were employed one year after arrival even become more dominant at the middle of the migration process. An additional indicator of the segmentation process within the labour markets under study is the concentration of female migrants in specific economic branches such as the service sector.

Interview Date

Examining the distribution of migrants' employment with regard to economic sectors in Figure 10 and 11 we can detect the overall development of non-tertiary labor markets across Europe. The downsizing of the industrial in the last 25 years explains the evident change in the migrants' labour market participation at the time of the interview, especially for males. The segmentation of the labour market for women proceeds. Across all cities and groups there is no visible shift between sectors but an overall decline in the numbers within sectors, i.e. the unemployment rates are increasing.

Figure 6: Absolute numbers in the six sectors: Agriculture, Industry, Construction, Services, Public Sector, Private Domestic Services. One year after arrival.

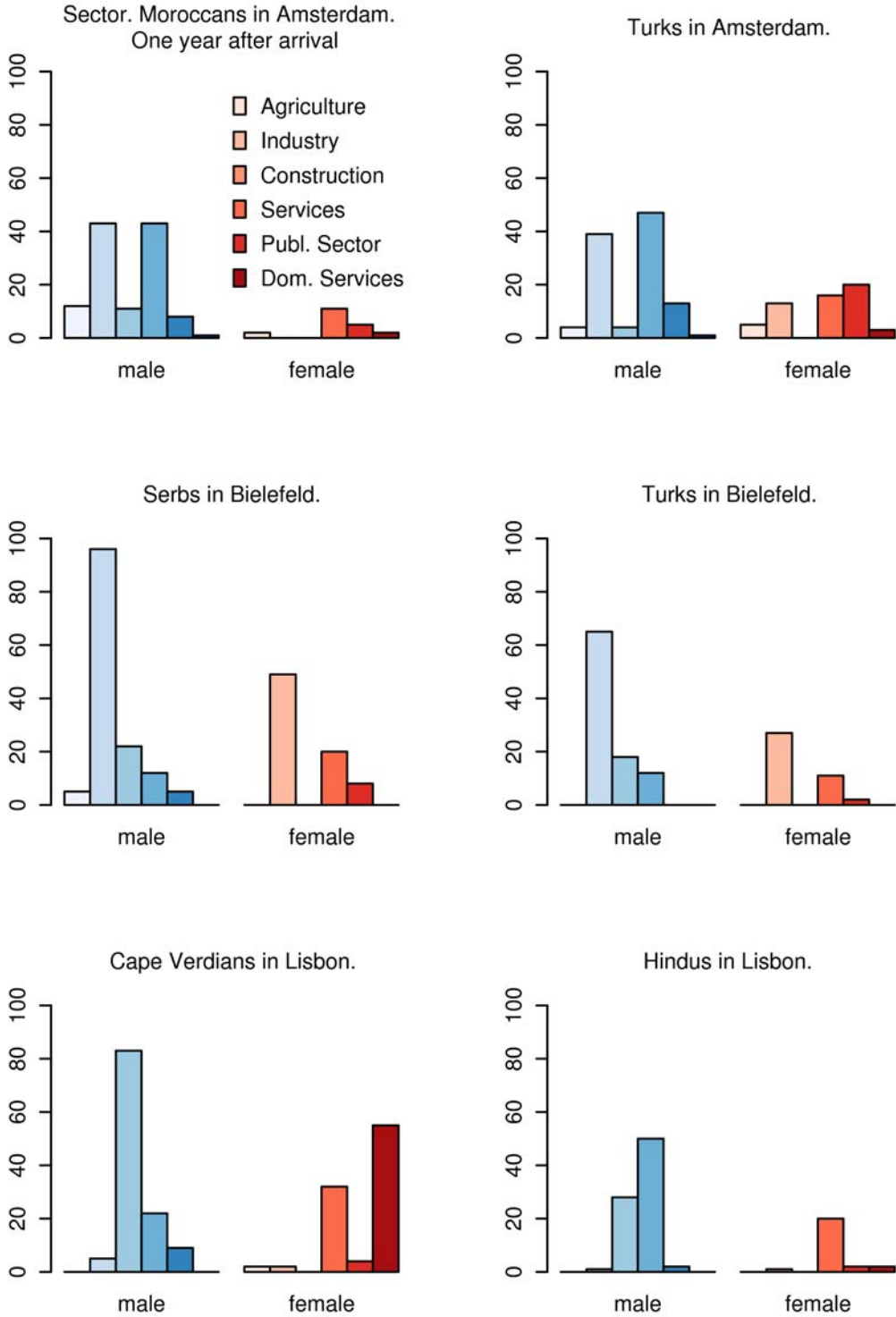


Figure 7: Continued: Absolute numbers in the six sectors: Agriculture, Industry, Construction, Services, Public Sector, Private Domestic Services. One year after arrival.

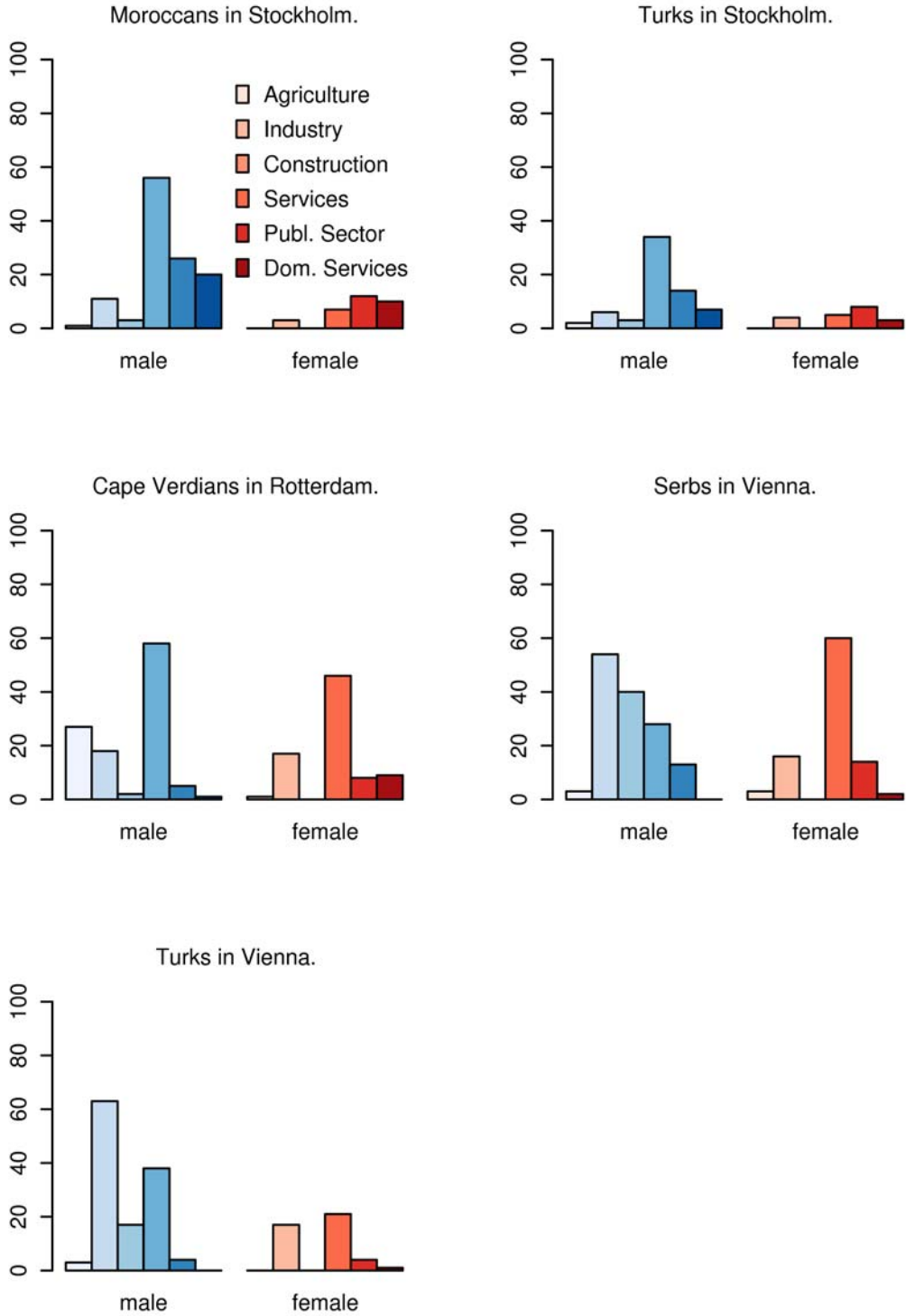


Figure 8: Absolute numbers in the six sectors: Agriculture, Industry, Construction, Services, Public Sector, Private Domestic Services. Middle of stay.

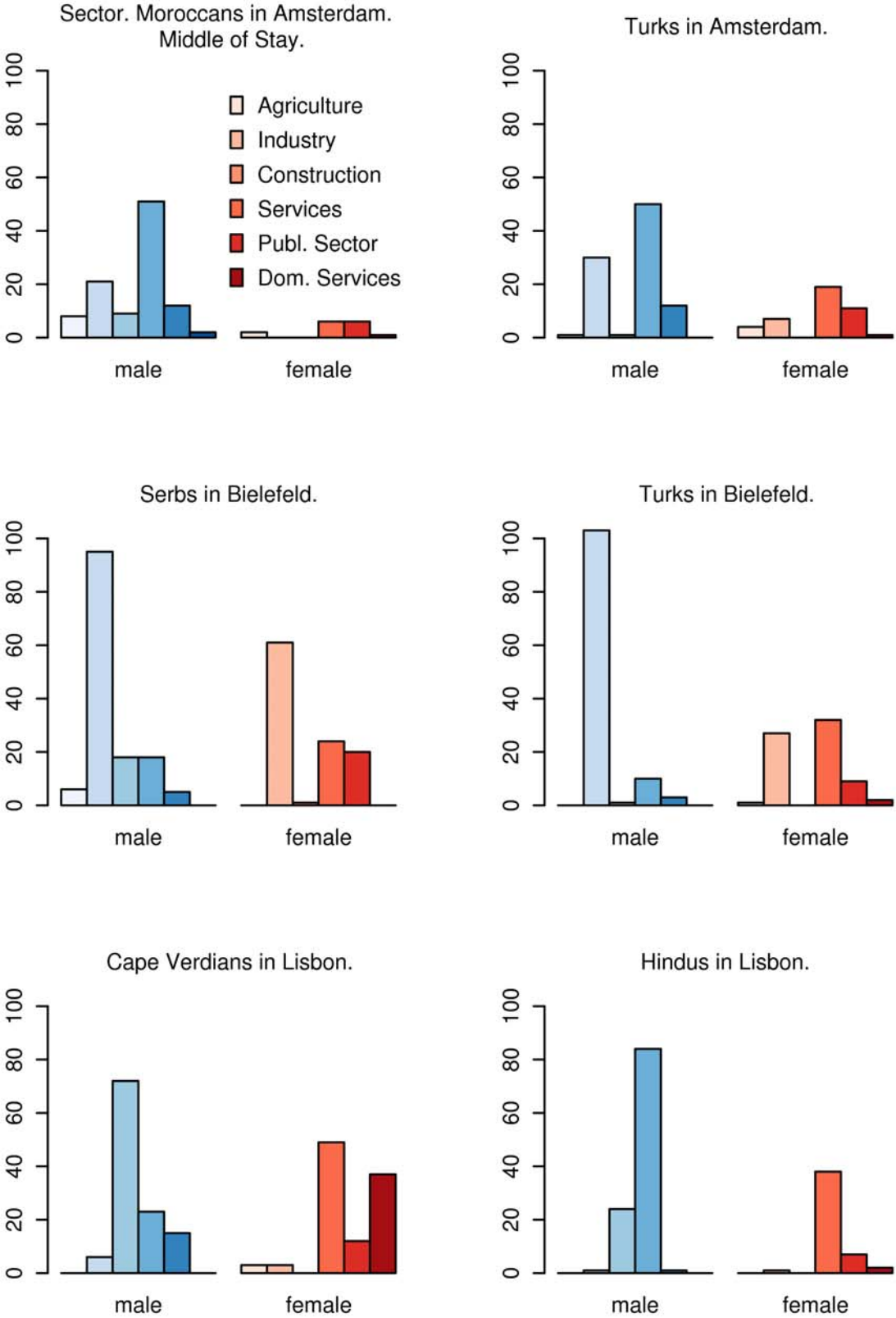


Figure 9: Continued: Absolute numbers in the six sectors: Agriculture, Industry, Construction, Services, Public Sector, Private Domestic Services. Middle of stay.

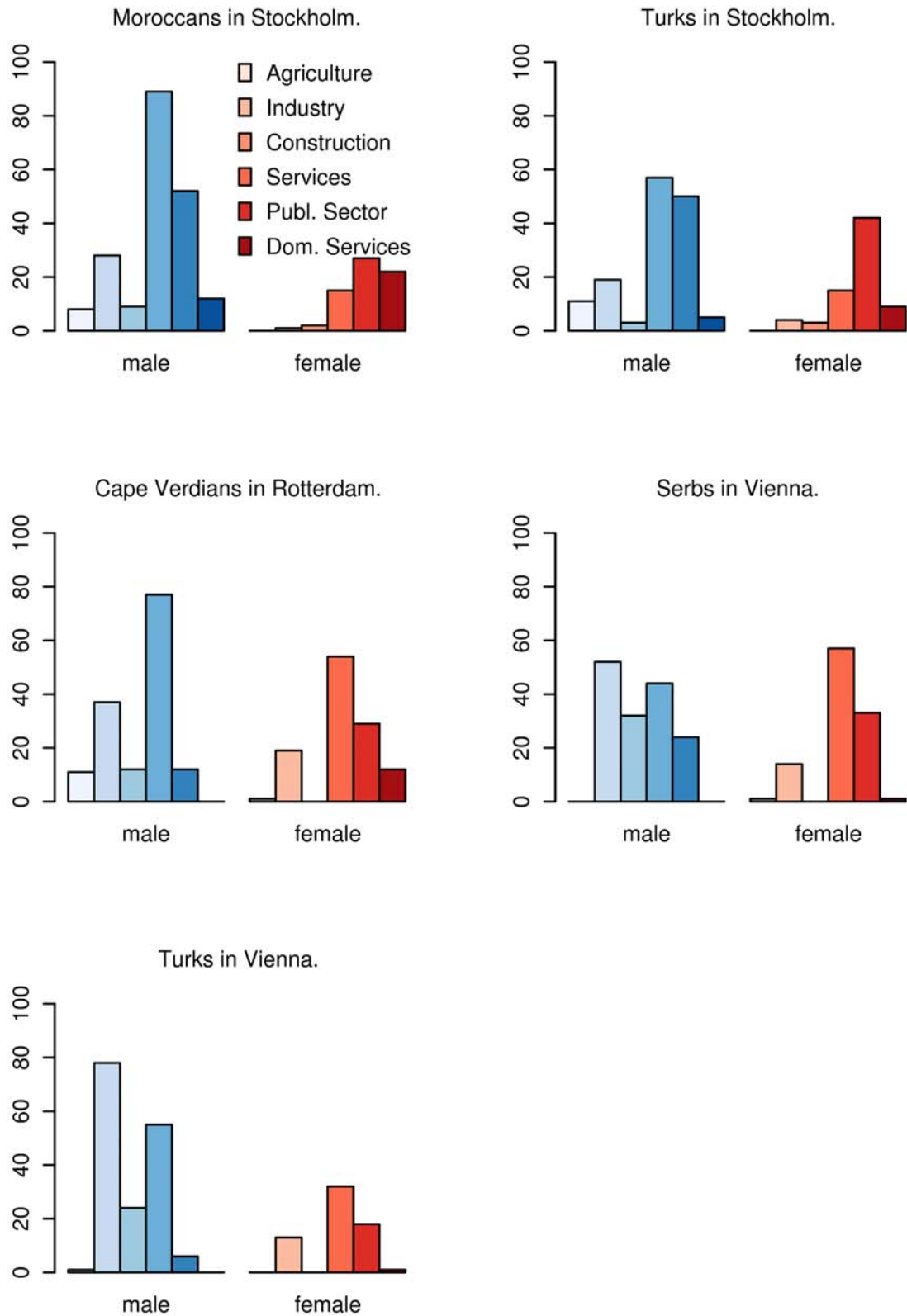


Figure 10: Absolute numbers in the six sectors: Agriculture, Industry, Construction, Services, Public Sector, Private Domestic Services. Interview date.

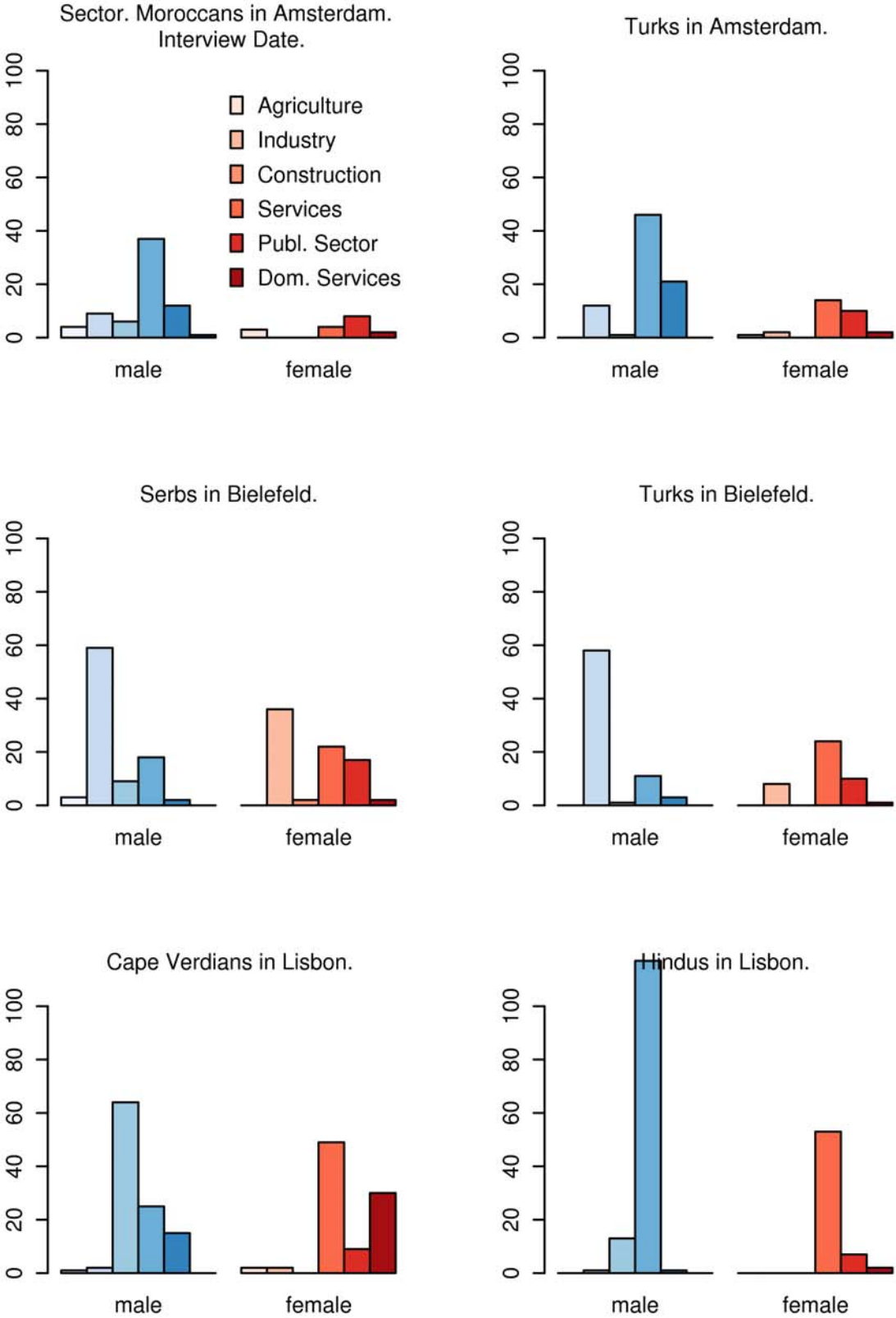
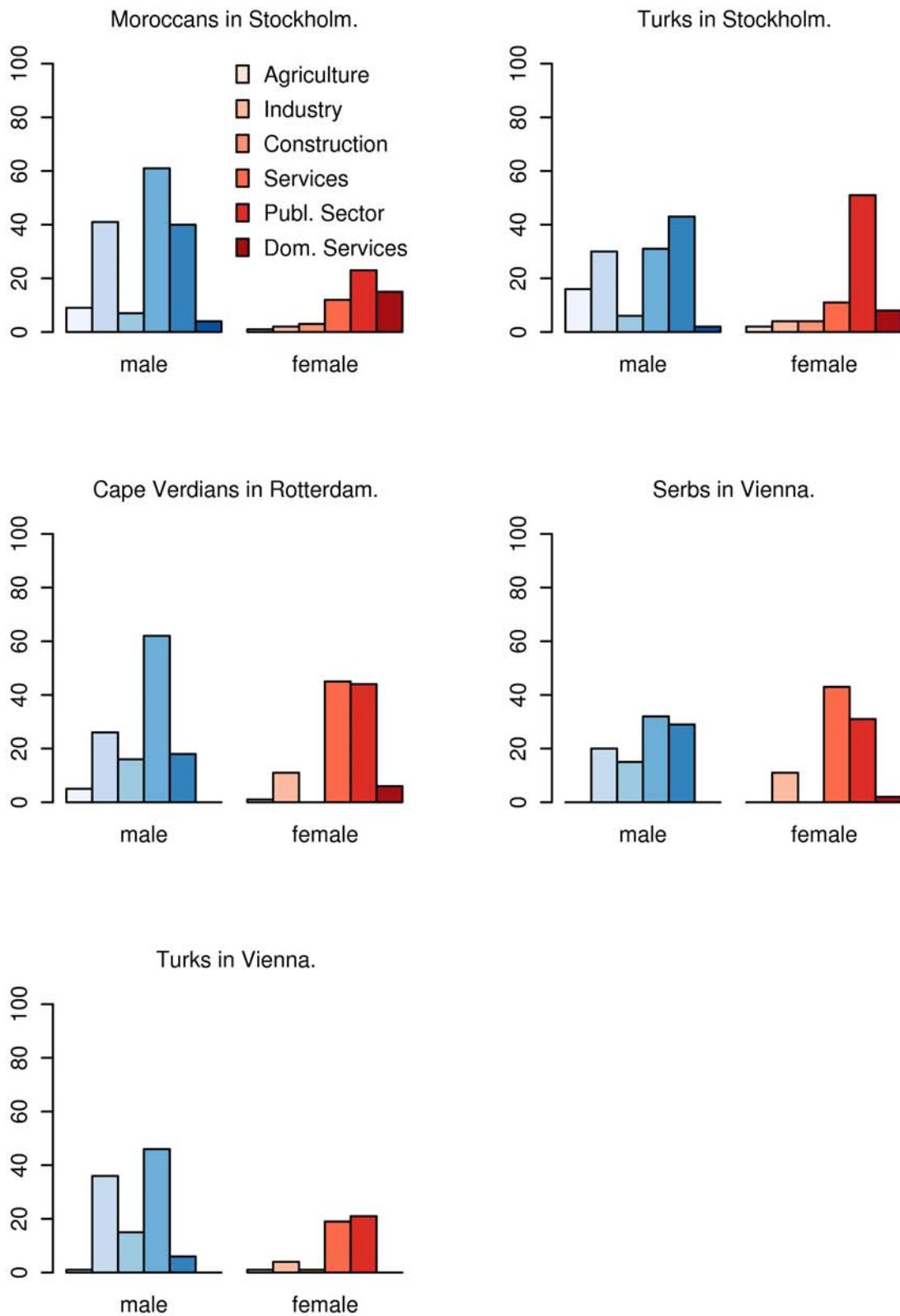


Figure 11: Continued: Absolute numbers in the six sectors: Agriculture, Industry, Construction, Services, Public Sector, Private Domestic Services. Interview date.



Section 3: Occupation

In order to define a category “skilled occupation”, the following categories of the questionnaire (variable A07, p. 102 in the codebook) are grouped together (columns in Table 10): (1) Legislator/Senior governmental official + (2) Technician/Professional + (3)

Clerk/Salesperson/Service Worker + (4) Low Civil Servant + (5) Craft and related worker /Skilled worker. Note that some respondents gave an answer to the occupation question even though they were out of labour force or unemployed. Most, however, did not answer to the question when they were out of the labour force or unemployed.

A breakdown of labour market participation (A04) by all categories of A07 including missing values but only for the first year after arrival is displayed in Table 10:

Table 10: Labour market participation (rows)²¹ by occupation (columns) one year after arrival

| | 1 | 2 | 3 | 5 | 6 | 7 | 9 | <NA> |
|----|---|----|-----|-----|-----|---|----|------|
| 1 | 8 | 39 | 127 | 306 | 789 | 7 | 29 | 71 |
| 2 | 3 | 11 | 29 | 6 | 87 | 2 | 14 | 28 |
| 3 | 1 | 3 | 21 | 22 | 80 | 0 | 20 | 22 |
| 4 | 0 | 4 | 41 | 7 | 5 | 0 | 0 | 19 |
| 5 | 1 | 6 | 6 | 1 | 11 | 0 | 5 | 186 |
| 6 | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 19 |
| 7 | 0 | 1 | 1 | 1 | 23 | 0 | 1 | 544 |
| 8 | 0 | 0 | 1 | 0 | 0 | 3 | 0 | 10 |
| 9 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 8 |
| 10 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 16 |
| 11 | 4 | 12 | 15 | 6 | 70 | 1 | 7 | 379 |
| 12 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 6 |
| 13 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 99 |
| 14 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 16 |
| 15 | 0 | 1 | 32 | 0 | 0 | 0 | 0 | 0 |

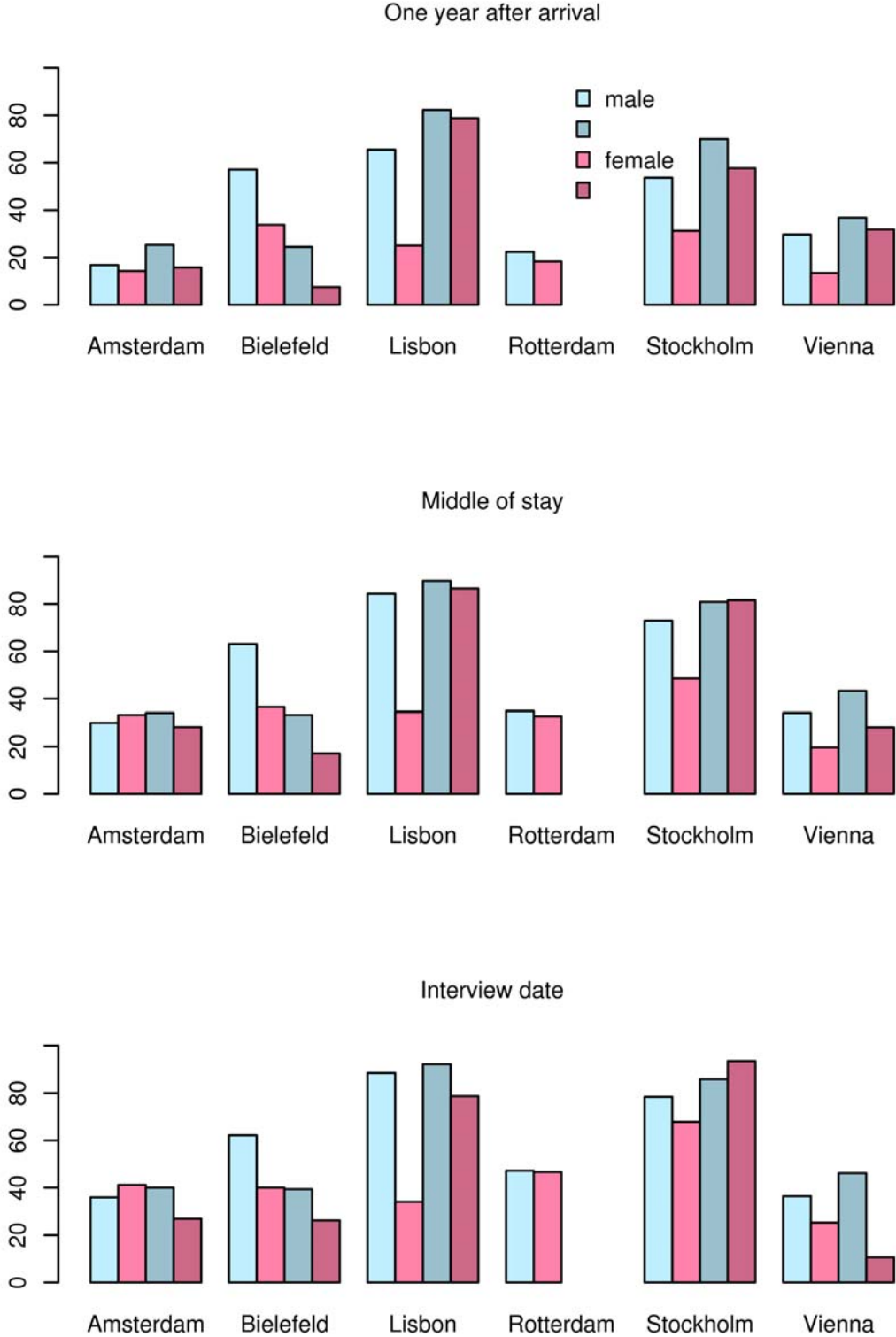
As we can see from Table 10, the most frequent occupational categories for the first point in time (one year after arrival) were the one of the elementary occupation and the one of craft and related worker /skilled worker.

Figure 12 and Tables 49-51 in the appendix show the percentage of skilled occupations for all groups and across cities at three points in time. It can be observed that while the migrants in Amsterdam and Rotterdam experience a marked upgrade of their occupational level, the percentage of skilled occupations remains pretty constant over time in Vienna, Bielefeld and Lisbon with Vienna showing the lowest percentages and Lisbon the highest. It may be

²¹ **A04:** 1=full time employed, 2=part time, 3=casual work, 4=self-employed, 5=looking for paid work, 6=maternal leave, 7=family care/housekeeping, 8=military/voluntary service, 9=retired, 10=unable to work due to illness, 11=out of labour force, 12=frequently changing acquisition status, 13=education/training, 14=other, 15=self-employed (with employees). **A07:** 1=legislator/senior government official, 2= technician/professional, 3=Clerk/service worker/salesperson, 4=low civil servant, 5=craft and related worker, 6=elementary occupation, 7=armed forces, 8=other, 9=cleaning, washing.

concluded from this evidence that the societal context in the Netherlands offers more opportunities for migrants to improve their labour market position than in Austria or Germany, at least as far as first generation migrants are concerned.

Figure 12: Percentage of skilled occupations by sex, group and city. The groups are (in order of the figure): Amsterdam: Moroccans, Turks; Bielefeld: Serbs, Turks; Lisbon: Cape Verdians, Hindus; Rotterdam: Cape Verdians; Stockholm: Moroccans, Turks; Vienna: Serbs, Turks.



Section 4: Unemployment

Many studies dealing with labour market inclusion of immigrants assess that regardless of the control variables selected, foreigners or immigrants are more vulnerable to unemployment than nationals or natives²²: “In 2002-2003, the proportion of unemployed foreigners relative to their share of the labour force was highest in the Netherlands. It was also high in Belgium, Sweden, Denmark, Norway and France. In each of these countries, foreigners in the labour force are proportionately more than twice as likely to be unemployed (in other words, their unemployment rate is at least double that of nationals)”. (OECD 2005: 62). These differences are even stronger when we compare foreigners from non-member countries of the European Union or the OECD with nationals or other foreigners.

This higher susceptibility to unemployment also holds true for the LIMITS respondents across ethnic groups, sex and cities. However, the longitudinal perspective reveals that unemployment does not play a significant role at the beginning of the migration trajectories, it becomes substantially more widespread towards the date of the interview.

The described trend in the LIMITS-Data regarding the employment rates of the different groups at three moments in time could also be detected while looking at the percentage of the unemployed by sex, group and city over time (Figure 13 - 17). While the proportions of unemployed at the beginning of the individual migration processes were relatively small and there are no considerable cross-city and cross-group differences (except for Moroccans and Turks in Stockholm)²³, we can observe a significant increase of unemployment between the second and third point in time.

The most vulnerable migrant groups are those in Bielefeld and Vienna, although the group of the migrants from Turkey are mostly struck. Between the second and the third point in time the percentage of unemployed Turks increases significantly in Vienna, for males from 4.4% to 21.5% and for females from 5% to 22.5%; in Bielefeld for males from 9% to 23.4% and for females from 3.2% to 8.3% (see Tables 14 and 15 in the Appendix and Figure 13). In addition, we can observe an enormous increase in unemployment for males from the Serbian migrant group in Bielefeld and in Vienna over time (Bielefeld: from 1.3% to 12%, in Vienna from 0.0% to 13.0%). The rising overall unemployment rates in Austria and Germany over the last 10 years have particular impact on low-skilled migrants and on those in elementary occupations. Further, the ethnic segmentation and the specific characteristics of the Austrian and German labour markets causes the higher unemployment risk of the so called first generation ‘guest workers’.

²² (Kogan 2002; OECD 2005; Peracchi and Depalo 2006)

²³ *Remark:* The high percentage of unemployed just after arrival in Stockholm is probably due to the merging of several other out-of-labour-force categories with the unemployment category in the Stockholm questionnaire.

Figure 13 Percentage of unemployed by sex, group and city. The groups are (in the order of the figure): Amsterdam: Moroccans, Turks; Bielefeld: Serbs, Turks; Lisbon: Cape Verdians, Hindus; Rotterdam: Cape Verdians; Stockholm: Moroccans, Turks; Vienna: Serbs, Turks.

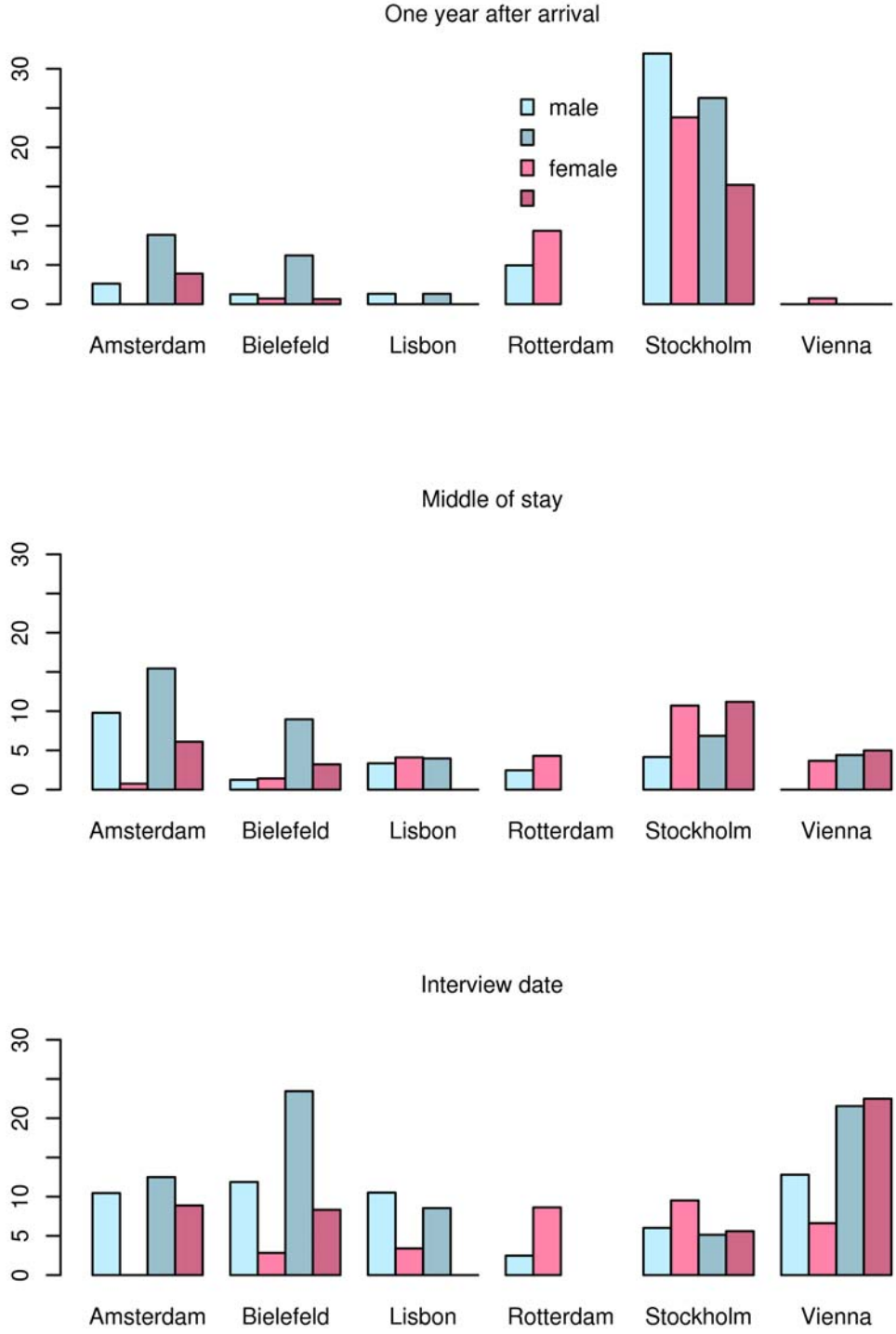


Figure 14: Percentage of unemployed. Turks by sex and city from 1966 to 2004.

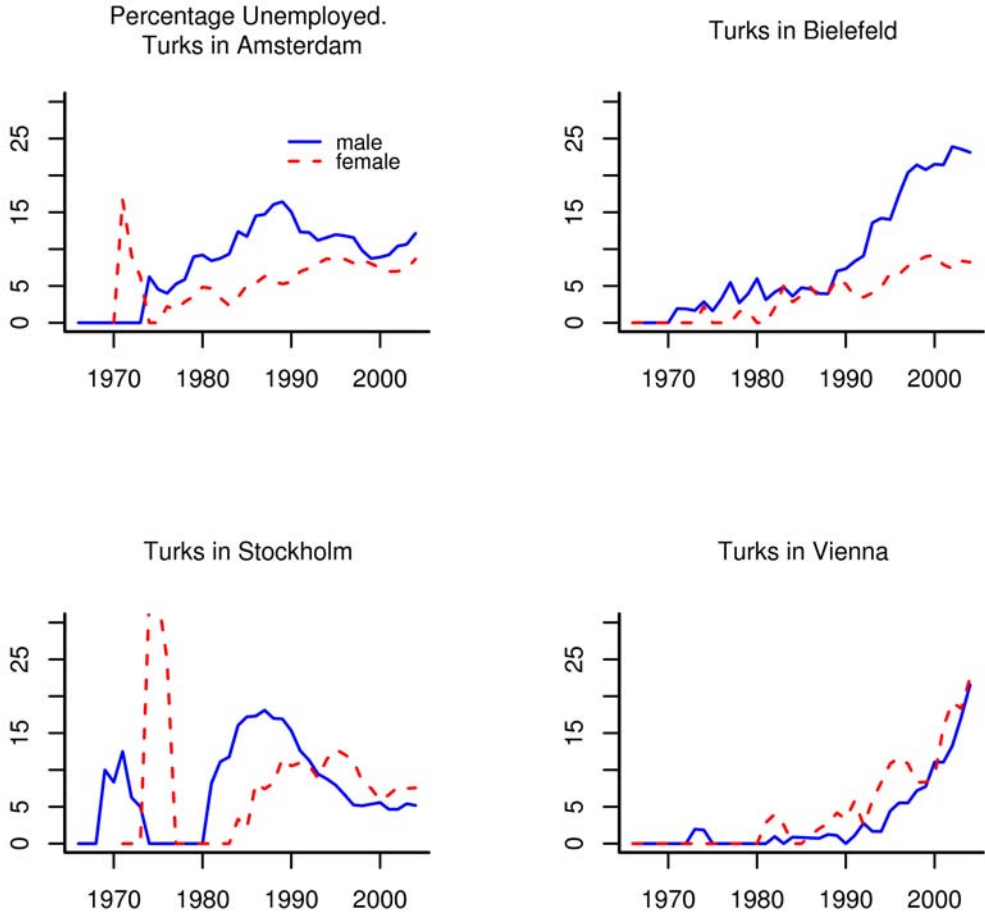


Figure 15: Percentage of unemployed. Other groups by sex and city from 1970 to 2004.

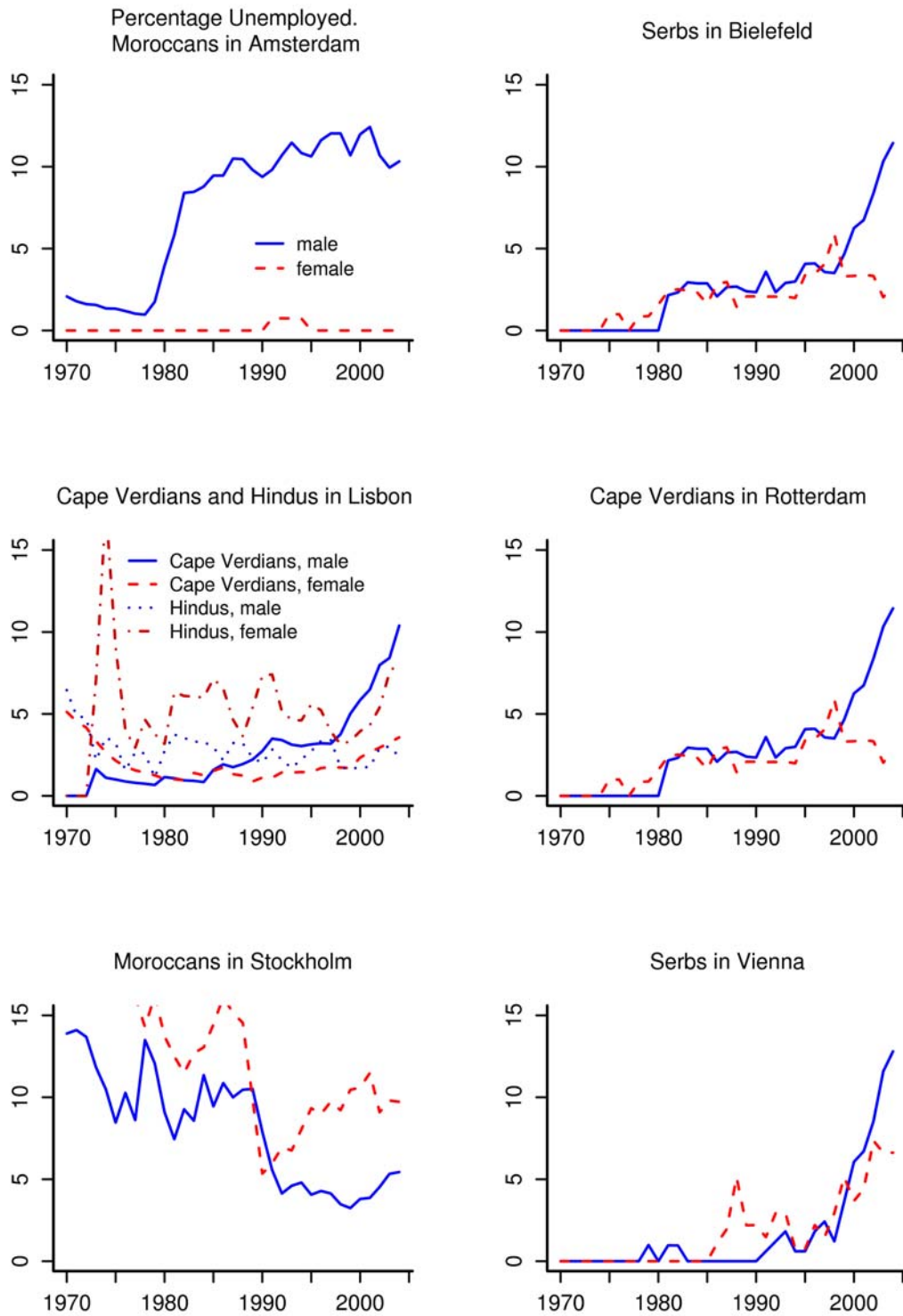


Figure 16: Percentage of unemployed. Turks by sex and city. From arrival through the first 16 years.

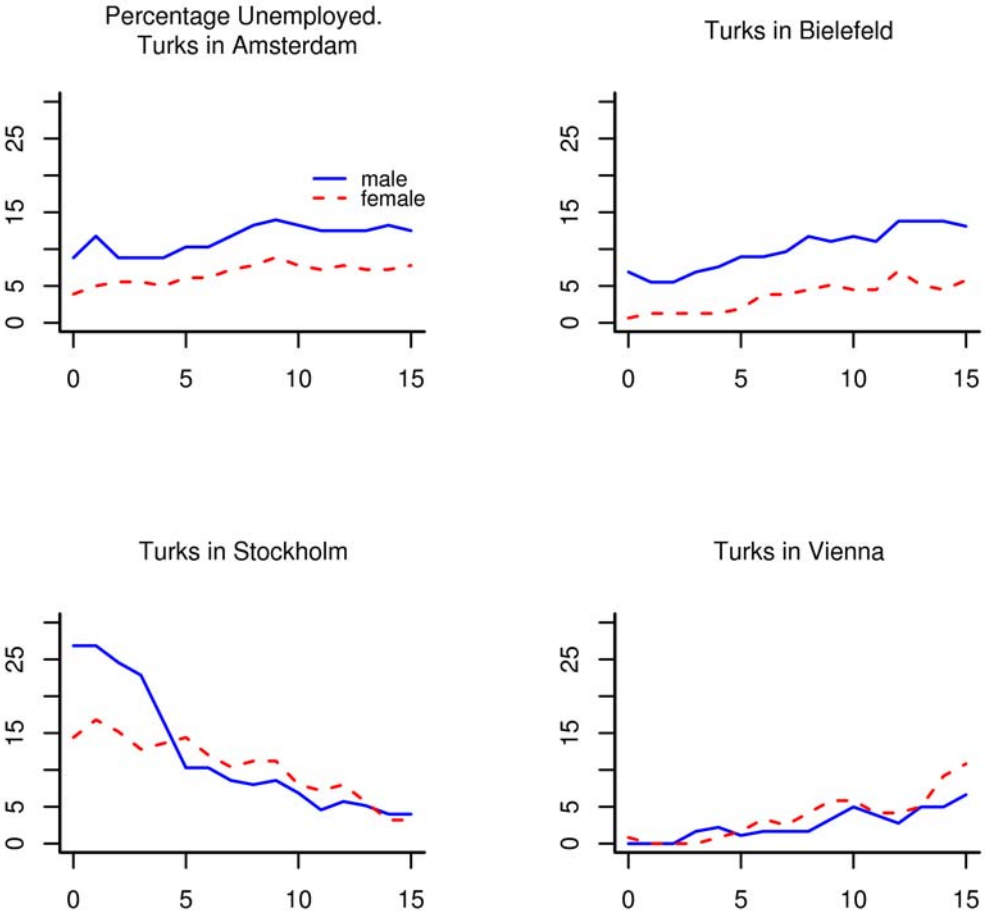
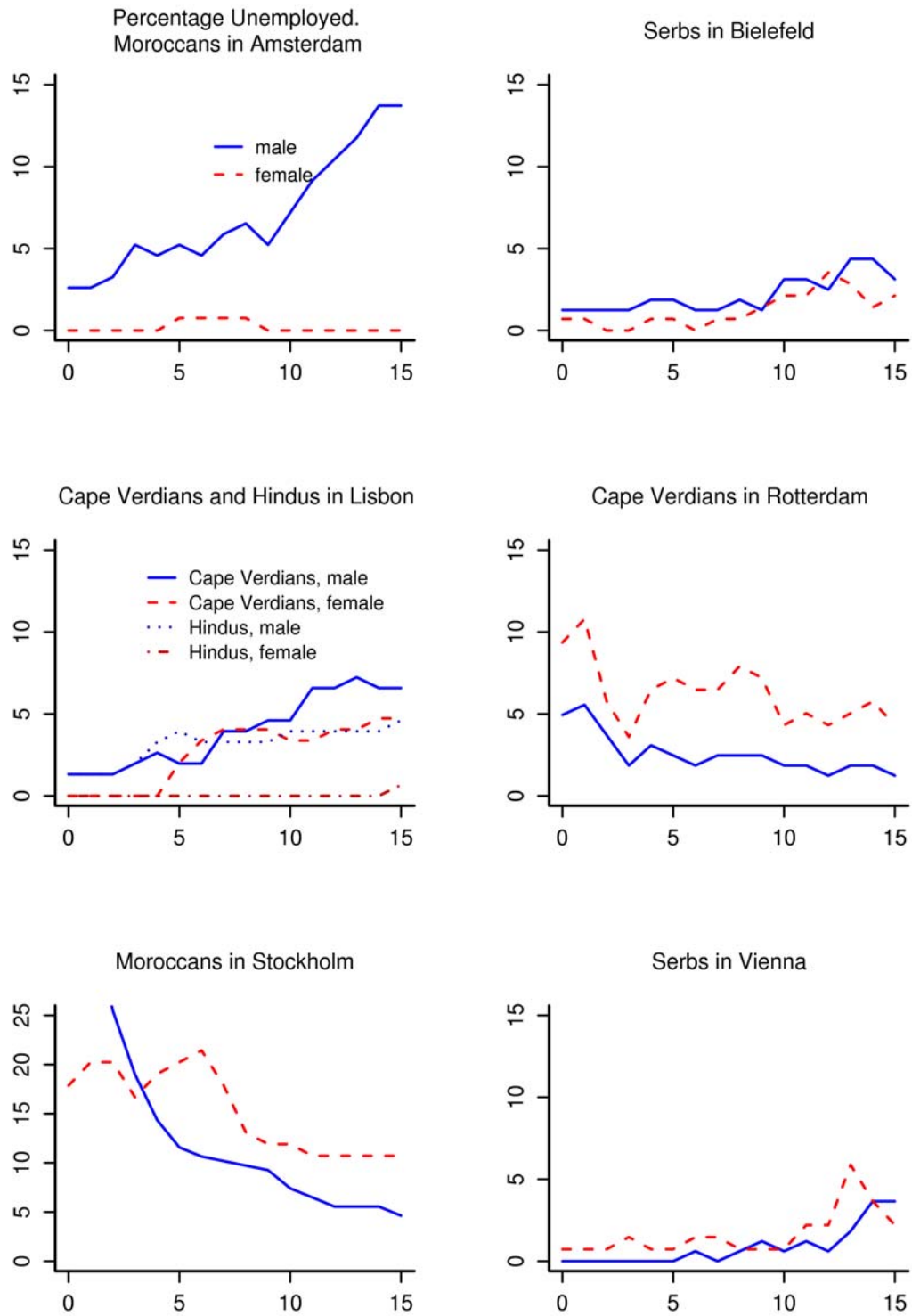


Figure 17: Percentage of unemployed. Other groups by sex and city. From arrival through the first 16 years.



Section 5: Multivariate Logit Model on Upward Moves in Occupations

In this section we present results for the probability of experiencing upward occupational mobility throughout the individual migration trajectories. Occupational mobility is defined as the change from one job to a better (upward mobility) or worse job (downward mobility) opposed to changes within a broad class of jobs similar in their socioeconomic status.

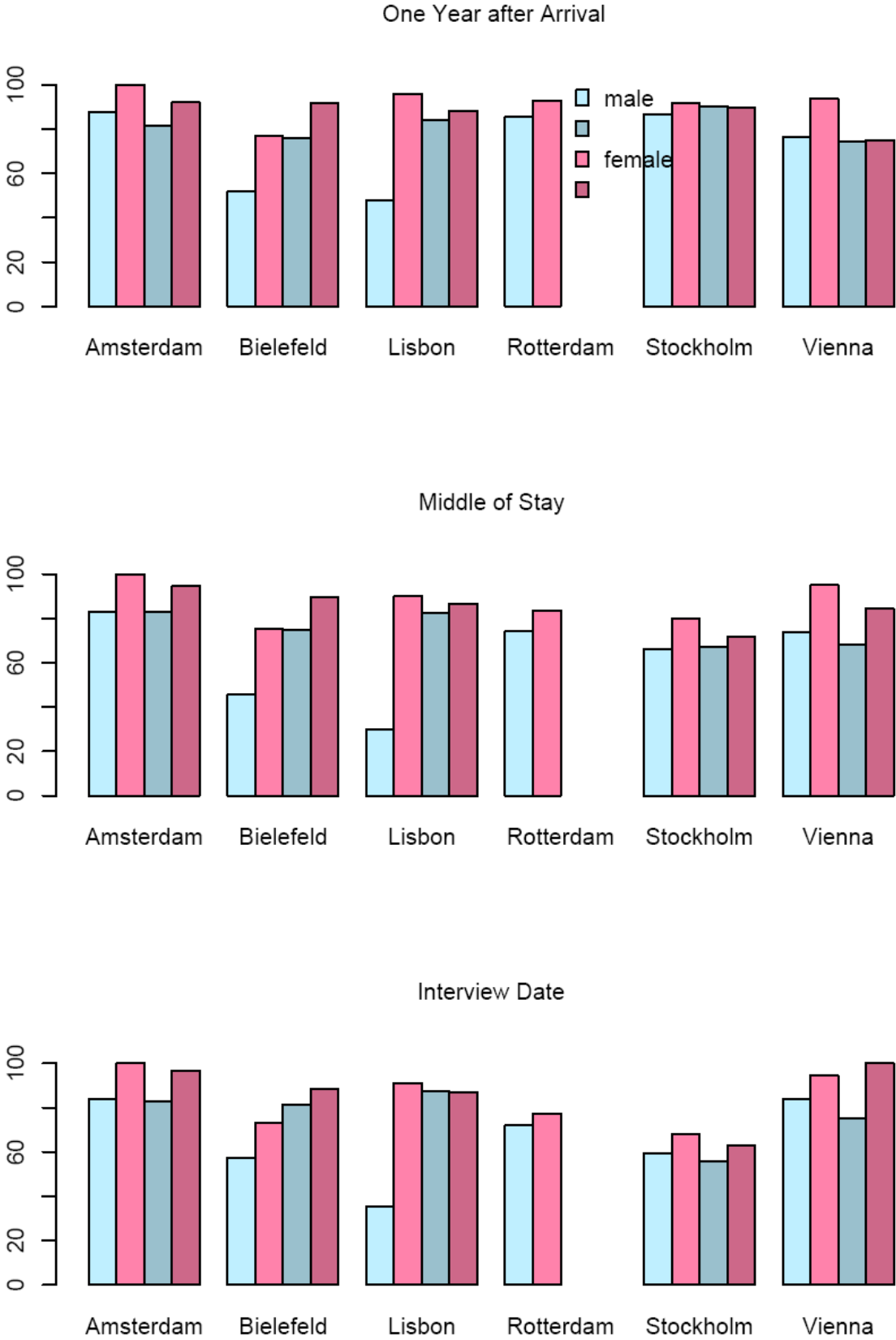
In the following model we compare a migrant's occupational status at one year after arrival with his/her occupational status at the interview date. As a comparison group at time 1 (one year after arrival) we use all those who had an occupation indicator of 6,7,8,9 or 3 (services, clerks) on the variable A07 (cf. codebook p. 102) or those who had a missing value for A07 and an indicator of being unemployed or out of labour force or had frequently changing positions (A04 3,5,11,12). This procedure leaves 2023 valid observations.

Equation 1

```
beg <- A011==1&(A07>5|A07==3|(is.na(A07) & A04 %in% c(3,5,11,12)))
```

Figure 18 shows a comparison of the percentage of people in a disadvantageous occupational position as defined by this indicator by City and Group. Only respondents born after 1939 and arriving at age 16 or older are included in the calculations. Figure 18 induces that there are no visible changes in the percentage of disadvantageous occupational positions over time, i.e. a low occupational positioning is relatively stable over time. Yet, these results should be interpreted with caution, because the absolute numbers in the bad occupational positions as the overall employment rate decrease over time (see Tables 57-59 in the appendix).

Figure 18: Percentage in bad occupational position by sex, group and city. The groups are (in order of the figure): Amsterdam: Moroccans, Turks; Bielefeld: Serbs, Turks; Lisbon: Cape Verdians, Hindus; Rotterdam: Cape Verdians; Stockholm: Moroccans, Turks; Vienna: Serbs, Turks.



Next, these observations are merged with the observations from the interview date. This leaves 2022 observations. In a next step we exclude people above age 65 which leave us with 1883 observations. Also excluded are those that were younger than 16 as well as those that were older than 45 at arrival. This leaves 1576 observations for further analysis.

In the following we define the dependent and independent variables:

The *dependent variable* **up** is binary, taking the value 1 if either A07 takes the values (1,2,4,5) at the time of the interview or A07=3 (sales and service workers) at interview time and at arrival time A07 did not equal 3 or A07 is missing for the arrival time and the respondent was unemployed or casually employed or out of labour force.

Equation 2

```
up <- as.numeric((A07.y %in% c(1,2,4,5)) | ((A07.x !=3 |(is.na(A07.x) & A04.x %in% c(3,5,11,12))))& A07.y==3))
```

The variable **up** has 497 missing values, in 364 cases **up** equals 1; in 715 cases it equals 0.

The variable **eduorg** is equal to 1 if the respondent attained at least a secondary school certificate in his/her country of origin or in a 3rd country. This variable is missing in 88 cases, it takes the value 1 in 596 cases.

Equation 3

```
eduorg <- as.numeric(pmax(B20.x,B22.x,na.rm=T) > 5)
```

The variable **vocorg** records vocational training in the country of origin or in a 3rd country (at least apprenticeship with certificate).

Equation 4

```
vocorg <- as.numeric(pmax(B21.x,B23.x,na.rm=T) > 2)
```

Because there are 445 missing values (and only 138 valid answers), we excluded this variable from most analyses. Similarly, previous occupation in the country of origin is excluded because the overwhelming majority of the respondents did not answer the question.

pp (variable B36, see codebook p. 69) is an indicator of whether the respondent had a valid passport of the receiving country at the interview date. There are 3 missing values here, 1055 respondents report that they are nationals of the receiving country.

edurec reports whether the respondent ever went to school or had vocational training in the receiving country (variable L01, see codebook p.160f.). There are 6 missing values, 434 answer it positive.

Other determinants of the probability for upward moves in occupation that are included in the model are age at arrival (B06=**agearr**), year of arrival (-1900, variable B05=**arriv**) as well as sex (B01=**Sex**). City and group are given by the acronyms "biserb" (e.g. Bielefeld, Serbs), "biturk", "vieserb", "vieturk", "stmor", "stturk", "liscap", "lishin", "amsmor", "amsturk", "rotcap" with the obvious meanings.

Descriptive statistics of the dependent and independent variables in the final data set, excluding any missing values, is given in the following Table 11:

Table 11: Model 1 - Descriptive statistics of independent and dependent variables

| 8 Variables 1025 Observations | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---------|--------|---------|---------|-------|--------|--------|--------|--------|-----|--|---------|--------|---------|---------|-------|--------|--------|--------|--------|--|-----------|----|-----|-----|----|-----|-----|----|-----|----|--|---|---|----|----|---|----|----|---|----|---|--|
| up | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| n | missing | unique | Sum | Mean | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1025 | 0 | 2 | 347 | 0.3385 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Sex | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| n | missing | unique | Sum | Mean | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1025 | 0 | 2 | 356 | 0.3473 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| gr | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| n | missing | unique | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1025 | 0 | 11 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <table border="0" style="width: 100%; border-collapse: collapse;"> <tr> <td></td> <td>biserb</td> <td>biturk</td> <td>vieserb</td> <td>vieturk</td> <td>stmor</td> <td>stturk</td> <td>liscap</td> <td>lishin</td> <td>amsmor</td> <td></td> </tr> <tr> <td>Frequency</td> <td>63</td> <td>34</td> <td>134</td> <td>81</td> <td>164</td> <td>123</td> <td>84</td> <td>112</td> <td>53</td> <td></td> </tr> <tr> <td>%</td> <td>6</td> <td>3</td> <td>13</td> <td>8</td> <td>16</td> <td>12</td> <td>8</td> <td>11</td> <td>5</td> <td></td> </tr> </table> | | | | | | | | | | | | biserb | biturk | vieserb | vieturk | stmor | stturk | liscap | lishin | amsmor | | Frequency | 63 | 34 | 134 | 81 | 164 | 123 | 84 | 112 | 53 | | % | 6 | 3 | 13 | 8 | 16 | 12 | 8 | 11 | 5 | |
| | biserb | biturk | vieserb | vieturk | stmor | stturk | liscap | lishin | amsmor | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Frequency | 63 | 34 | 134 | 81 | 164 | 123 | 84 | 112 | 53 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| % | 6 | 3 | 13 | 8 | 16 | 12 | 8 | 11 | 5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <table border="0" style="width: 100%; border-collapse: collapse;"> <tr> <td></td> <td>amsturk</td> <td>rotcap</td> <td colspan="8"></td> </tr> <tr> <td>Frequency</td> <td>46</td> <td>131</td> <td colspan="8"></td> </tr> <tr> <td>%</td> <td>4</td> <td>13</td> <td colspan="8"></td> </tr> </table> | | | | | | | | | | | | amsturk | rotcap | | | | | | | | | Frequency | 46 | 131 | | | | | | | | | % | 4 | 13 | | | | | | | | |
| | amsturk | rotcap | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Frequency | 46 | 131 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| % | 4 | 13 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| arriv | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| n | missing | unique | Mean | .05 | .10 | .25 | .50 | .75 | .90 | .95 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1025 | 0 | 27 | 80.73 | 69 | 71 | 75 | 82 | 87 | 89 | 89 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| lowest : 62 65 66 67 68, highest: 86 87 88 89 90 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| agearr | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| n | missing | unique | Mean | .05 | .10 | .25 | .50 | .75 | .90 | .95 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1025 | 0 | 28 | 23.51 | 17 | 18 | 20 | 22 | 26 | 31 | 35 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| lowest : 16 17 18 19 20, highest: 39 40 41 42 44 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| PP | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| n | missing | unique | Sum | Mean | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1025 | 0 | 2 | 725 | 0.7073 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| eduorg | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| n | missing | unique | Sum | Mean | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1025 | 0 | 2 | 461 | 0.4498 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| edurec | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| n | missing | unique | Sum | Mean | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1025 | 0 | 2 | 317 | 0.3093 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

A first logit model is specified by:

Equation 5

```
erg <- glm(up -1 + gr + (eduorg + edurec + pp)*Sex + ns(arriv,df=3), data=datnew, family="binomial") summary(erg)
```

For this model, there are 1025 valid cases. The results are presented in the following table:

| | Estimate | Std. Error | z value | Pr(> z) |
|--------------------|----------|------------|---------|----------|
| grbiserb | -2.0697 | 0.7235 | -2.86 | 0.0042 |
| grbiturk | -2.8103 | 0.8595 | -3.27 | 0.0011 |
| grvieserb | -2.6376 | 0.7350 | -3.59 | 0.0003 |
| grvieturk | -2.7831 | 0.7787 | -3.57 | 0.0004 |
| grstmor | -1.0516 | 0.7093 | -1.48 | 0.1382 |
| grstturk | -0.8917 | 0.7628 | -1.17 | 0.2424 |
| grliscap | -1.1329 | 0.7699 | -1.47 | 0.1411 |
| grlishin | -2.5061 | 0.7715 | -3.25 | 0.0012 |
| gramsmor | -3.1794 | 0.8260 | -3.85 | 0.0001 |
| gramsturk | -2.6511 | 0.8401 | -3.16 | 0.0016 |
| grrotcap | -2.5284 | 0.7639 | -3.31 | 0.0009 |
| eduorg | 0.3905 | 0.1925 | 2.03 | 0.0425 |
| edurec | 0.5763 | 0.2053 | 2.81 | 0.0050 |
| pp | 0.3004 | 0.2396 | 1.25 | 0.2099 |
| Sex | -2.0084 | 0.4760 | -4.22 | 0.0000 |
| ns(arriv, df = 3)1 | 0.3418 | 0.4358 | 0.78 | 0.4328 |
| ns(arriv, df = 3)2 | 1.9264 | 1.5575 | 1.24 | 0.2161 |
| ns(arriv, df = 3)3 | 0.0153 | 0.2974 | 0.05 | 0.9590 |
| eduorg:Sex | 0.9090 | 0.3565 | 2.55 | 0.0108 |
| edurec:Sex | 0.9615 | 0.3679 | 2.61 | 0.0090 |
| pp:Sex | 0.8756 | 0.4794 | 1.83 | 0.0678 |

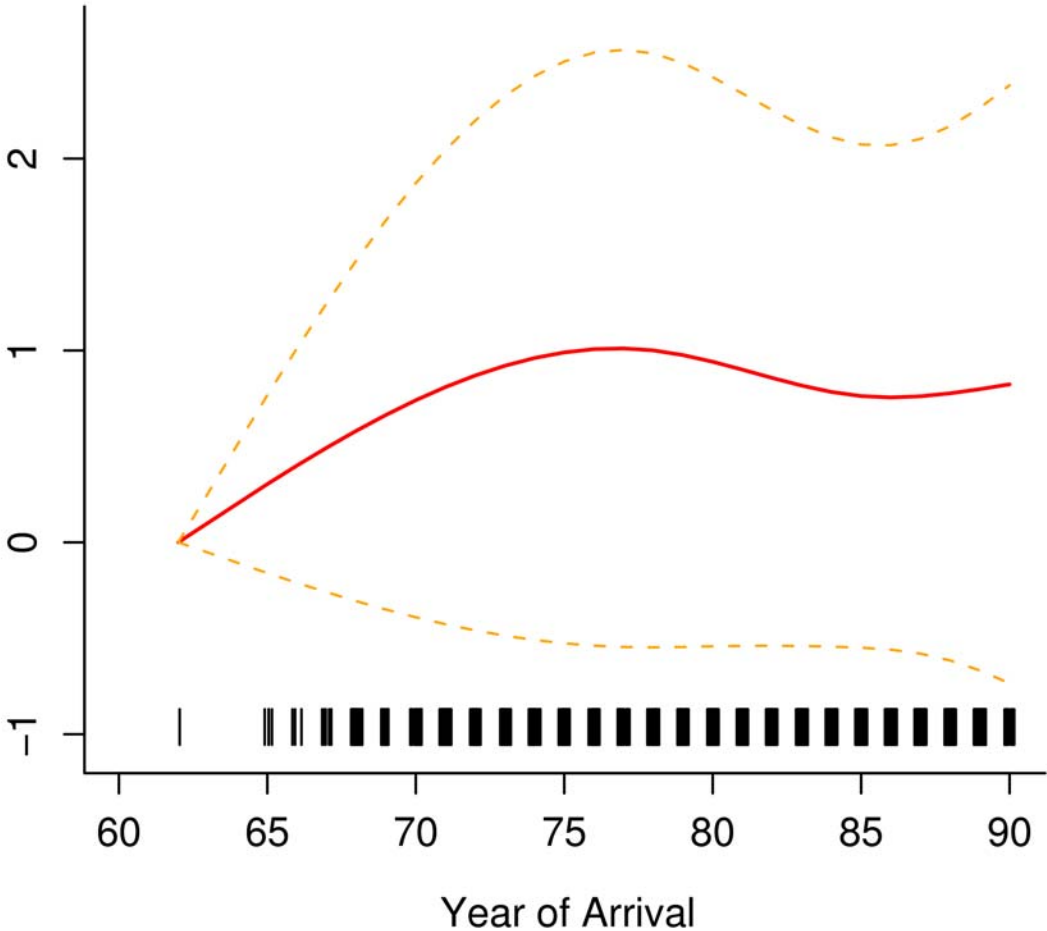
Obviously, women only rarely experience an upward move as defined here. In terms of groups, especially Turks have only small chances to experience an upward move (except for Stockholm). In terms of cities, migrants in Amsterdam and to a lesser extent in Vienna do less well than Serbs in Bielefeld. All these effects are rather large. Note that a constant term is excluded from the model so that the group and city variables reflect the mean effect for that group/city when all other variables were 0.

The effect of education is large, positive, and significant, both for education above primary schooling in the country of origin and for any kind of education or training in the receiving society. Moreover, there are significant and large positive additional interaction terms for women.

In comparison, the effect of naturalisation is somewhat smaller but not significant. In the cases finally used for this model, slightly more than 70% are naturalised.

The effect of year of arrival is modeled using natural cubic splines with three degrees of freedom. The influence is best appreciated by looking at the Figure 19 showing the effect on the scale of the linear predictor. Year of arrival has practically no effect.

Figure 19: Effect of year of arrival on the probability of an occupational upward move



Note that in this model, the baseline is respondents in unskilled occupations *including* service and sales personnel. Especially in Lisbon, and especially for the Hindu population there, many respondents are self-employed in the service sector. Thus, the classification used in this model may report a more negative result for these groups than would otherwise be expected. Another exception may probably be seen with regard to both groups in Stockholm that on average have a much higher educational background than the respective groups in other countries. This may at least partly be due to the special sampling procedure used in Stockholm.

Lastly, the very uneven number of cases for the different groups and cities that started out in a disadvantageous situation as given in Table 11 on the distribution of variables must be taken into account (e.g. only 34 Turks in Bielefeld started from a bad occupational position (and had valid values on the rest of the variables)).

Section 6: Multivariate Logit Model on Labour Market Participation

In this section we look at the labour market participation through time. Specifically, we analyse whether someone is employed (full-time or part-time or self-employed) (A04 takes values 1,2,4,15) or not for all years since arrival in the receiving country.

We only included episodes starting after 1959. Also excluded are people that were younger than 17 years on arrival. This will exclude those that might otherwise start with compulsory schooling episodes. Also excluded are a few reported episodes that start before the arrival time. This will reduce the number of reported labour market episodes to 11003 corresponding to 2704 persons.

We then created an indicator of labour market participation for each year from the earliest reported labour market episode through 20 years (or until interview date or until age 60). The indicator takes the value 1 if at least one of the reported activities in the corresponding year is an employment. Thus, 52357 yearly indicators corresponding to 2693 persons are created.

We use as covariates the Cities and Groups gr as well as a yearly indicator of whether the person was nationalised before the corresponding year (passp). Moreover, the gender (B01), schooling above primary schooling in the country of origin (schoolorg), whether the respondent went to school or had vocational training in the receiving country (edurec) are used as covariates. Using only records with complete information on these variables leaves 44894 indicators for 2425 respondents.

Lastly, we excluded schooling spells leaving 44513 indicators for 2425 respondents.

44513 Observations in the group

n missing unique
44513 0 11

| | biserb | biturk | vieserb | vieturk | stmor | stturk | liscap | lishin | amsmor | amsturk | rotcap |
|----------|--------|--------|---------|---------|-------|--------|--------|--------|--------|---------|--------|
| n | 4840 | 3178 | 4614 | 4208 | 4341 | 3619 | 3274 | 4282 | 4320 | 4245 | 3592 |
| % | 11 | 7 | 10 | 9 | 10 | 8 | 7 | 10 | 10 | 10 | 8 |

Table 12: Model 2 - Descriptive statistics of independent and dependent variables

| | | | | | | | | | | | |
|--|---------|--------|-------|--------|------|------|------|------|------|------|--|
| B01: Gender | | | | | | | | | | | |
| n | missing | unique | Sum | Mean | | | | | | | |
| 44513 | 0 | 2 | 19316 | 0.4339 | | | | | | | |
| B02: Year of Birth | | | | | | | | | | | |
| n | missing | unique | Mean | .05 | .10 | .25 | .50 | .75 | .90 | .95 | |
| 44513 | 0 | 50 | 1954 | 1938 | 1941 | 1947 | 1954 | 1961 | 1966 | 1968 | |
| B05: Year of Arrival | | | | | | | | | | | |
| n | missing | unique | Mean | .05 | .10 | .25 | .50 | .75 | .90 | .95 | |
| 44513 | 0 | 36 | 1979 | 1968 | 1970 | 1973 | 1980 | 1985 | 1988 | 1989 | |
| B06: Age at Arrival | | | | | | | | | | | |
| n | missing | unique | Mean | .05 | .10 | .25 | .50 | .75 | .90 | .95 | |
| 44513 | 0 | 38 | 25.00 | 18 | 18 | 21 | 24 | 28 | 33 | 38 | |
| schoolorg: Schooling above Primary in Country of Origin | | | | | | | | | | | |
| n | missing | unique | Sum | Mean | | | | | | | |
| 44513 | 0 | 2 | 16188 | 0.3637 | | | | | | | |
| edurec: Schooling or Vocational Training in Receiving Country | | | | | | | | | | | |
| n | missing | unique | Sum | Mean | | | | | | | |
| 44513 | 0 | 2 | 10993 | 0.2470 | | | | | | | |
| passp: Nationalised | | | | | | | | | | | |
| n | missing | unique | Sum | Mean | | | | | | | |
| 44513 | 0 | 2 | 14445 | 0.3245 | | | | | | | |
| prevempl: Employed in Previous Year | | | | | | | | | | | |
| n | missing | unique | Sum | Mean | | | | | | | |
| 44513 | 0 | 2 | 31858 | 0.7157 | | | | | | | |
| empl: Employed (Dependent Variable) | | | | | | | | | | | |
| n | missing | unique | Sum | Mean | | | | | | | |
| 44513 | 0 | 2 | 32312 | 0.7259 | | | | | | | |

For these data, we specify the model:

Equation 6

```
erg3 <- gam(empl -1 + gr + (schoolorg + edurec + passp)*B01 + s(age,time) + I(edur > 0.9), family="binomial")
```

This is a logit model without intercept, so that the groups variable (*gr*) reflects the mean effect of the groups on the logit scale. Except for the mentioned covariates, a smooth function of age and calendar year is added. For the variables *schoolorg*, *edurec*, and *passp*, both a main effect as well as the interaction with gender is included. Finally, an indicator for previous labour market experience (**edur**) is constructed by dividing the number of years of previous employment by the number of years in the receiving country (minus one). Since previous employment is used, the first year for each respondent is excluded from the data.

The results are given in Table 13. The smooth term is plotted in Figures 20 and 21.

Table 13: Model 2

| | Estimate | naive se | naive z value | Jackknife se | Jackknife z value |
|---------------|----------|----------|---------------|--------------|-------------------|
| grbiserb | 1.0429 | 0.0640 | 16.29 | 0.1812 | 5.75 |
| grbiturk | 0.2500 | 0.0601 | 4.16 | 0.1723 | 1.45 |
| grvieserb | 1.4322 | 0.0662 | 21.62 | 0.1719 | 8.33 |
| grvieturk | 1.0480 | 0.0554 | 18.91 | 0.1335 | 7.85 |
| grstmor | 1.1503 | 0.0568 | 20.24 | 0.1387 | 8.29 |
| grstturk | 0.9344 | 0.0595 | 15.71 | 0.1573 | 5.94 |
| grliscap | 0.9719 | 0.0610 | 15.94 | 0.1754 | 5.54 |
| grlishin | 0.0238 | 0.0657 | 0.36 | 0.1828 | 0.13 |
| gramsmor | -0.7390 | 0.0542 | -13.63 | 0.1436 | -5.14 |
| gramsturk | -0.3775 | 0.0563 | -6.71 | 0.1543 | -2.45 |
| grotcap | 1.9865 | 0.0763 | 26.05 | 0.2128 | 9.33 |
| schoolorg | 0.2221 | 0.0484 | 4.59 | 0.1256 | 1.77 |
| edurec | 0.0718 | 0.0505 | 1.42 | 0.1304 | 0.55 |
| passp | 0.4357 | 0.0535 | 8.14 | 0.1267 | 3.44 |
| B01 | -1.4780 | 0.0454 | -32.57 | 0.1195 | -12.37 |
| edur > 0.9 | 3.4637 | 0.0516 | 67.15 | 0.0854 | 40.55 |
| schoolorg:B01 | 0.3486 | 0.0644 | 5.41 | 0.1694 | 2.06 |
| edurec:B01 | 0.5686 | 0.0685 | 8.30 | 0.1736 | 3.28 |
| passp:B01 | -0.1205 | 0.0650 | -1.86 | 0.1562 | -0.77 |

Figure 20: Effect on age and calendar year on the probability of employment

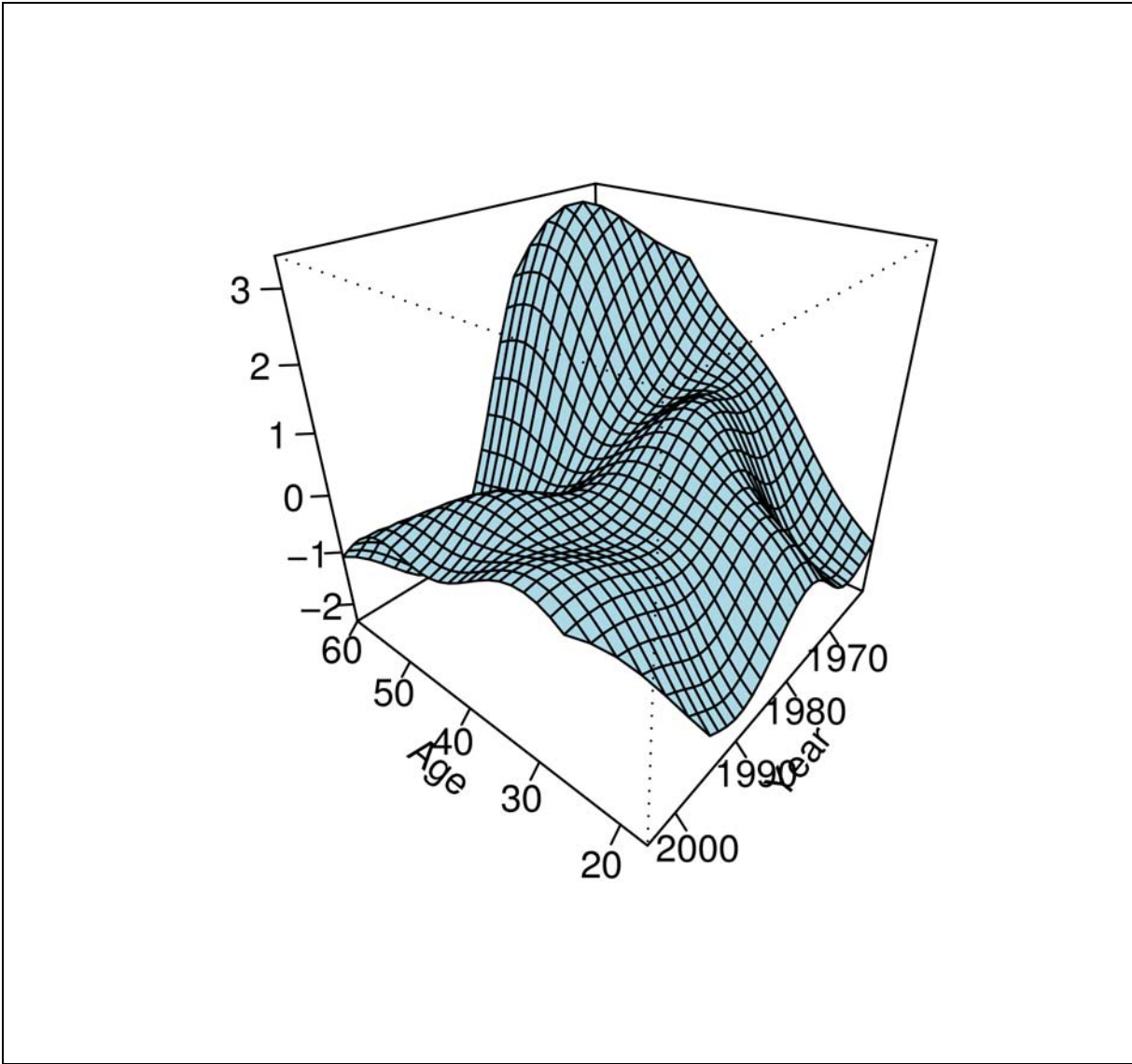
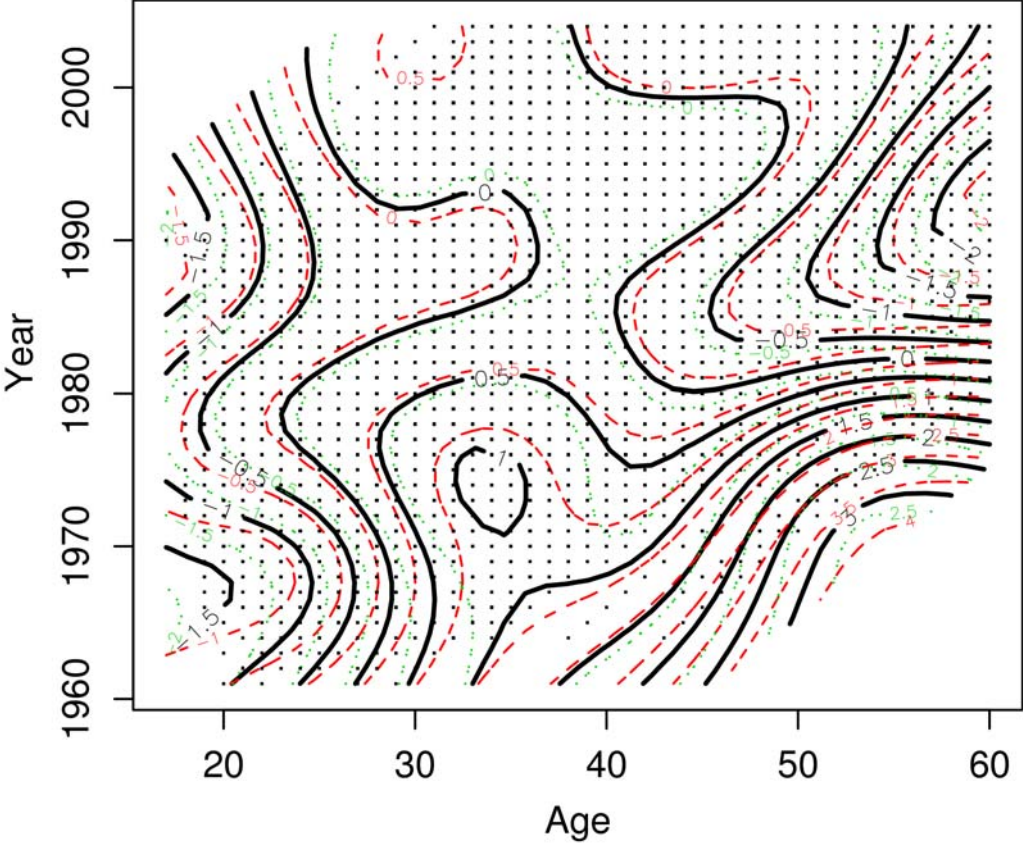


Figure 21: Effect on age and calendar year on the probability of employment



In comparison, the smallest probability of employment is found in Amsterdam, for both Turks and Moroccans. Also, the overall effect is rather small for Hindus in Lisbon. On the other hand, Serbs in Vienna and Cape Verdians in Rotterdam have the highest probability when all the other covariates are 0 (non-nationalised males without higher education or further education in the receiving country, and without prolonged previous employment). Men have a much larger probability of participation than women. Higher school certificates from the country of origin as well as being nationalised have a large positive impact. Interestingly, however, schooling in the receiving country has a negligible effect. As is to be expected, the largest effect is associated with previous labour market experience.

The effects of the interaction terms for education are both positive and large. In contrast to male, females’ participation rates do increase with further education in the receiving country. The interaction term with nationalisation is slightly negative but does not outweigh the main positive effect of nationalisation.

The smooth term for year and age depicted in Figures 20 and 21 shows a general though non-monotonic decline in employment probabilities through calendar time. The highest probabilities are indicated for older people in the late 1960s and early 1970s as well as for middle aged respondents in the early 1980s. However, looking at the contour plot 21, the rather high estimated employment probabilities for older people in the late 1960s and early 1970s is based on only very few observations.

An obvious problem with this modelling approach is the fact that for each respondent up to 20 years of labour market experience enter into the logit model. A first consequence is that estimates of standard errors of coefficients from the model are underestimated since they suppose that the information in the sample is based on some 40,000 observations even though only 2400 people supply it. While there have been proposals for analytic computations of (asymptotically) correct standard errors in this situation (Hin and Carey 2005), the issue is still not even theoretically settled. As Lin and Carroll (2001) have shown, estimators including smooth terms as used here (based on kernels) for longitudinal data may not be p-consistent when non-independent observations are assumed for the fitting procedure.

We use the independence assumption in the fitting procedure. Moreover, the smooth term is based on splines that may be less vulnerable to dependencies in the data than kernel estimates are. Thus we may assume that the estimates themselves are consistent at an appropriate rate to use the jackknife to produce a reliable estimator of the standard errors. The jackknife estimator of standard errors is based on the idea that the variability of estimates can be gauged from the change in estimates when individual observations are deleted from the sample. We thus re-estimate the model with the data on the i -th respondent deleted. The empirical variance of these estimates multiplied by the number of respondents minus the number of effective degrees of freedom used in the original fitting is in general a consistent estimator of the variance of an estimator.

The results are given in columns 5 and 6 of table 61 of the Appendix. The estimated standard errors are roughly 3 times larger than the naive estimators that assume independent observations. Using these standard errors, the effects of schooling (either in the country of origin or the receiving country) are no longer significant. Both stay significant at the 5% level for the interaction with the gender variable so that for women both types of education have a strong positive effect on further employment. Also, the effect of nationalization (which is defined per calendar year) stays positive and significant for both, men and women.

A second consequence of this model choice is that it provides estimates pertaining to effects averaged with respect to the population sampled. It does not provide estimates of what would happen to a particular respondent, given her or his background information. It is, however, the mean effect across individuals. This, it may be argued, is the measure most useful in policy analysis.²⁴

Still, a random effects or conditional model may serve as a benchmark for the results of the marginal model described above. This becomes important since the estimates of reliability of the previous model are open to discussion. The results of a mixed effects model assuming a normally distributed random effect with autocorrelation of order 1 are presented in table below. The corresponding smooth term is plotted in Figures 22 and 23.

²⁴ See the discussion in chapter 7 of Diggle et al. (1994), where the distinction between “population averaged” or “marginal” models as the one presented and “random effects” or “multilevel” or “conditional” models is clearly discussed.

| | Estimate | std. error | z value |
|---------------|----------|------------|---------|
| grbiserb | 2.4060 | 0.1336 | 18.01 |
| grbiturk | 1.3268 | 0.1230 | 10.78 |
| grvieserb | 2.8777 | 0.1430 | 20.12 |
| grvieturk | 1.9305 | 0.1189 | 16.23 |
| grstmor | 1.6503 | 0.1193 | 13.84 |
| grstturk | 1.4381 | 0.1241 | 11.59 |
| grliscap | 2.0974 | 0.1287 | 16.29 |
| grlishin | 1.4698 | 0.1179 | 12.46 |
| gramsmor | 0.4226 | 0.1025 | 4.12 |
| gramsturk | 0.8456 | 0.1102 | 7.67 |
| grotcap | 3.0158 | 0.1593 | 18.93 |
| schoolorg | 0.1407 | 0.0998 | 1.41 |
| edurec | -0.2396 | 0.1050 | -2.28 |
| passp | 0.1717 | 0.0637 | 2.69 |
| B01 | -2.0870 | 0.0886 | -23.55 |
| edur > 0.9 | 0.6826 | 0.0509 | 13.42 |
| schoolorg:B01 | 0.4634 | 0.1349 | 3.44 |
| edurec:B01 | 0.8868 | 0.1439 | 6.16 |
| passp:B01 | -0.0144 | 0.0810 | -0.18 |

Figure 22: Effect on age and calendar year on the probability of employment. Conditional model

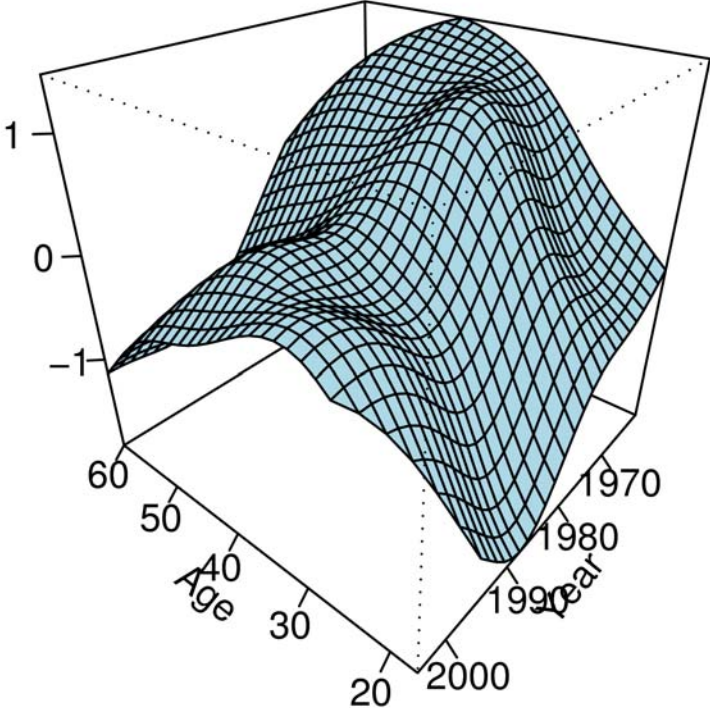
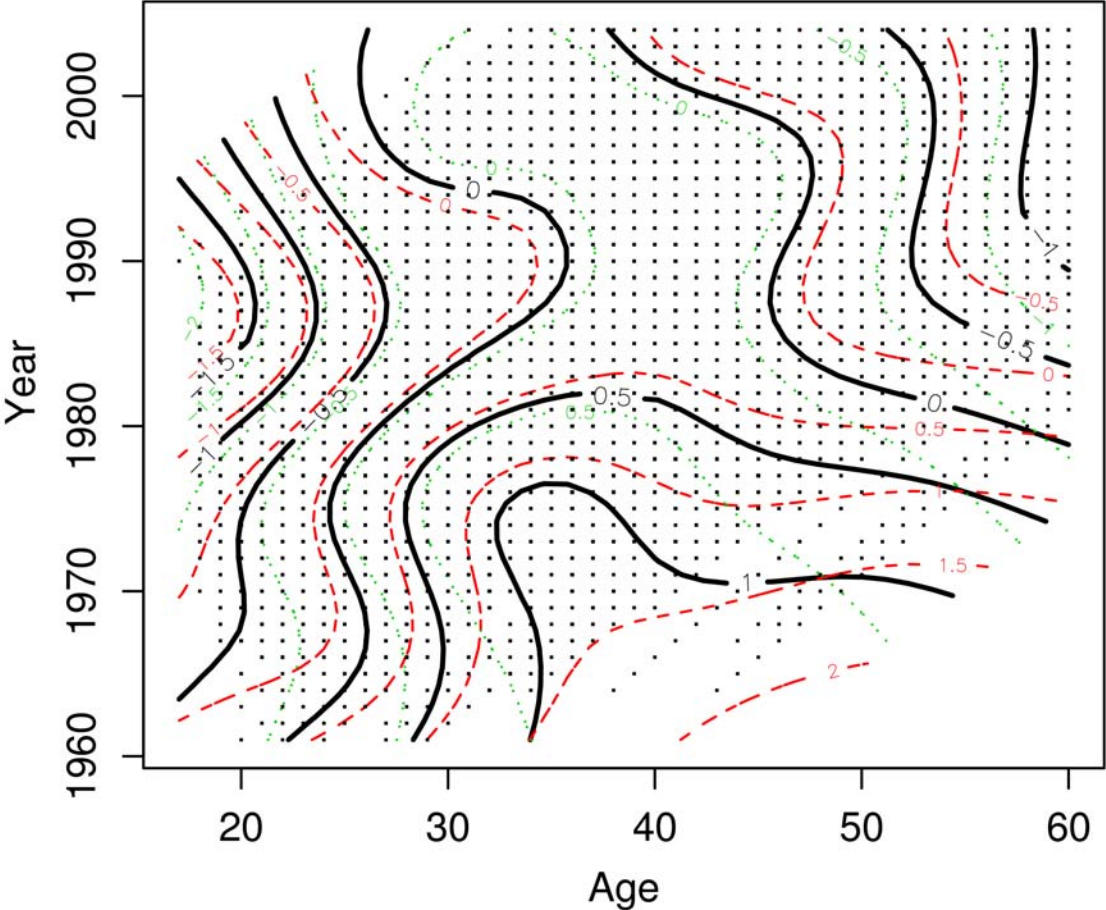


Figure 23: Effect on age and calendar year on the probability of employment. Conditional model



Not unexpectedly in view of an assumed autocorrelation, the influence of the term presenting previous labour market experience is much lower. In comparison to the marginal model, in general (assuming the number of observations diverging to infinity) larger effects should be expected, at least for time independent terms (Diggle et al., 1994, pp. 140). Moreover, in addition to this proportional increase there is a shift in mean effects. These expectations turn out to be correct for most of the City/Group effects. However, the effect of education in the receiving country is now negative and significant. But also in this model, the interaction effects of schooling with gender are both large, positive and significant. Further, the effect of nationalisation is strongly reduced, even though it stays significant.

Looking at the smooth effects of age and calendar year, a similar picture as in the marginal model emerges, except that the strong positive effect for older people in the early history of migration now disappears. But as has been noted, this was due to only rather few observations also in the marginal model.

Conclusions

The labour market experience of the interviewed migrants in the six cities under study is characterized by changes and continuities all along their migration trajectories.

A major change has been the decrease in the employment rates from the middle of their trajectory to the moment of the interview for two different reasons. On the one hand, after at least 15 years of stay and being at least 35 years old, many immigrants reached retirement age. On the other hand unemployment had a significant increase between those two points in time and is particularly severe for certain groups.

The distribution across economic sectors has been more stable. Some changes occurred over time, but they did not alter the broader structural position of immigrants in the labour market. This is also true for occupational composition. A certain amount of movements between types of occupations happened in each city and group, but many immigrants stand in the same kind of occupation during their entire labour market trajectories until the time of interview.

Three points, in particular, must be stressed as we reach the conclusion of this report. The first one has to do with differences in the immigrants' economic participation regimes across groups and cities. In every dimension covered by our research we found important differences at this respect. There are sharp contrasts in the economic sectors in which immigrants participate mostly. In some cases it may be the industry (as in the case of Bielefeld for males from both groups), in other cases it is the construction or the services sector (as in the case of the Capeverdian in Lisbon respectively the Moroccans in Stockholm and the Capeverdian in Rotterdam).

Another example is that groups with the same ethnic background (Turks in Bielefeld, Turks in Amsterdam, for instants) have quite different occupational profiles, which is to some extent is may be due to the specific mode of sampling.

A second point is that immigrants' labour market experience is a gendered one. Compared to men, women in each group and city have a lower labour market participation rate over time (see model 2), despite the fact that their participation increases over time. The Sectoral employment of female migrants across cities is also markedly different compared to those of male migrants. While men are highly concentrated in industry and construction women are mostly to be employed in the service or domestic sector. It should be noted, however, that women's labour situation is heterogeneous across groups and cities. In some groups their participation in the work force is quite low (e.g. Moroccan women in Amsterdam), strongly contrasting with women belonging to other groups (e.g. Capeverdian female migrants from Rotterdam or Serbian women in Bielefeld and Vienna): At the interview date, merely 12% of the studied Moroccan women in Amsterdam participated in the labour market. In other cities and groups, at the same point in time, women' participation rates are above 70%.

Yet, in contrast to male, females' participation rates do increase with further education in the receiving country. The interaction term with nationalisation is slightly negative but does not outweigh the main positive effect of nationalisation (see model 2).

The third point to be stressed is the probability of an upward occupational mobility over time. In general terms, there is no evidence of far-reaching social mobility. More specific findings are that groups such as the Turks are not likely to have significant upward moves and the same happens with women when compared to men. Education is a major factor of upward mobility, unlike the year of arrival, whose effect is insignificant.

3.4 Structural Integration – Housing

Introduction

This subchapter examines the housing situation of the respondents in the LIMITS research. The analysis is focussed on the type of dwelling and on the occupancy ratio, both criteria are considered as indicators of the quality of housing. It is the aim of the analysis to describe differences between the European cities and the ethnic groups, to check changes over time and to identify factors influencing the housing situation.

The study is based on the following two hypotheses:

- The housing situation is more distinctly influenced by standards of the receiving country and the local housing conditions in the respective city than by the country of origin of the respondent.
- The housing situation of the migrants improves over time.

Methods

Data Base

In a number of thematic fields such as jobs, dwelling, language capacity and social integration, the same questions were put to the respondents relating to different points of time. As regards to housing, the complete biography in the receiving country was generally registered including the year of moving into the dwelling and the year of moving out. More detailed information about the type of dwelling, the number of rooms, the number of inhabitants when moving in, is not available for all samples. In some countries this information were collected only for three measurement points, namely for the dwelling the respondent lived in one year after arrival, the dwelling the respondent lived in at the middle of stay and the dwelling the respondent lived in at the moment of the interview. For the sake of comparability in this report of all cities, the subsequent analysis about the housing situation of the first generation migrants is concentrated on the corresponding dwellings at the three measurement points. Due to individual missing values and omissions of certain items the number of included cases may be reduced in some analyses.

Operationalization

The classification of the housing period to the three measurement points “one year after arrival”, “middle of stay” and “moment of the interview” was operationalized by the variables ‘year of first migration into the receiving country’, ‘year of moving into the dwelling’ and ‘year of moving out’. If a respondent did not move for a longer period, it is possible that the same dwelling covers more than one measurement point. In these cases the same dwelling is included into the analyses of several measurement points.

In order to categorise the type of dwelling the respondent were asked:

H04: What kind of dwelling did you live in?

Answers were (1) a container / mobile home (*continue with H08a*), (2) a workers home / hostel (*continue with H08a*), (3) a subletting room in an apartment / house (*continue with H08a*), (4) a rented apartment, (5) a rented house, (6) an owned apartment, (7) an owned house, (8) others (*continue with H08a*).

In the following analysis the items “container/mobile home, “workers home/hostel” and “subletting room” were subsumed to the new category “provisional dwelling”, the items

“rented apartment” and “rented house” to the new category “rented flat or house” and the items “owned apartment”, “owned house” to the new category “owned flat or house”. The dummy-variable (eig) “owning a flat / dwelling” was created for identifying factors influencing the number of rooms of a dwelling by a multivariate regression analysis.

The ratio and the difference of rooms and persons at moving into the dwelling is calculated by the two variables

H06: What was the number of rooms of the dwelling? (*excluding kitchen, bathroom, storage room*)

and

H08: Apart from you, how many other persons lived in the dwelling when you moved in?

The number of persons in the dwelling is composed by the sum of other persons (see question H08) + 1 (the respondent). The ratio is the division of the number of persons by the number of rooms. The difference is composed by a simple subtraction of the number of persons from the number of rooms. As the number of rooms was not asked for provisional dwellings (see question H04) all analysis referring to the number of rooms is based only on cases of respondents living in a flat or house.

Whereas the number of cohabitants in prior dwellings was consistently measured at the moment of moving in, the phrasing differs unfortunately for the dwelling the respondent lived in at the moment of the interview. In Bielefeld, Stockholm and Vienna the respondents were asked how many other persons lived in the dwelling at the moment of moving in. In Amsterdam, Rotterdam and Lisbon the respondents were asked about the number of cohabitants in the dwelling at the moment of the interview. Thus, the number of cohabitants in the dwelling at the moment of the interviews does not refer to the same point of time in the samples of Bielefeld, Stockholm and Vienna on the one hand and Amsterdam, Rotterdam and Lisbon on the other hand.

The dummy variable “substandard dwelling” was composed by the two variables “type of dwelling” and “difference of the number of rooms and number of persons”. The value is 1 for respondents living either in a provisional dwelling or in a dwelling with two or more rooms less than household members at the time of moving in.

In order to identify factors influencing the housing situation questions from other subject areas were included in the analysis. These variables pertain to the domains of citizenship, income and work.

The variable “naturalized” records if the respondent had a passport of the receiving country at the moment of moving into the dwelling.

Pre15 Do you have a valid passport of the receiving country?

Answers were (1) Yes, since:, (2) No

The personal and the household income at the moment of the interview were asked in the questions J18 and J19.

J18 It would be very helpful if you could let us know the approximate or, if possible, the exact amount of your income net of taxes and social security.

J19 Could you let us know the approximate or, if possible, the exact amount of your total net household income, net of taxes and social security?

Answers were (1) No income, (2) Up to €500, (3) Between €500 and €1,000, (4) Between €1,000 and €1,500, (5) Between €1,500 and €2,000, (6) More than €2,000, (7) Don't know, (8), Don't answer

The categories 1, 2, and 3 were combined in the dummy-variable “low income” (lincome), categories 4 and 5 in the variable “moderate income” (mincome) and category 6 was designated “high income” (hincome).

We looked if the respondent had work, at the moment he moved into a (new) home. The dummy-variable (work) “working at the moment of moving into the dwelling” was built by including information of the activities biography. The value is “1” for respondents who were full time employed, part time employed, casually working or self-employed at the moment of moving into the corresponding dwelling. In some cases respondents had more than one activity in one or several periods (e.g. housekeeping and full time employed or education / training and part time employed,). If one of the declared activities corresponded with the named categories, the respondent was classified as “working” in the corresponding period.

Results of the analysis

Type of dwelling by city and group at the moment of the interview

For most of the respondents the information about the kind of dwelling at the moment of the interview is available.

Table 14: City and group by kind of dwelling at the moment of the interview

| | BieSer | BieTur | LisCap | LisHin | RotCap | AMor | ATur | StoMor | StoTur | VieSer | VieTur | total |
|------------------------|--------|--------|--------|--------|--------|-------|-------|--------|--------|--------|--------|-------|
| absolute | | | | | | | | | | | | |
| Provisional dwelling* | 1 | 0 | 23 | 33 | 3 | 0 | 1 | 4 | 6 | 5 | 1 | 77 |
| rented flat or house | 228 | 245 | 112 | 31 | 189 | 281 | 292 | 214 | 204 | 243 | 275 | 2314 |
| owned flat or house | 72 | 56 | 152 | 133 | 94 | 2 | 21 | 81 | 82 | 26 | 18 | 737 |
| other kind of dwelling | 0 | 0 | 13 | 103 | 6 | 0 | 0 | 0 | 4 | 26 | 7 | 159 |
| total (valid cases) | 301 | 301 | 300 | 300 | 292 | 283 | 314 | 299 | 296 | 300 | 301 | 3287 |
| missing cases | 0 | 00 | 0 | 0 | 9 | 1 | 2 | 1 | 4 | 0 | 0 | 17 |
| total of respondents | 301 | 301 | 300 | 300 | 301 | 284 | 316 | 300 | 300 | 300 | 301 | 3304 |
| in % | | | | | | | | | | | | |
| provisional dwelling* | 0.3 | 0.0 | 7.7 | 11.0 | 1.0 | 0.0 | .3 | 1.3 | 2.0 | 1.7 | 0.3 | 2.3 |
| rented flat or house | 75.7 | 81.4 | 37.3 | 10.3 | 64.7 | 99.3 | 93.0 | 71.6 | 68.9 | 81.0 | 91.4 | 70.4 |
| owned flat or house | 23.9 | 18.6 | 50.7 | 44.3 | 32.2 | 0.7 | 6.7 | 27.1 | 27.7 | 8.7 | 6.0 | 22.4 |
| other kind of dwelling | 0.0 | 0.0 | 4.3 | 34.3 | 2.1 | 0.0 | 0.0 | 0.0 | 1.4 | 8.7 | 2.3 | 4.8 |
| total (valid cases) | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

Limits, EU sample 2006, data edition as of 15 Feb 06

* provisional dwelling includes the categories workers home, subletting room and shack

Table 14 displays that a rented flat or house is the most frequent kind of housing in the concerned European cities. More than 70 % of the respondents were living in this type of dwelling at the moment of the interview. Another 20 % of the respondents were living in an owned flat or house.

Furthermore considerable differences are revealed between the cities. The situation in Lisbon differs noticeable from the other cities. A highly above average share of the Lisbon Cape Verdians as well as of the Lisbon Hindus was living in a provisional or an owned dwelling. The reason is that many of the first generation migrants in Lisbon moved into

“barracas”, a very precarious kind of dwelling, which was quite common in poor urban areas in Portugal in the recent past (see deliverable 11, final report on Lisbon Groups: 9). Accordingly the share of the Lisbon first generation migrants in a rented flat or house was very low. Presumably there are not only differences as to the distribution of the kind of dwelling. According to information by the Portuguese partners also qualitative differences exist. Many of the owned houses of their respondents have the character of a shack.

The differences between the respondents in the other cities are less distinctive. In all cities and groups the rented flat or house is by far the most common dwelling. Nevertheless the results seem to confirm that the living situation of the migrants is more influenced by the city than by the ethnic group. Whereas e.g. nearly 30 % of the Turks in Stockholm were living in an owned dwelling, the share of the Turks in Bielefeld amounts to 20 % and the share of the Turks in Amsterdam or Vienna is only 6 %. The differences between the two cities in the Netherlands are interesting. Nearly one third of the Cape Verdians in Rotterdam was living in their own dwelling whereas the share of both ethnic groups in Amsterdam amounts to less than 10 %. This indicates that the housing conditions are not only influenced by national standards but rather by conditions pertaining to the local context.

Table 15: Average duration of stay in the receiving country till moving into the last dwelling and average duration of occupancy in the dwelling at the moment of the interview

| | BieSer | BieTur | LisCap | LisHin | RotCap | AMor | ATur | StoMor | StoTur | VieSer | VieTur | total |
|--|--------|--------|--------|--------|--------|------|--------|--------|--------|--------|--------|-------|
| average duration of stay in years | | | | | | | | | | | | |
| provisional dwelling* | (4.0) | 0.0 | 10.1 | 1.2 | (12.7) | 0.0 | (15.0) | (19.0) | (8.2) | (27.0) | (8.0) | 7.8 |
| rented flat or house | 17.0 | 14.9 | 14.8 | 11.7 | 16.8 | 14.5 | 13.9 | 15.3 | 11.5 | 14.3 | 15.5 | 14.8 |
| owned flat or house | 20.3 | 18.3 | 12.9 | 8.1 | 17.5 | 20.5 | 16.7 | 17.9 | 12.8 | 16.0 | 20.1 | 14.7 |
| other kind of dwelling | 0.0 | 0.0 | 14.6 | 16.0 | (21.8) | 0.0 | 0.0 | 0.0 | (16.3) | 11.2 | (6.4) | 14.9 |
| total of respondents | 17.8 | 15.6 | 13.5 | 10.4 | 17.2 | 14.5 | 14.1 | 16.1 | 11.9 | 14.4 | 15.5 | 14.6 |
| average duration of occupancy of the dwelling in years | | | | | | | | | | | | |
| provisional dwelling | (30.0) | 0.0 | 17.3 | 21.6 | (20.7) | 0.0 | (15.0) | (10.5) | (9.0) | (5.0) | (17.0) | 17.6 |
| rented flat or house | 14.2 | 12.1 | 11.1 | 11.0 | 11.5 | 13.6 | 13.2 | 9.5 | 8.4 | 11.6 | 9.2 | 11.6 |
| owned flat or house | 11.2 | 9.1 | 15.1 | 14.7 | 9.6 | 11.0 | 10.8 | 10.6 | 9.1 | 10.7 | 7.4 | 11.9 |
| other kind of dwelling | 0.0 | 0.0 | 12.5 | 6.9 | (7.5) | 0.0 | 0.0 | 0.0 | (11.3) | 18.8 | (19.3) | 10.0 |
| total of respondents | 13.5 | 11.6 | 13.7 | 12.4 | 10.9 | 13.6 | 13.0 | 9.8 | 8.7 | 12.1 | 9.3 | 11.7 |

Limits, EU sample 2006, data edition as of 15 Feb 06

() = limited significance because less than 10 cases

Table 15 points out that the designation “provisional dwelling” in many instances does not really cover this particular housing situation. This is especially the case in Lisbon²⁵. The average duration of occupancy in the “provisional” dwelling of the Lisbon Cape Verdians at the moment of the interview amounts to 17.3 years and of the Lisbon Hindus even 21.6 years. For these respondents, living in a “barraca” for many years has become the normal state of affairs. The very low average duration in the receiving country till moving into the “provisional” dwelling of only 1.2 years indicates that especially in the case of Lisbon Hindus a larger part could not better their housing conditions since their arrival in Portugal.

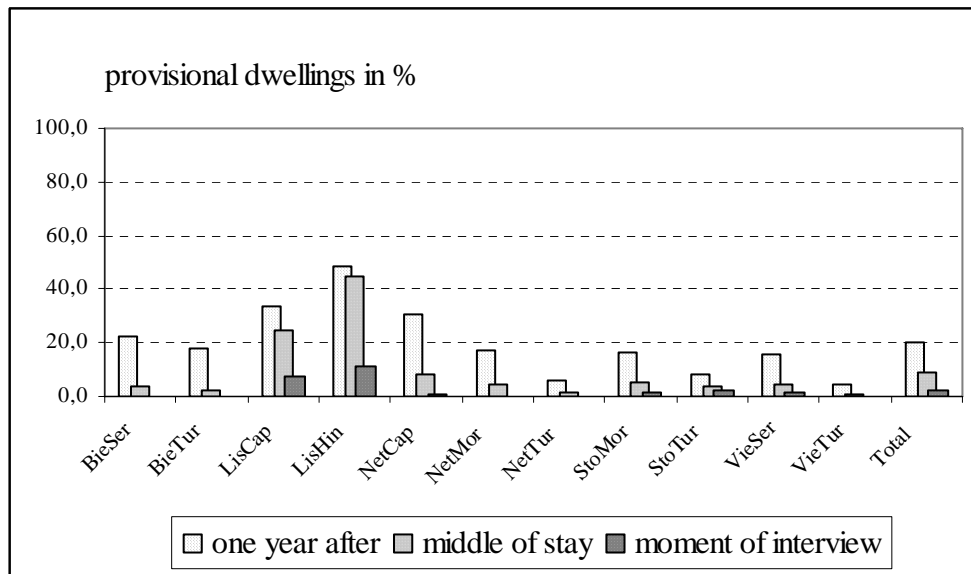
²⁵ Very high average durations of stay in the provisional dwelling can be observed also in the other cities. However, because of the small number of respondents we cannot deduct anything from this.

In general, the duration of stay of the respondents in the present dwelling is considerable. On average they have been living in the respective dwelling for nearly 12 years.

Changes in the type of dwelling over the three measurement points by city and group

Apart from the present situation the progress over time in the conditions of housing is an important indicator for the integration in the housing market and for changes in the quality of life.

Figure 24: Share of provisional dwellings in % at the three measurement points

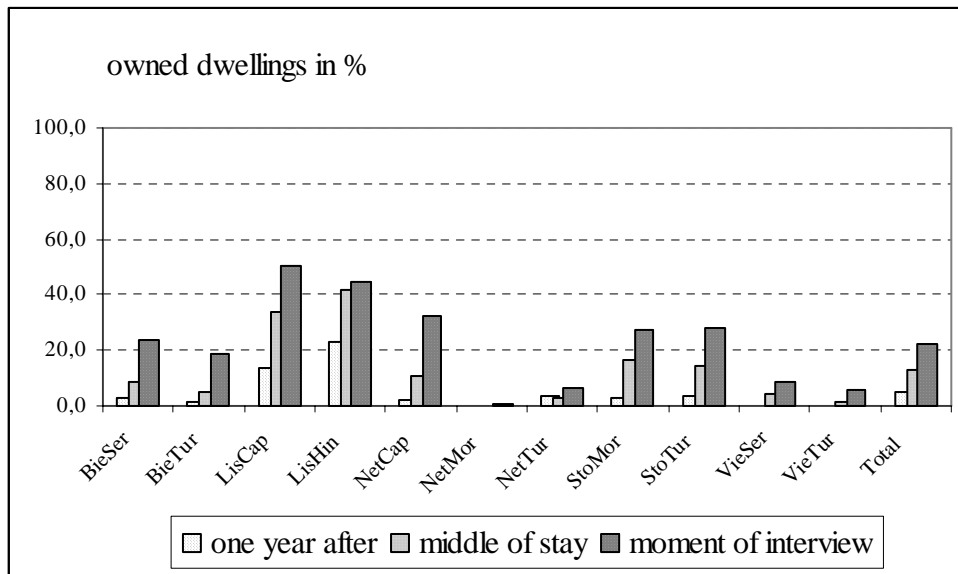


Limits, EU sample 2006, data edition as of 15 Feb 06

Figure 24 illustrates that the share of provisional dwellings decrease imposingly over the years. One year after their arrival 20 % of the respondents lived in such a kind of dwelling. As regards to the present situation this kind of housing conditions became nearly irrelevant for the first generation migrants in the European cities under study. Even in Lisbon, the most affected city, the situation is changing. Particularly in the last years the number of respondents living in a provisional dwelling fell noticeably. Whereas the share of respondents at the middle of stay is still nearly as high as the share one year after migration, a noticeable decrease occurred in the period between the middle of stay and the moment of the interview.

The reserve tendency is to observe as to respondents living in a flat or house of their own (see Figure 25). One year after migration less than 5 % lived in an owned dwelling, while at the moment of the interview the share exceeds 20 %. Apart from Lisbon, growing rates can be observed especially in Bielefeld, Rotterdam and Stockholm. In the case of Amsterdam and Vienna the number of owned dwellings also increases but the share stays on a nearly negligible level.

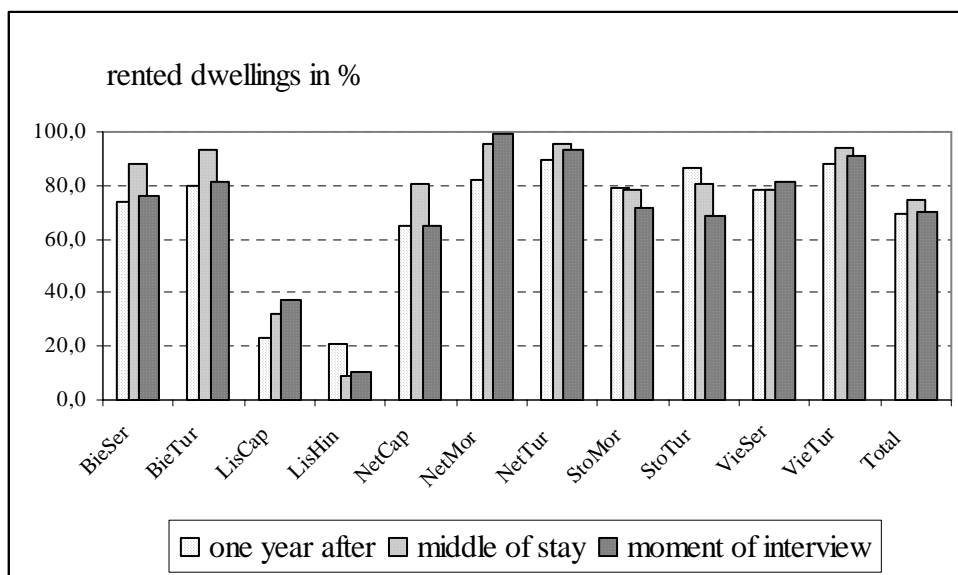
Figure 25: Share of owned dwellings in % at the three measurement points



Limits, EU sample 2006, data edition as of 15 Feb 06

Correspondingly to the declining share of provisional dwellings and the increasing share of owned dwellings the share of rented dwellings stays nearly stable (see Figure 26).

Figure 26: Share of rented dwellings at the three measurement points



Limits, EU sample 2006, data edition as of 15 Feb 06

The detailed view to the several cities shows that the process varies in connection with the local situation. Obviously the city is the factor, which determines the process except for Lisbon. There, in the case of Cape Verdians the share of respondents in a rented dwelling increased by nearly 10 %, whereas in the case of the Hindus the share declined by nearly 10 %. The development in the share of renters differs again in the case of the Netherlands between the Cape Verdians in Rotterdam on the one hand and the Moroccans and Turks in Amsterdam on the other hand.

In general the tendency emerges that the share of respondents in a rented dwelling one year after migration resembles the share of respondents at the moment of the interview. A higher

share often characterizes the middle of stay. This is the case in Bielefeld and Rotterdam. Obviously the respondents moved from a provisional dwelling into a rented dwelling and at least into an owned dwelling. In the case of Stockholm the share of respondents living in a rented dwelling decreases continuously. Whereas in the case of Amsterdam and Vienna, the share of respondents in rented dwellings increases or stays stable. This is coherent with the fact that a very low share of respondents lives in an owned dwelling there.

The results with regard to changes in the kind of dwelling confirm the expected process. The housing conditions of first generation migrants better definitely over time. The share of provisional dwellings declines and in reverse the share of rented and/or owned dwellings advances.

Ratio of the number of persons and rooms in the dwellings at the moment of the interview

The ratio of the number of rooms and the number of persons in the dwelling or in other terms the ratio of occupancy is another important indicator for the quality of housing apart from the kind of dwelling.

Before interpreting the results it is important to recapitulate that the number of persons in the dwelling the respondent lived in at the moment of the interview were not measured consistently in the different samples. In Bielefeld, Stockholm and Vienna were registered the number of cohabitants at the moment of moving into the dwelling, in Amsterdam, Rotterdam and Lisbon the number of cohabitants at the moment of the interview.

Another important fact is that the number of rooms of the dwelling was only asked in the case of rented or owned flats and rented or owned houses (see chapter 2.2, question h08). In most subtypes of the provisional dwellings and in the imprecise category “others” it did not make sense to ask this. Table 16 indicates that this constraint doesn’t have consequences for the average number of persons in the household except for Lisbon. There, the average number of persons differs between the first row including the total of respondents and the second row including solely the respondents living in a flat or house. This is a coherent result because only in the case of Lisbon a relevant number of respondents lived in the excluded categories “provisional dwelling” and “other kind of dwelling” (see table 14).

Table 16: Ratio of rooms and persons in the dwelling at moving into the dwelling the respondent lived in at the moment of the interview

| | Bie Ser | Bie Tur | Lis Cap | Lis Hin | Net Cap | Net Mor | Net Tur | Sto Mor | Sto Tur | Vie Ser | Vie Tur | total |
|--|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|-------|
| mean values | | | | | | | | | | | | |
| no. of persons (all dwellings) | 3.1 | 4.2 | 4.0 | 4.4 | 3.2 | 4.8 | 4.3 | 3.7 | 3.9 | 2.7 | 3.6 | 3.8 |
| no. of persons (only in flats/houses) | 3.1 | 4.2 | 4.0 | 4.0 | 3.1 | 4.8 | 4.3 | 3.7 | 3.9 | 2.7 | 3.6 | 3.8 |
| no. of rooms (only in flats/houses) | 3.8 | 3.5 | 3.5 | 3.8 | 3.5 | 4.1 | 4.0 | 4.3 | 3.7 | 2.2 | 2.6 | 3.6 |
| ratio rooms/person (only flats/houses) | 1.4 | 1.0 | 1.1 | 1.1 | 1.4 | 1.0 | 1.1 | 1.4 | 1.1 | 1.0 | 0.8 | 1.1 |

Limits, EU sample 2006, data edition as of 15 Feb 06

Table 16 indicates that the average number of persons, the average number of rooms and the ratio of rooms and persons differ between the cities and ethnic groups. The general tendency that an increasing number of persons in the household entails a low ratio of rooms and persons is confirmed by the results. Turks in Bielefeld, Cape Verdians and Hindus in Lisbon, Moroccans and Turks in Amsterdam appertain to the samples with a high average number of persons in the household. The ratio of rooms and persons for these groups amounts to 1.0 – 1.1. The Serbs in Bielefeld, Cape Verdians in Rotterdam and Moroccans in

Stockholm obtain a relatively low average number of members in the household. Accordingly the ratio of rooms and persons is with an amount of 1.4 noticeable higher. An exception is the situation in Vienna. The samples of Viennese Serbs as well as of the Turks have a relative low average number of persons in the household and likewise a low ratio of occupancy.

Table 17: Difference of the number of persons and the number of rooms at moving into the dwelling the respondent lived in at the moment of the interview*

| ratio of rooms and persons | Bie Ser | Bie Tur | Lis Cap | Lis Hin | Net Cap | Net Mor | Net Tur | Sto Mor | Sto Tur | Vie Ser | Vie Tur | total |
|----------------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-------|
| | N | | | | | | | | | | | |
| more rooms | 142 | 70 | 73 | 48 | 134 | 80 | 99 | 126 | 77 | 42 | 32 | 923 |
| equal | 91 | 76 | 63 | 52 | 94 | 58 | 77 | 51 | 79 | 94 | 68 | 803 |
| 1 person more | 50 | 65 | 63 | 37 | 38 | 58 | 71 | 55 | 61 | 94 | 92 | 684 |
| 2+ pers. More | 17 | 87 | 64 | 27 | 13 | 87 | 66 | 50 | 56 | 39 | 101 | 607 |
| total | 300 | 298 | 263 | 164 | 279 | 283 | 313 | 282 | 273 | 269 | 293 | 3017 |
| | in % | | | | | | | | | | | |
| more rooms | 47.3 | 23.5 | 27.8 | 29.3 | 48.0 | 28.3 | 31.6 | 44.7 | 28.2 | 15.6 | 10.9 | 30.6 |
| equal | 30.3 | 25.5 | 24.0 | 31.7 | 33.7 | 20.5 | 24.6 | 18.1 | 28.9 | 34.9 | 23.2 | 26.6 |
| 1 person more | 16.7 | 21.8 | 24.0 | 22.6 | 13.6 | 20.5 | 22.7 | 19.5 | 22.3 | 34.9 | 31.4 | 22.7 |
| 2+ pers. More | 5.7 | 29.2 | 24.3 | 16.5 | 4.7 | 30.7 | 21.1 | 17.7 | 20.5 | 14.5 | 34.5 | 20.1 |
| total | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |

Limits, EU sample 2006, data edition as of 15 Feb 06

*without respondents living in provisional dwellings

Another basic indicator for the occupancy of the dwelling and for the quality of life is the difference of the number of persons and the number of rooms. More than 55 % of the households moved at their last relocation or lived at the moment of the interview in a home with the same number of rooms as household members or even with more rooms than persons. Nearly 23 % of the respondents moved into or lived in a dwelling with one room less than household members, further 20 % of the respondents moved into or lived in a dwelling with two or more rooms less than persons. Apparently the distribution of the households with regard to the difference of the number of persons and the number of rooms resemble the distribution with regard to the ratio of occupancy (see table 17). Groups with a high average number of persons in the household tend to live in dwellings with less rooms than persons (e.g. Turks in Bielefeld, Cape Verdians in Lisbon, Morrocans in Amsterdam). Groups with a low average number of persons live more often in dwellings with at least the same number of rooms (e.g. Serbs in Bielefeld, Cape Verdians in Rotterdam). The bivariate analysis does not reveal a correlation between the difference of number of rooms and persons on the one hand and the group of origin or the city of the sample on the other hand. Besides, the difference of the number of rooms and the number of persons has to be interpreted carefully in regard to the quality of life. Whereas many households with four persons in a flat of two rooms are estimated to live in relatively crowded circumstances, the difference of two rooms is accepted in the case of many larger sized households as an adequate dwelling.

Factors influencing the number of rooms of the dwelling at the moment of the interview

As we have seen, the two indicators for the occupancy of the dwellings (the ratio of the number of rooms and the number of persons and the difference of the number of rooms and the number of persons) are strongly influenced by the number of persons. For this reason and the heterogeneity of the average number of persons of the samples the results of a bivariate analysis about the occupancy are hardly illuminative. It is impossible to decide if the observed

occupancy is influenced by the average number of household members of the sample or by specific housing conditions of the group. For this reason factors influencing the number of rooms of the dwellings at the moment of the interview were identified below in a multivariate regression analysis.

The model is based on the assumptions that the number of rooms as the dependent variable correlates:

1. positively with the number of household members at the moment of moving into the dwelling,
2. positively with the economic status,
3. positively with the duration of stay in the receiving country,
4. with the city, where the respondents lives

The following independent variables²⁶ were included into the model:
number of household members:- perzahl

economic status: - eig (living in an owned dwelling at the moment of the interview)

Table 1 hincome (high household income at the moment of the interview)

- mincome (moderate household income at the moment of the interview)

- work (working at the moment of moving into the dwelling)

duration of stay: - aufdauer

cities: - samples in cities and groups, (reference group: Serbs in Vienna)

other variables - male

- naturalized (at the moment of moving into the dwelling)

Table 18: Distribution of the key variables “economic status” and “others” of the respondents in a rented or owned dwelling

| % | Bie Ser | Bie Tur | Lis Cap | Lis Hin | Net Cap | Net Mor | Net Tur | Sto Mor | Sto Tur | Vie Ser | Vie Tur | total |
|-------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-------|
| male | 53.3 | 48.2 | 49.6 | 67.1 | 54.4 | 53.7 | 42.8 | 71.5 | 58.4 | 55.8 | 60.8 | 55.5 |
| naturalized | 2.7 | 11.3 | 37.9 | 67.7 | 74.6 | 18.4 | 37.7 | 76.3 | 67.1 | 82.5 | 75.4 | 49.0 |
| hincome | 41.8 | 28.4 | 7.7 | 14.3 | 46.1 | 4.5 | 17.8 | 45.7 | 45.5 | 30.5 | 19.9 | 27.0 |
| mincome | 42.4 | 53.3 | 46.8 | 50.0 | 36.2 | 55.9 | 59.9 | 45.7 | 39.8 | 50.8 | 62.0 | 50.0 |
| work | 75.7 | 51.2 | 59.5 | 81.1 | 86.9 | 38.5 | 42.2 | 83.7 | 69.2 | 78.1 | 72.4 | 66.4 |

Limits, EU sample 2006, data edition as of 15 Feb 06

Table 18 indicates that the income of the households, the activity status of the respondents and the share of the naturalized respondents at the moment of moving into the dwelling differ considerably among the cities and the groups.

The regression analysis confirms the importance of the number of persons belonging to the household at moving in as a predictor of the number of rooms of the dwellings (see table 19). The corresponding beta value is the highest of all in the model and highly significant. The B value indicates that with each additional person the number of rooms increases by 0.275. So that it is also confirmed that large households generally abstain from moving into a dwelling with a balanced ratio as to the number of persons and rooms and that they settle for fewer rooms.

²⁶ further information about the operationalization of the variables see in chapter 2.2

Furthermore is noticeable that respondents living in an owned dwelling dispose of considerably more rooms than respondents in a rented dwelling. The income has also a positive and significant effect. As presumed, the effect of a high income with more than 2000 Euro (beta = 0.166) is much more distinctive than the effect of the moderate income between 1000 and 2000 Euro (beta = 0.044). The variable work is without any effect. Obviously the information, if the respondent was working at the moment of moving into the dwelling, is not sufficiently differentiated. A more specific reference to the kind or the status of the occupation is not available. Besides it was not a condition of the interview that the interviewee is the head of the household, so that the occupational and the financial situation of the respondent do not automatically influence the economic situation of the household. As the variable work did not have any effect as well in a separate analysis for women and men (one model for women, another model for men), the explication that the variable work is not sufficiently differentiated seems to be admittedly more relevant. Nevertheless the variables about the ownership and the household income confirm that a better economic position has a significant effect on the number of rooms and lastly to the occupancy rate when the number of persons is controlled in the model.

Table 19: Linear Regression on the number of rooms (only respondents in rented/owned flats or dwellings)

| Variable | B | | Beta | | Significance |
|-------------|-------|---|-------|---|--------------|
| (Konstante) | 1.158 | | | | .000 |
| perzahl | .275 | * | .323 | * | .000 |
| male | -.003 | | -.001 | | .954 |
| naturalized | .069 | | .024 | | .251 |
| eig | .891 | * | .265 | * | .000 |
| hincome | .540 | * | .166 | * | .000 |
| mincome | .128 | * | .044 | * | .034 |
| work | -.015 | | -.005 | | .786 |
| aufdauer | -.001 | | -.007 | | .688 |
| bieser | 1.099 | * | .204 | * | .000 |
| bietur | .917 | * | .170 | * | .000 |
| liscap | .637 | * | .133 | * | .000 |
| lishin | .631 | * | .102 | * | .000 |
| rotcap | .836 | * | .147 | * | .000 |
| amsmor | 1.519 | * | .317 | * | .000 |
| amstur | 1.520 | * | .301 | * | .000 |
| stomor | 1.889 | * | .367 | * | .000 |
| stotur | .987 | * | .206 | * | .000 |
| vietur | .149 | | .034 | | .117 |

Dependent Variable: h09r, Number of observations used n=2200

| R | R-Square | Corrected R-Square | Standard Error of the Estimation | | |
|------------|----------------|--------------------|----------------------------------|--------|--------------|
| .660(a) | .436 | .432 | 1.08593 | | |
| | Sum of Squares | df | Mean Sum of Squares | F | Significance |
| Regression | 1989.719 | 18 | 110.540 | 93.738 | .000(a) |
| Residuen | 2571.925 | 2181 | 1.179 | | |
| Gesamt | 4561.644 | 2199 | | | |

Contrary to the assumption that the duration of stay correlates positively with the number of rooms of the dwelling, the correspondent variable has no effect in the tested model. An important reason is that the analysis includes only dwellings the respondents lived in at the moment of the interview. The average duration of stay at moving into these dwellings amounts to nearly 15 years (see table 15). The analysis about the years of stay indicates that above 70 % of the respondents lived at least 10 years in the country, when they moved into the dwelling. Thus, the majority of the respondents were already long-established in the receiving country and had overcome the difficulties of newcomers as e.g. to acquire elementary knowledge about how to get a dwelling. Evidently the effect of the duration of stay has to be tested in another way, namely by taking into account the changing housing conditions in different dwellings over time. For this kind of analysis the regression analysis is not the appropriate method. It does not allow to include different dwellings of the same respondents in one model because of persisting interdependencies between the different dwellings of the respondents and attributes of the respondent and the household.

The analysis reveals significant effects of the cities, which were not identifiable by the bivariate evaluation before. Significant and positive effects relatively to the reference group of Serbs in Vinna are observed for all groups in all the cities except for the Turks in Vienna. The beta values of the two ethnic groups in the same city are quite similar. This means that the households in the respective cities dispose of a nearly equivalent number of rooms regardless of their ethnic origin, if the economic situation and the number of persons are controlled for. The non significant values of the Turkish Viennese in regard to the reference groups of Serbisch Viennese fit in. The results confirm the assumption that the housing market in the respective cities influence the quality of the individual dwelling conditions.

Sex and citizenship of the respondent have no effect on the number of rooms of the household. Especially as to the sex of the respondent this result was expected. Most of the migrants of first generation live together with their partner with or without children in the same dwelling. This implicates that the occupancy is similar for both partners.

Recapitulating the results, the multivariate regression analysis indicates that the main factor influencing the number of rooms of the dwellings the respondents lived in at the moment of the interview, is the number of persons of the household. Furthermore the number of rooms is influenced by the economic status of the household and by the city where the respondents were interviewed.

Changes in the ratio of the number of persons and rooms over time

Next I shall analyse, if the occupancy of the dwelling changes over time by comparing the ratio of the number of persons and rooms and the share of respondents living in crowded

conditions at the three measurement points. Because of limitations of the data the analyses refers only to respondents living in a flat or house at the several measurement points.

Table 20 indicates that the average number of persons in the households decreased over time in nearly all groups, in some samples as the Cape Verdians in Rotterdam considerably. Exceptions are the Serbs in Bielefeld, the Moroccans in Stockholm and the Turks in Vienna, where the number of persons increased. In the case of the Turks in Stockholm and the Serbs in Vienna the number of persons in the dwelling one year after arrival and at the moment of the interview was nearly identical. Simultaneously the average number of rooms of all samples rose.

The decrease in household members over the complete period of stay in the receiving country does not reflect a decrease in the size of families over the time. A possible explication for the numerous household members and for the overcrowded housing situation at the first measurement point one year after migration is, that a major part of the respondents came alone as single or without their family in the country for working some time and that they shared a dwelling with other migrants in the same situation. As they planed to return to their places of origin, they accepted to live some time in crowded circumstances with other “guest workers”. In a later period, when it was visible that the return deferred, they married or joined their families in the new country and formed households with their partner and children in a dwelling of their own.

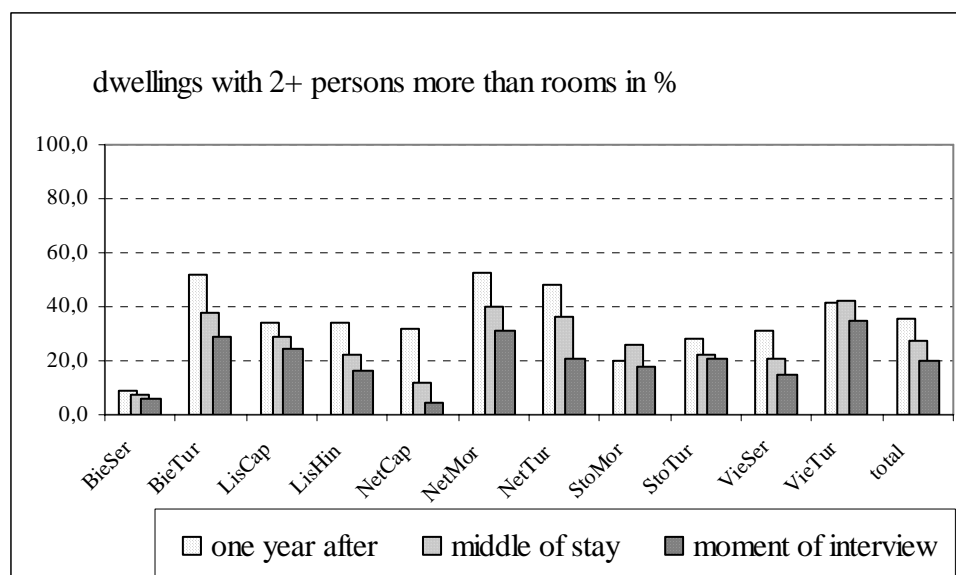
Table 20: Average number of persons, of rooms and the ratio of occupancy at the three measurement points

| | Bie Ser | Bie Tur | Lis Cap | Lis Hin | Net Cap | Net Mor | Net Tur | Sto Mor | Sto Tur | Vie Ser | Vie Tur | total |
|-------------------------------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|-------|
| average no. of persons | | | | | | | | | | | | |
| 1 year after arrival | 2.7 | 4.6 | 4.4 | 4.6 | 4.6 | 5.5 | 4.9 | 2.9 | 3.8 | 2.7 | 3.0 | 3.9 |
| middle of stay | 3.2 | 4.3 | 4.3 | 4.3 | 3.6 | 5.1 | 4.6 | 4.1 | 4.1 | 2.6 | 3.3 | 4.0 |
| moment of interview | 3.1 | 4.2 | 4.0 | 4.0 | 3.1 | 4.8 | 4.3 | 3.7 | 3.9 | 2.7 | 3.6 | 3.8 |
| average no. of rooms | | | | | | | | | | | | |
| 1 year after arrival | 2.8 | 2.9 | 3.2 | 3.5 | 3.5 | 3.4 | 3.4 | 3.0 | 3.0 | 1.7 | 1.6 | 2.9 |
| middle of stay | 3.4 | 3.2 | 3.5 | 3.7 | 3.5 | 3.9 | 3.7 | 4.0 | 3.6 | 2.0 | 2.0 | 3.3 |
| moment of interview | 3.8 | 3.5 | 3.5 | 3.8 | 3.5 | 4.1 | 4.0 | 4.3 | 3.7 | 2.2 | 2.6 | 3.6 |
| ratio no. of rooms / no. of persons | | | | | | | | | | | | |
| 1 year after arrival | 1.2 | .8 | .9 | .9 | .9 | .8 | .9 | 1.3 | .9 | .8 | .7 | .9 |
| middle of stay | 1.2 | .9 | .9 | 1.0 | 1.1 | .9 | .9 | 1.2 | 1.0 | .9 | .7 | 1.0 |
| moment of interview | 1.4 | 1.0 | 1.1 | 1.1 | 1.4 | 1.0 | 1.1 | 1.4 | 1.1 | 1.0 | .8 | 1.1 |

Limits, EU sample 2006, data edition as of 15 Feb 06

An explication for the decreasing number of persons in the dwelling at the moment of the interview is that the children of the respondents grow up in the meantime and built households of their own. The simultaneously increasing average number of rooms indicates besides that many households tried systematically to move into a less congested housing situation. The two tendencies, the decreasing number of persons and the increasing number of rooms resulted in a visibly improved occupancy. One year after the first arrival the ratio of number of rooms and number of persons amounts to less than one room per person for nearly all groups, whereas the values for the dwelling at the moment of the interview scatter between 1.0 and 1.4 except for the Turks in Vienna.

Figure 27: Share of dwelling with 2 or more persons than rooms at the three measurement points



Limits, EU sample 2006, data edition as of 15 Feb 06

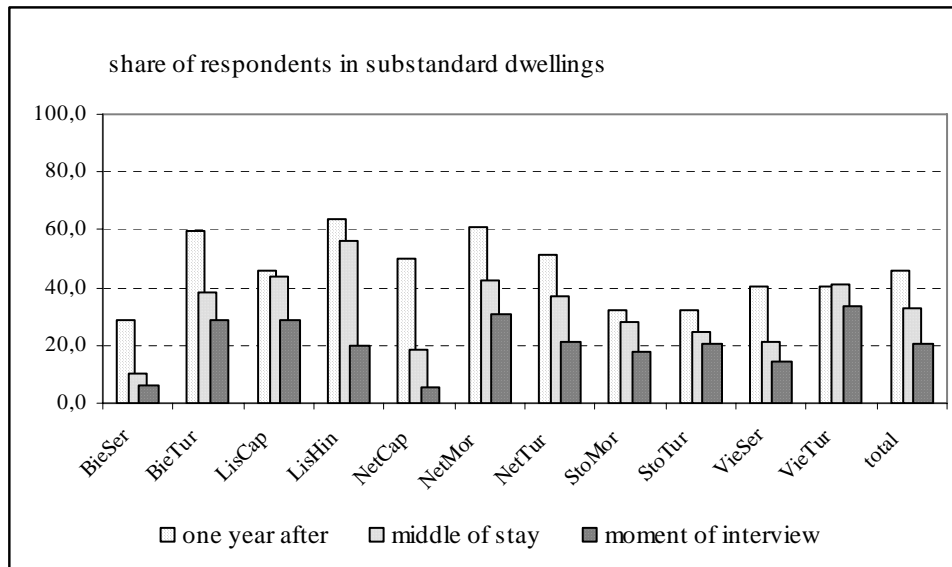
Apart from the increasing occupancy ratio also the share of households living in a dwelling with two or more rooms less than household members decreased noticeable (see figure 27). For all respondents the share declined from 35% one year after arrival to 20% at the moment of the interview. While the tendency over time is the same for all cities, the level of dwellings with 2 and more persons as rooms varies by cities and groups.

Evidently the first generation migrants better their housing conditions in terms of occupancy over time. The analysis of the ratio as well as of the difference of the number of persons and number of rooms indicates that many households reside in less crowded dwellings at the moment of the interview compared with the dwelling they lived in one year after the arrival. Whereas the decreasing share of respondents in highly crowded dwellings with 2 or more persons than rooms can be caused by the decreasing number of household members in most the samples. Indeed, the simultaneously increasing average number of rooms indicates definitely that many households tried systematically to move into a less congested housing situation.

Changes in substandard dwellings over time

The previous analyses point out that many respondents resided and reside till today in problematic housing conditions, be it because of the low standard of the type of dwelling be it because of the crowded living conditions in the dwelling. In the following, both criteria for precarious living conditions were combined into one variable. This allows us to analyse, if the share of respondents living in a substandard dwelling changes over time. Provisional dwellings and dwellings with two or more rooms less than household members at moving in were defined as substandard dwellings.

Figure 28: Changes in the share of respondents in substandard dwellings* over time



Limits, EU sample 2006, data edition as of 15 Feb 06....

* substandard dwelling = provisional dwellings or dwellings with 2+ persons more than rooms

Figure 28 indicates that one year after arrival nearly 50 % of the respondents lived in a provisional dwelling or in crowded living conditions. The share of affected households was very high especially in the case of Turks in Bielefeld, of the Hindus in Lisbon and of the Cape Verdians, Morrocans and Turks in Netherlands. Over the years the situation improved considerably. Only 20 % of the respondents moved into a substandard dwelling at their last relocation and in no group the share exceeds 35 %. Bad living conditions at moving into the dwelling of the moment of the interview cumulate particularly among the Turks in Bielefeld, Cape Verdians in Lisbon, Morrocans in Amsterdam and Turks in Vienna.

The general tendency as to living in a substandard dwelling is the same in all groups, namely a declining share of respondents. In some groups the progress proceeded exceptionally. In the case of the Serbs and Turks in Bielefeld, the Hindus in Lisbon, the Cape Verdians in Rotterdam, the Turks in Amsterdam and the Serbs in Vienna the share of respondents living in problematic housing conditions fell by 50 % or even more from one year after arrival in the receiving country till moving into the dwelling at the moment of the interview. The case of the Cape Verdians in Rotterdam is a conspicuous example, one year after arrival half of the households lived in a substandard dwelling, whereas only 6 % of the contemporary dwellings of the Rotterdam respondents falls into this category. Belonging initially to the samples with a high share of respondents in problematic conditions, at the moment of the interview they turned out to be the group with the lowest share of poor dwelling conditions.

The results about the share of respondents in substandard dwelling provide no clear verification of the first hypothesis that the housing situation is more distinctly influenced by local standards as by the country of origin. This relates to the ambivalent variable “moving into a dwelling with 2 or more rooms less then household members”, which is one of two criteria for defining the variable “problematic housing conditions”. On the one hand the included occupancy variable is a good indicator for measuring the quality of housing; on the other hand the probability to reside in crowded living conditions is not uniformly distributed but higher for large-sized households. This blur prevents us to decide if differences in the distribution result from different living conditions or different household sizes. However, the bivariate analysis of the course over time admits a clear conclusion as to the second

hypothesis: that the housing conditions of the first generation migrants improve over time. The results confirm articulately this assumption, as the share of respondents in substandard dwelling dropped noticeable in all cities and groups.

Summary and Conclusions

Some general results could be detected from the different analyses of the conditions of housing and of the changes over time as to the two characteristics “kind of dwelling” and “occupancy of the dwellings”.

1. The type of the dwelling is noticeably influenced by the local housing conditions. Whereas the distributions between the different samples in the same city are quite similar, the distributions of the different cities vary noticeable.
2. The most frequent type of dwelling the respondents lived in at the moment of the interview is a rented flat or house. In all cities except for Lisbon the majority of the households lived in such a dwelling.
3. The first generation migrants apparently established themselves in the dwelling they lived in at the moment of the interview. The average duration of stay in this dwelling amounts to considerable 11.7 years.
4. The status of the dwelling improved definitely over time in all groups and cities. The share of provisional dwellings declined and in contrast the share of owned flats or houses rose.
5. The ratio of the number of rooms and the number of persons the respondents lived in at the moment of the interview is widely balanced. The averaged value amounts to 1.1.
6. Despite the balanced occupancy ratio, 20 % of the respondents moved at their last relocation into a dwelling with 2 or more rooms less than household members. High shares of respondents residing in crowded conditions are to be observed especially in groups with a high average number of household members.
7. The number of rooms of the present dwelling is influenced mainly by the number of household members at moving in but also by the economic situation of the household and by the city. This confirms the assumption that the local context influences noticeably the individual housing situation of the migrants and negates the existence of ethnic preferences towards housing.
8. In general the average number of household members in the samples decreased over the years, whereas the average number of rooms increased. Correspondingly the occupancy ratio rose as well.
9. The share of respondents moving into a dwelling with 2 or more rooms less as household members declined noticeably over the years.
10. The share of respondents living in precarious housing conditions, be it because of the low standard of the type of dwelling, be it because of the crowded living conditions declined as well noticeably over the years.

Lastly it can be concluded that both hypotheses are confirmed by the results. The individual housing situation of the respondents in terms of the type and the occupancy of the dwelling is more distinctly influenced by standards of the receiving country and the local housing conditions in the respective city than by the country of origin of the respondent. Furthermore the housing conditions of our respondents, who are first generation migrants, have noticeable bettered over time in all cities and groups.

Apart from these results the analyses revealed a methodological problem as to the established procedure to measure the occupancy in the dwelling. The distribution of the ratio as well as of the difference of the number of persons and number of rooms is strongly influenced by the number of persons. The probability of a low ratio or of a high share of

respondents living in dwellings with less rooms than persons is higher for groups with sized households. This is on the one hand a methodological problem because e.g. the ratio of households with one person can not give a value of less than 1.0. On the other hand this is also a problem with regard to interpreting the quality of life. In general a missing room can be more easily compensated by a large household than by a small household. Further analysis has to solve this problem, for example by calculating a ratio based on a weighted number of persons as it is done in the calculation of the equivalent income of households.

3.5 Social Integration

Introduction

This report describes and analyses the social integration of first generation migrants in European cities. Social integration is here conceived of as interaction between migrants and persons of the autochthonous population. Two main questions will be answered:

- (1) How does the integration change as migrants sojourn in the receiving country lasts longer?

This will be a descriptive endeavour and only a first attempt to grasp the development in the cities and groups under study. Part 3 addresses this matter.

- (2) Which factors affect the level of social integration?

Here, it is assumed that first of all social integration increases with time spent in the receiving country. Besides, younger persons are expected to display more traits of social integration as they have spent the greater part of their life in the country of destination. (Remember that only first generation migrants born abroad are under study.) Then, attending institutions of education in the destination country provides an important opportunity to make friends and learn things relevant to social intercourse with locals, so that those having followed education in the country of residence can be hypothesized to show higher measures of social integration. This factor is, of course, also related to the mastery of the local language. However, since language acquisition is not solely dependent on formal education, we expect an effect of its own. Next, one of the most important opportunity structures for migrants arrived at adult age is the labour market. We expect the length of the period of active participation in the labour market (as opposed to non-participation as in the case of housekeepers etc.) to have a positive effect on social integration. The opposite may be the case for the effect of competing opportunity structures such as family members living in the same household. He who has spouse and children or other relatives to look after is less likely to meet outsiders, be they co-migrants or, which is the effect of relevance here, the autochthonous. Thus, migrants in single person households might feel a stronger inclination to interact with locals. Given these considerations, no sex effect is likely in a model controlling for the aforementioned variables. Last, a difference is expected between those legally naturalized and foreigners. Beyond indubitable barriers to the access to the receiving society's citizenship, naturalization might be considered an indicator of identification with the receiving society. Foreigners are more likely to prefer co-migrants in their day-to-day interaction, whereas the naturalized might mix more easily with locals.

It is sometimes assumed that intra-ethnic opportunities for social action pose a problem to migrants' societal integration as they lower the incentives of dealings with the autochthonous population. The background to this is the implicit idea of social integration being a zero sum

phenomenon with a limited total capability of individuals to maintain social relationships. The part of the total capacity occupied by intra-ethnic intercourse is assumed to be unavailable for integration-related activities related to the indigenous society. If a migrant thus has many friends of the same country of origin, he is assumed to have few indigenous friends. Further, it is believed that opportunities for social intercourse both in terms of informal dealings and formal institutionalized offerings catering for social needs are more willingly accepted if made by social actors a co-migrant background as the access to them is not hampered by language and cultural barriers. We shall therefore include the complements of the social integration variables relating to the receiving society into our considerations, viz. those aspects of social integration into the migrant community within the receiving society. Thus we can test whether a competition between the two directions of social integration exists. In part 4.3 we perform a regression analysis on this subject.

Methods

Data Base

In a number of thematic fields such as jobs, dwelling, and social integration, the same questions were put to the respondents relating to three different points in time: (a) one year after the first arrival in the receiving country, (b) the year representing the middle of the stay in the receiving country, and (c) the time of the interview, which is 2004 in all but one city. Thus, with six cities and two (Rotterdam: one) groups per city, 11 groups are under study with a total N of 3300, and a total of $3 \times 3300 = 9900$ observations of the thematic sets is available. Due to individual missing values and the omission of certain items in some countries, less observations can be processed in the case of some variables. The descriptive analysis uses the entire pool of measurements.

The regression analysis focuses on the second point of measurement: the middle of stay. As we needed to choose one point of measurement for this part of the analysis, the middle of stay is the most logical candidate. If e.g. a person arrived in Portugal in 1980, the questions relate to the year 1992. Selecting the first point of measurement (one year after arrival) makes less sense as migrants then had too little time to adapt to the social environment, while in the third period, many are pensioners and have withdrawn from some fields of social interaction such as the labour market.

Operationalization

Social integration was operationalized in terms of the following categories:

- (a) the character of a person's informal personal network, in particular the number of close friends of distinct categories defined by geographic origin and kinship ties,
- (b) the frequency of personal communication with persons falling into these social categories and
- (c) the attendance of associations, organisations, and less formal collective institutions, differentiated by the constituting societal body, viz. migrant organisations or networks vs. native organisations or networks.

The following wordings were used:

(a) Character of ego's personal network:

S04: What is the number of your close friends being part of your family or coming from your place of birth?

S05: Apart from these, what is the number of your close friends from your country of birth?

S07: Apart from these, what is the number of your [country of reception] close friends?

Answers were (1) none, (2) 1-2, (3) 3-4 and (4) more than 4.

(b) Frequency of personal communication:

S11: How often do/did you speak with family members or people from your place of birth?

S12: How often do/did you speak with other people from your country of birth?

S14: How often do/did you speak with [people from the country of reception]?

Answers were (1) daily, (2) at least once a week, (3) at least once a month and (4) less frequently (than once a month) or never.

(c) Frequency of attendance

S17: How often do/did you attend institutions or meetings or events of associations/clubs etc. frequented by [persons of country of origin]?

S18: "How often do/did you attend institutions or meetings or events of associations/clubs etc. frequented by [people from the country of reception]?"

Answers were (1) daily, (2) at least once a week, (3) at least once a month, (4) less frequently (than once a month) and (5) never.

For the sake of clearer presentation, the values of the social integration frequency variables were recoded in a way that now higher values represent more frequent interaction. One might or might not argue that the variables are metric. At face value, the labels seem to contradict the demand of equal distances between categories. However, one might assume that from a point of view of social perception, the increase of what is meant by social integration is less if a person has 5 instead of 4 friends than if he had one friend instead of no friends. The relative increase in what is meant by social integration might be captured even better by the scale implemented here than by an ordinary count. Based on such considerations, the coded values of social integration variables (viz. 1-4 and 1-5 respectively) will be used in statistical procedures designed for metric variables.

Apart from this, questions on socio-demography and migration history were asked:

- Single person household

In the dwelling questionnaire, one question relates to the household composition of the respondent:

"Who are the people who lived with you at the time of move-in?"

One option was to tick "No further persons, I was living alone."

Only this dichotomy was used.

- Naturalization

"Do you hold a [receiving country] passport?"

If so, since when?"

Naturalization was taken into account for analysis if it had occurred by the year of the second measurement.

- Language capacity

Unlike the time pattern in other thematic fields, questions relating to language mastery were not put relating to half the duration of stay, but to the time five years after arrival. For many subjects, this quite matches the point of measurement of dwelling and activity measurement at half time. However in some cases the language data are outdated, as the other second points of measurement are dated some years later. Yet, language data pertaining to the five-year point were included in the analysis as the level of language command can be assumed to hardly changes after the first years in another country. Also, the main interest would be in active command of the local language. However, here only data on passive knowledge are available:

"How well did you understand [language of receiving country] five years after your (first) arrival in [receiving country]?"

Values are: 5=very well, 4=fairly well, 3=I can manage, 2=with difficulty, 1=not at all.

- Number of job years

As a measure of labour market participation, the total number of years up to the second point of measurement spent in employment was calculated. For this purpose, data in the activity table were aggregated over the year of immigration or the beginning of activity records, respectively. In that table, one observation exists for each activity spell, which may last from one to an indefinite number of years. The following activity states were used for employment and related activities: Full time employed, part time employed, casual work, self-employed with or without employees, military/voluntary social service and education/training. All other employment states were disregarded for the present purpose: looking for paid work, maternal leave, family care/house keeping, retired, unable to work due to illness, without occupation/out of labour force, frequently changing acquisition status.

- School attendance in receiving country

In the language and education table, one question is

"Have you attended a school or evening school or undergone vocational training in [receiving country]?"

The answer "yes" was counted.

Data Plotting Procedure

The descriptive part of the analysis below displays the development of social integration over time. Plotting variations of our data is not easy as the measurement resulted in a four-item-scale, the simple plotting of which would produce parallel lines with invisible variations in thickness in which practically all possible $x*y$ combinations exist. Regression-based methods to display regularities are hardly suitable for an exploratory glimpse at the data structures as they suppose mathematical, i.e. systematic models of change, whereas no such models can as yet be brought forward. Instead, a non-theoretic interpolation method developed by Reinsch (1967) and implemented in SAS was used. It minimizes a linear combination of the sum of squares of the residuals of fit and the integral of the square of the second derivative. The functioning may be roughly figured as follows: Instead of literally connecting individual points in the social integration by time chart by a series of connected straight lines (the procedure one would suggest for just a few values), the procedure smoothes the line into a curve. For this purpose it may be imagined to stretch a strong rubber tape across the chart horizontally. Each measurement point then has another, very thin rubber tape vertically tied to it and to the main tape and tries to pull it up or down, respectively. Then, in total e.g. many high measurements at a certain duration would cause an upward dent in the main tape towards them.

To get a general idea of the time periods covered by the data, we have plotted distributions of the points of measurement for social integration data (cf. Figures 29 and 30). They are equivalent to the points of measurement of activities and dwelling (long forms). Figure 29 shows how the first measurement dates far back in time with the first arrivals lying before 1960. The second points cumulate between 1985 and 1995 while the third points are always 2004 with the exception of Rotterdam where interviews took place in 2005. The Distribution is seen clearer in Figure 30 where only the first and second points were plotted.

Figure 29:

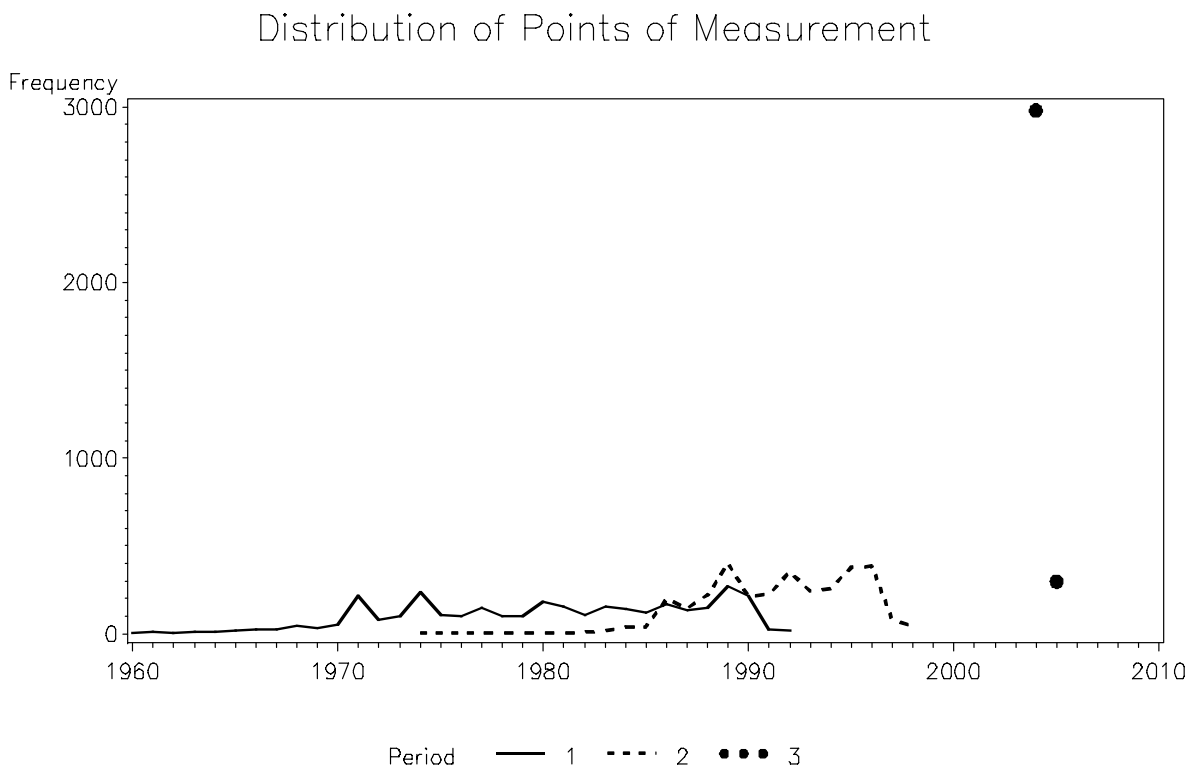
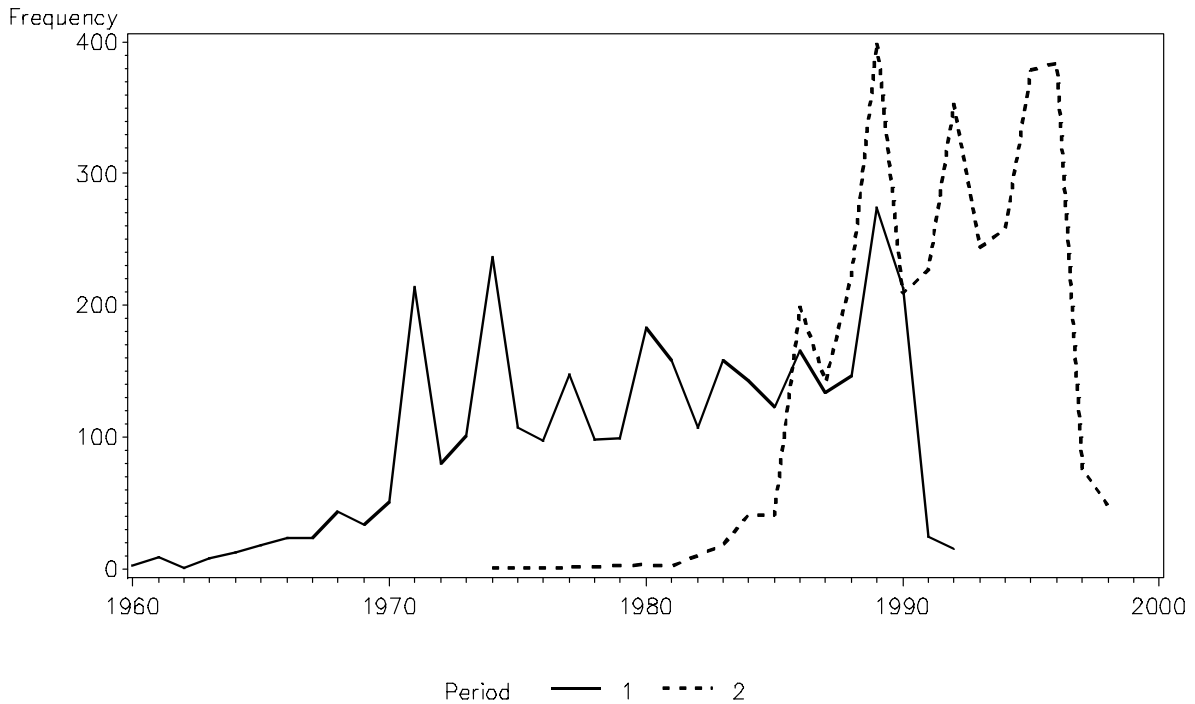


Figure 30:

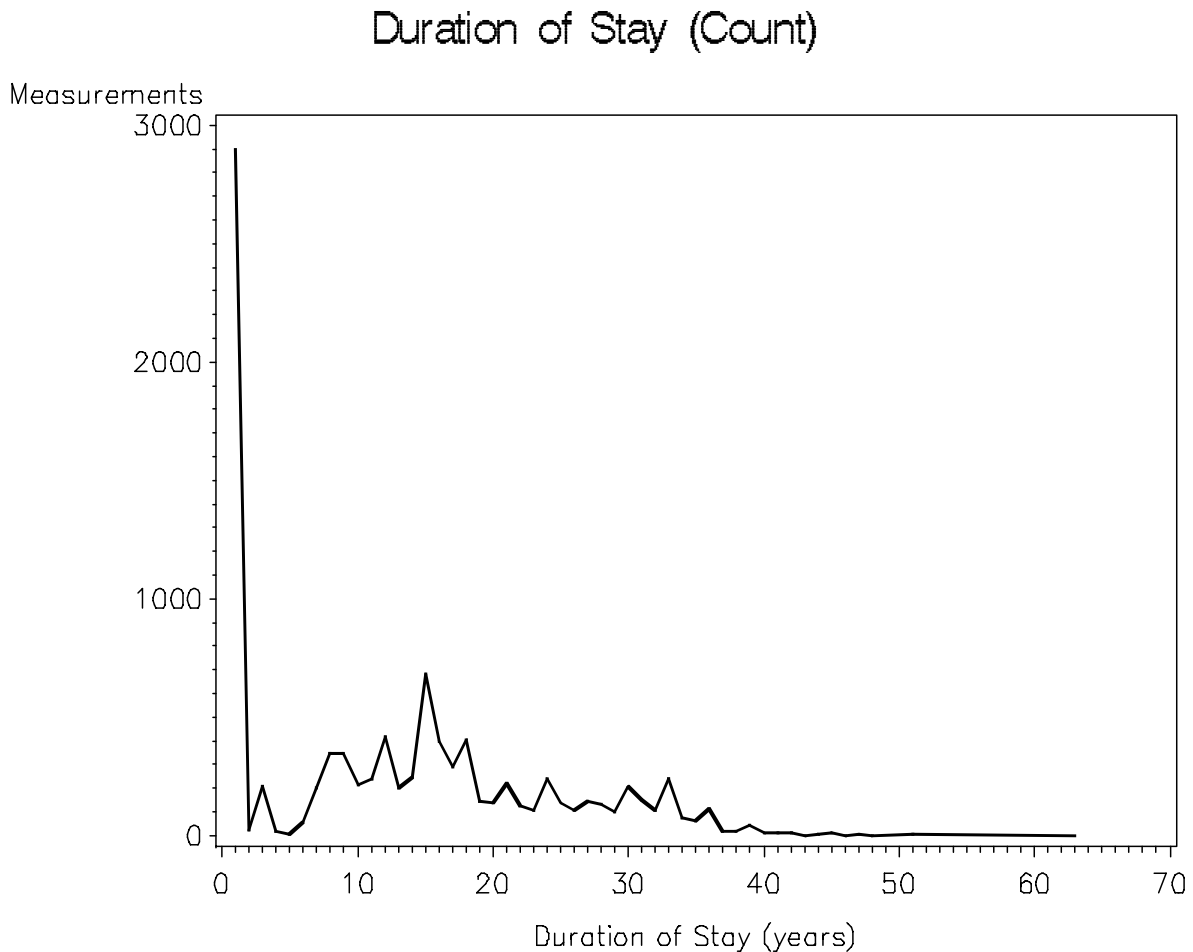
Distribution of First and Second Points of Measurement



Distribution of durations of stay

Changes in social integration variables will be plotted against duration of stay which is simply the time difference in years between first arrival and the respective point of measurement. No adjustment was made for interstitial spells abroad. For descriptive purposes all social integration data will be pooled, i.e. three observations enter for each person in every dimension. Figure 31 shows the distribution for all group samples and measurement periods combined. The maximum count occurs at one year, as every case was to be asked at that point. A further (local) maximum is around 15 years, the minimum required duration of stay for all subjects. The chart indicates a total duration of stay of over 60 years for some subjects. Generally, tabulations and charts are less reliable beyond a duration of more than 35 years as case numbers decrease markedly. Therefore, in the next charts, no values will be plotted for durations over 40 years. (Mean durations broken down by city, group and sex are to be found below, in the paragraph 'Cross-Sectional Variations of Social Integration').

Figure 31:



The Dynamics of Social Integration

In this chapter we shall display the development over the duration of stay of the key social integration variables of the number of autochthonous friends, the frequency of interaction with natives and the attendance of native associations. Preliminary explorations have shown that the samples are quite heterogeneous in terms of levels and developments of social integration so that no common plotting is appropriate. The following charts are grouped by cities; each chart contains the curves for the two migrant groups in the city, except for the Netherlands, in which case we have presented the three groups for Amsterdam and Rotterdam together. The x-axis holds the duration of stay in years, the y-axis replicates the scale by which the social integration variables were measured.

Bielefeld: Overall, there is a marked increase in interethnic interaction in the first years up to around 12 years. The pattern then is irregular, but grossly, the high level is maintained up to a duration of at least 25 years. Thereafter, a decrease occurs, but levels never fall lower than in the initial stage of sojourn. This pattern, that will be seen in almost all following charts, may have to do with elder migrants retiring from their job after some 30 years and thus retreat from fields of interethnic interaction. On all three measures, Turks display lower social integration levels than Serbs, the contrast being sharpest in the frequency of informal interethnic communication (cf. Figures 32, 33 and 34).

Figure 32: Number of Friends of Indigenous Origin by Duration of Stay: Bielefeld

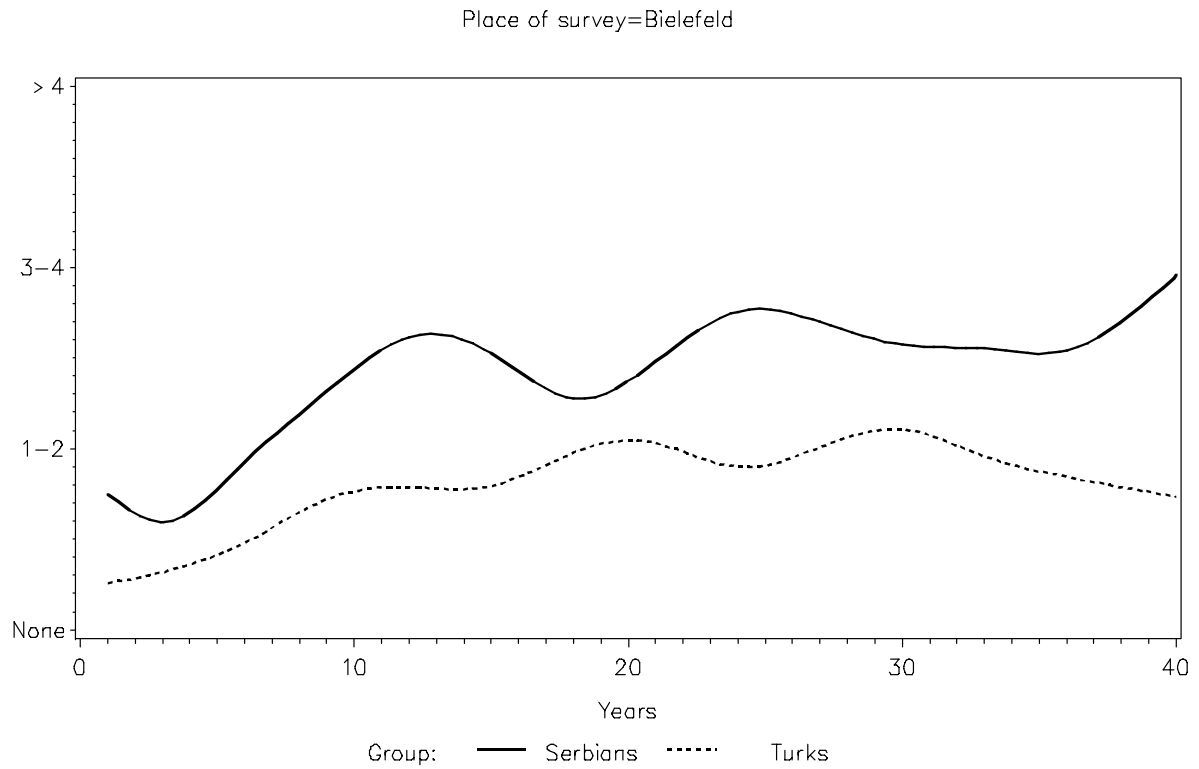


Figure 33: Frequency of Talks With Persons of Indigenous Origin by Duration of Stay: Bielefeld

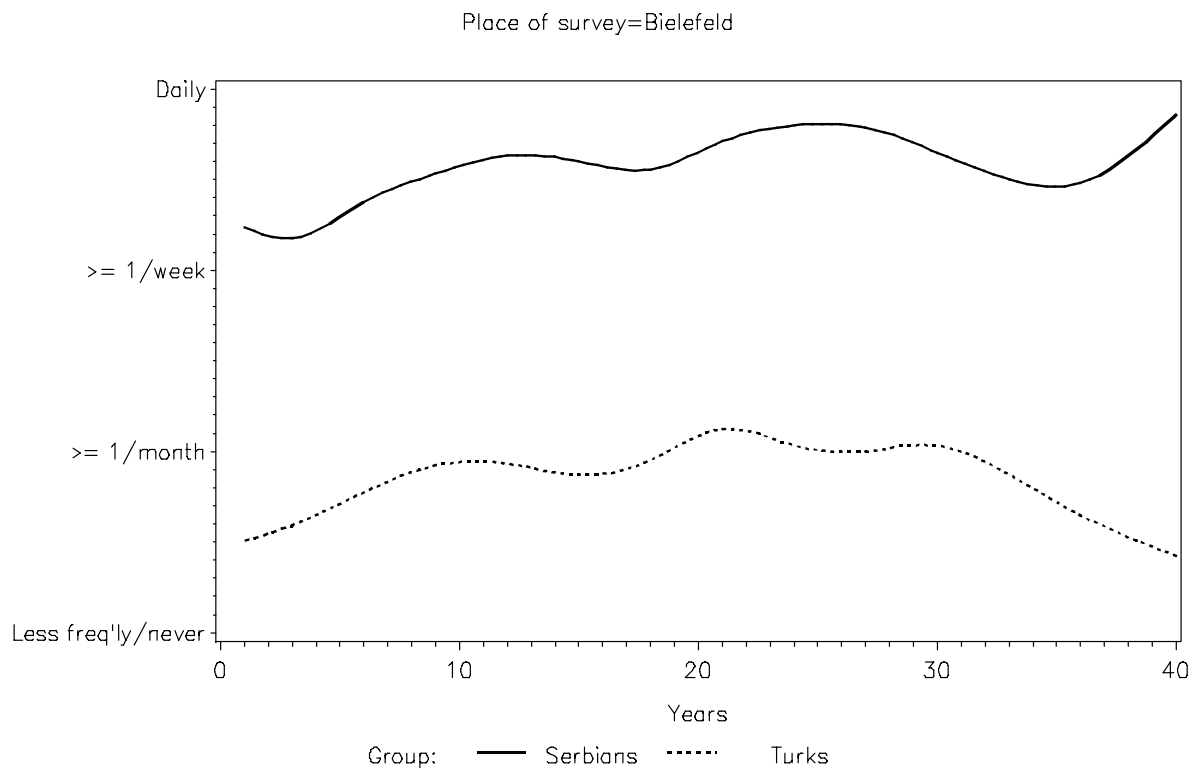
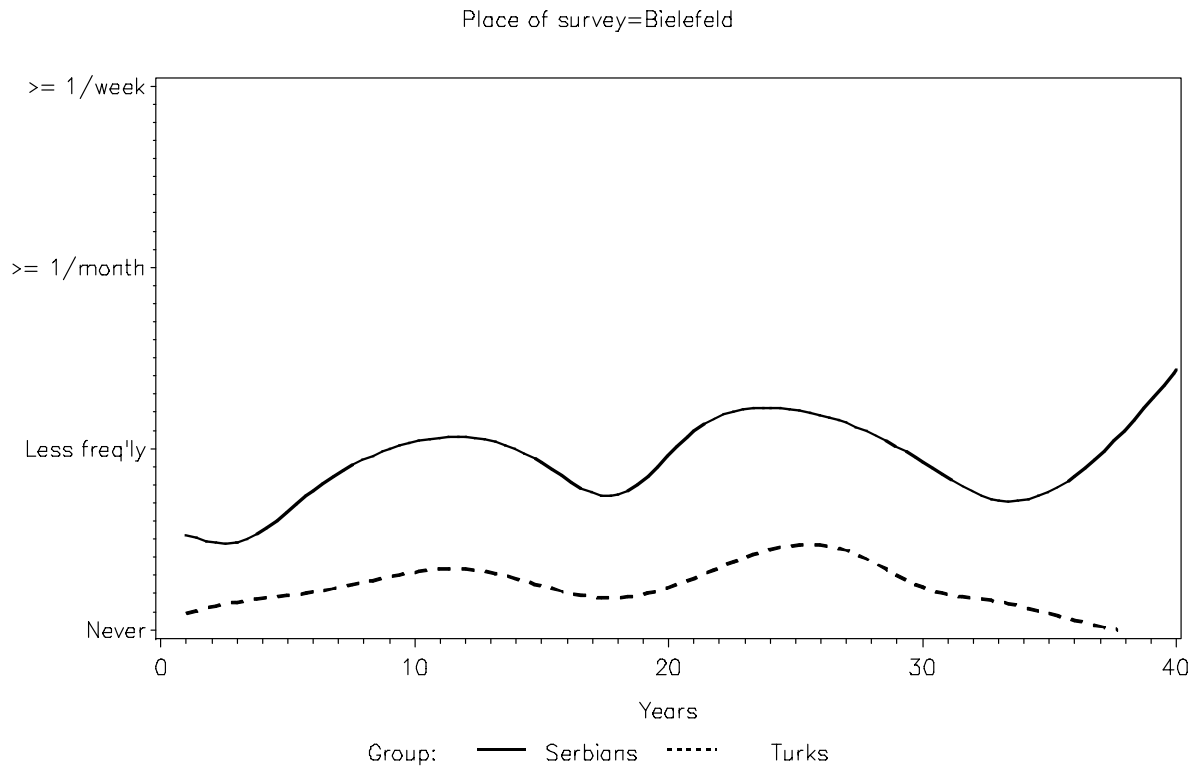


Figure 34: Number of Visits to Indigenous Organizations by Duration of Stay: Bielefeld



Vienna: The initial increase is more pointed than in Bielefeld, but the general pattern is similar. Social integration levels are stable over time. Differences between Turks and Serbs are less clear, which means that Serbs in Vienna have less communication with Austrians and visit Austrian associations less frequently (Figures 35, 36 and 37).

Figure 35: Number of Friends of Indigenous Origin by Duration of Stay: Vienna

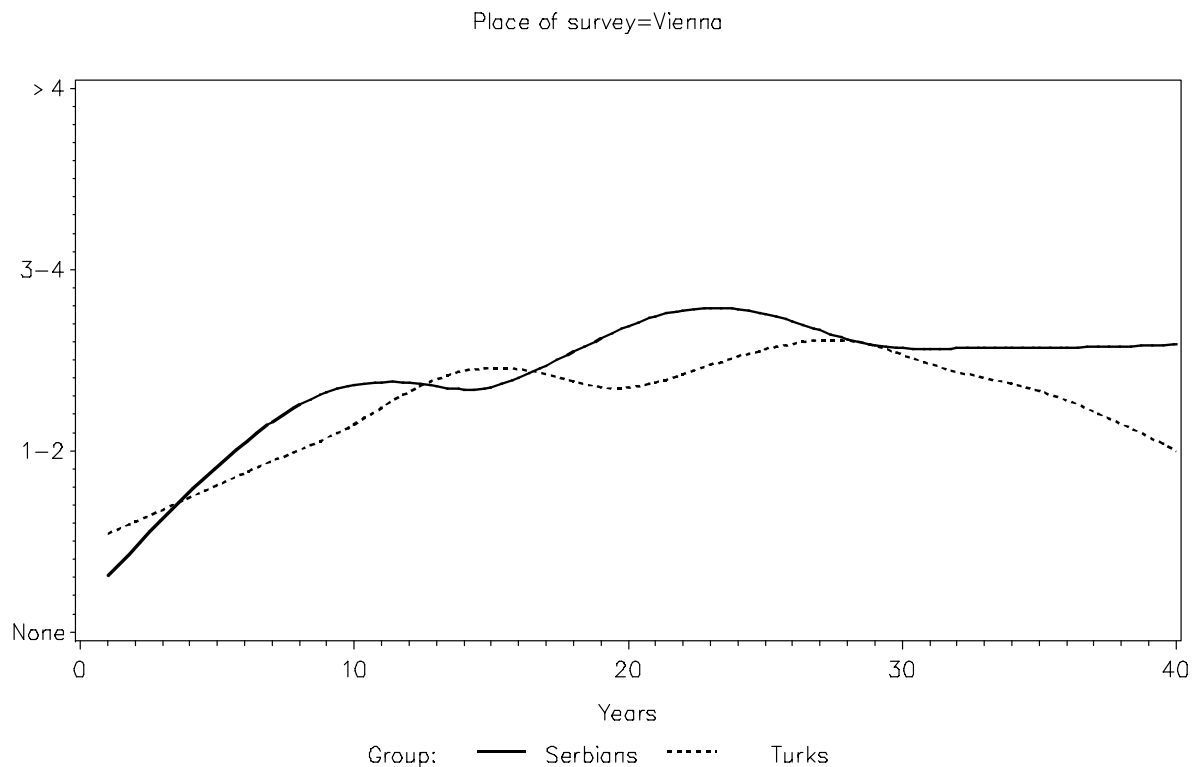


Figure 36: Frequency of Talks With Persons of Indigenous Origin by Duration of Stay: Vienna

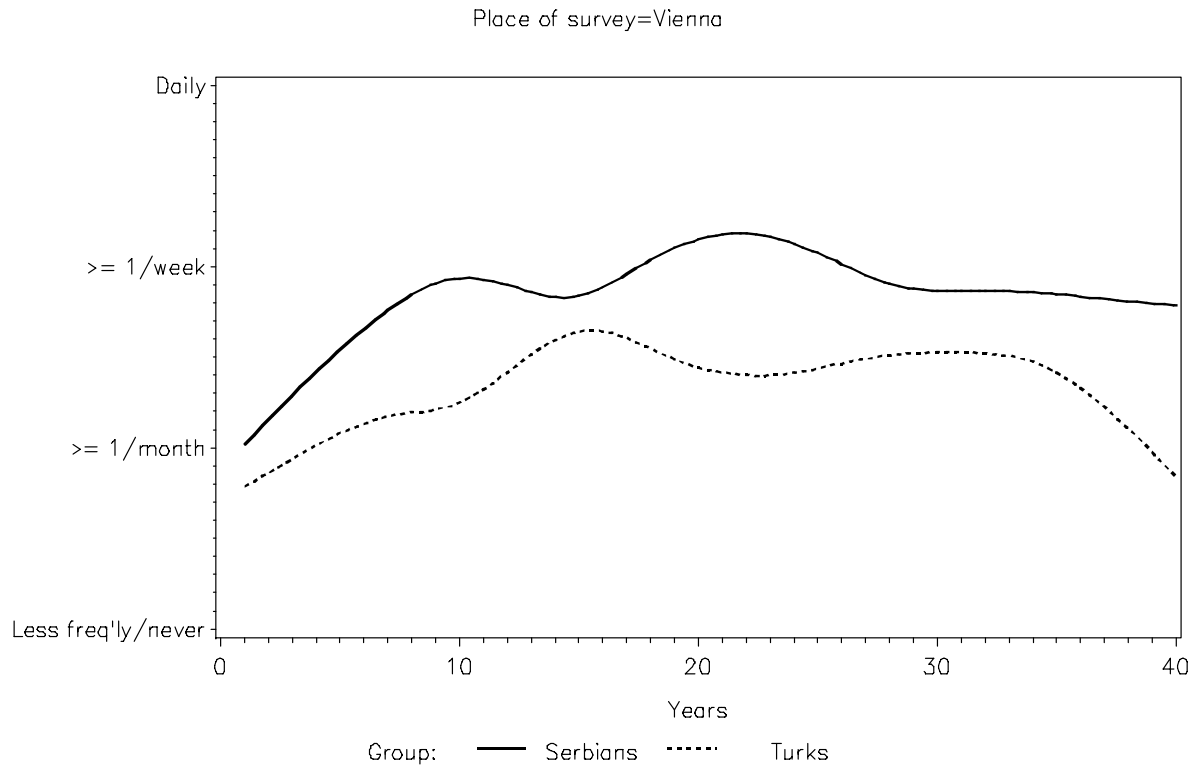
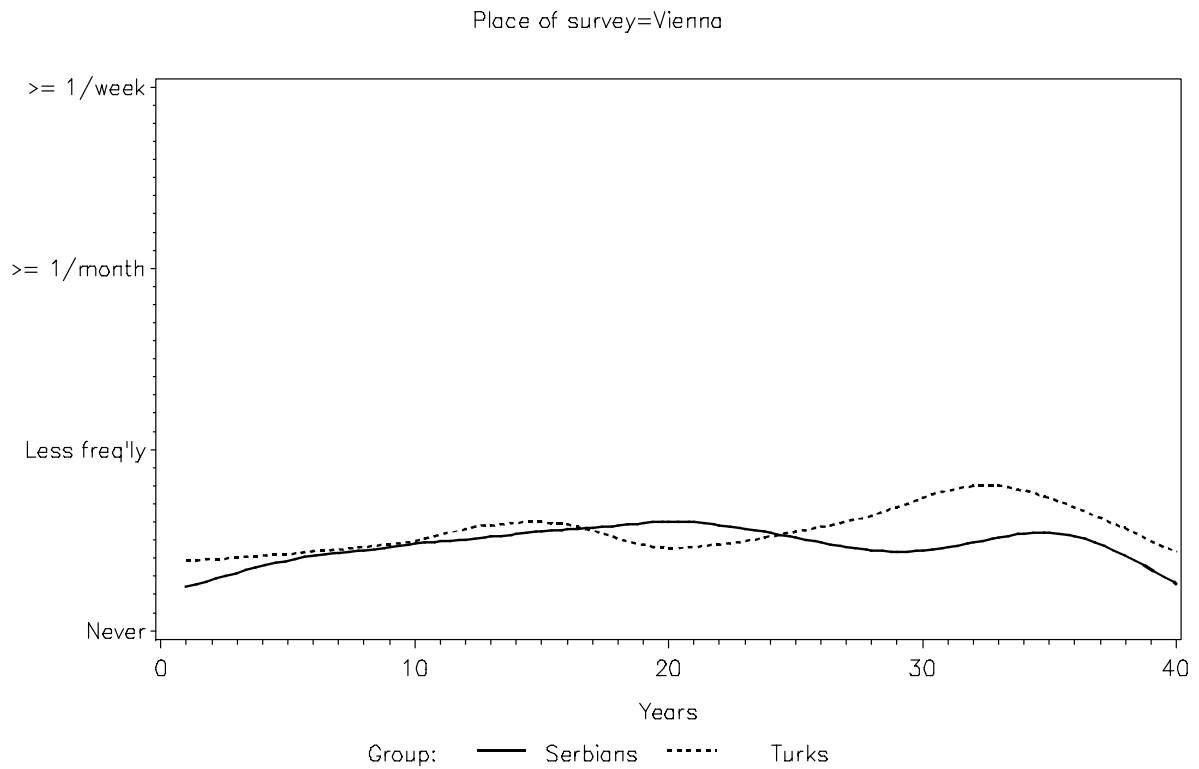


Figure 37: Number of Visits to Indigenous Organizations by Duration of Stay: Vienna



Stockholm: For Turks, the increase in number of friends extends over the whole span of durations up to 30 years. Turks in Stockholm have more Swedish friends than Moroccans have. However, differences in other measures are less clear. Attendance of Swedish associations falls early, after a relative high at around a duration of 10 years (Figures 38, 39 and 40).

Figure 38: Number of Friends of Indigenous Origin by Duration of Stay: Stockholm

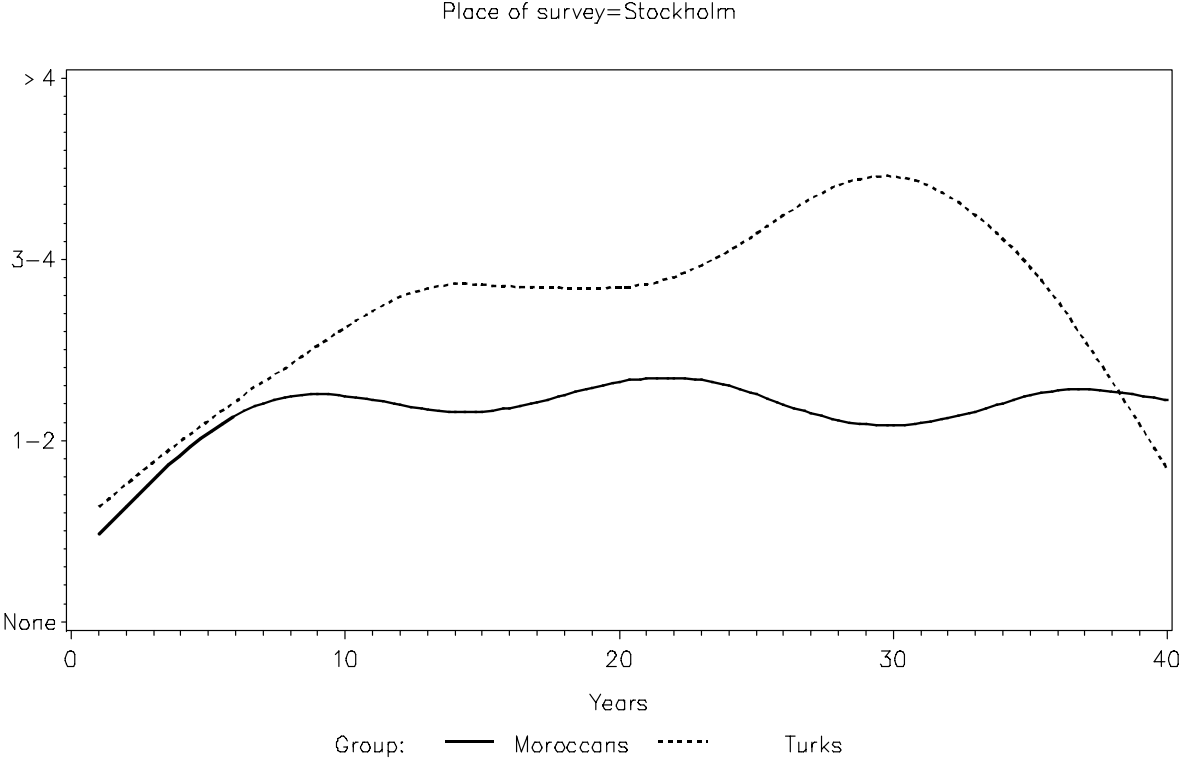


Figure 39: Frequency of Talks With Persons of Indigenous Origin by Duration of Stay: Stockholm

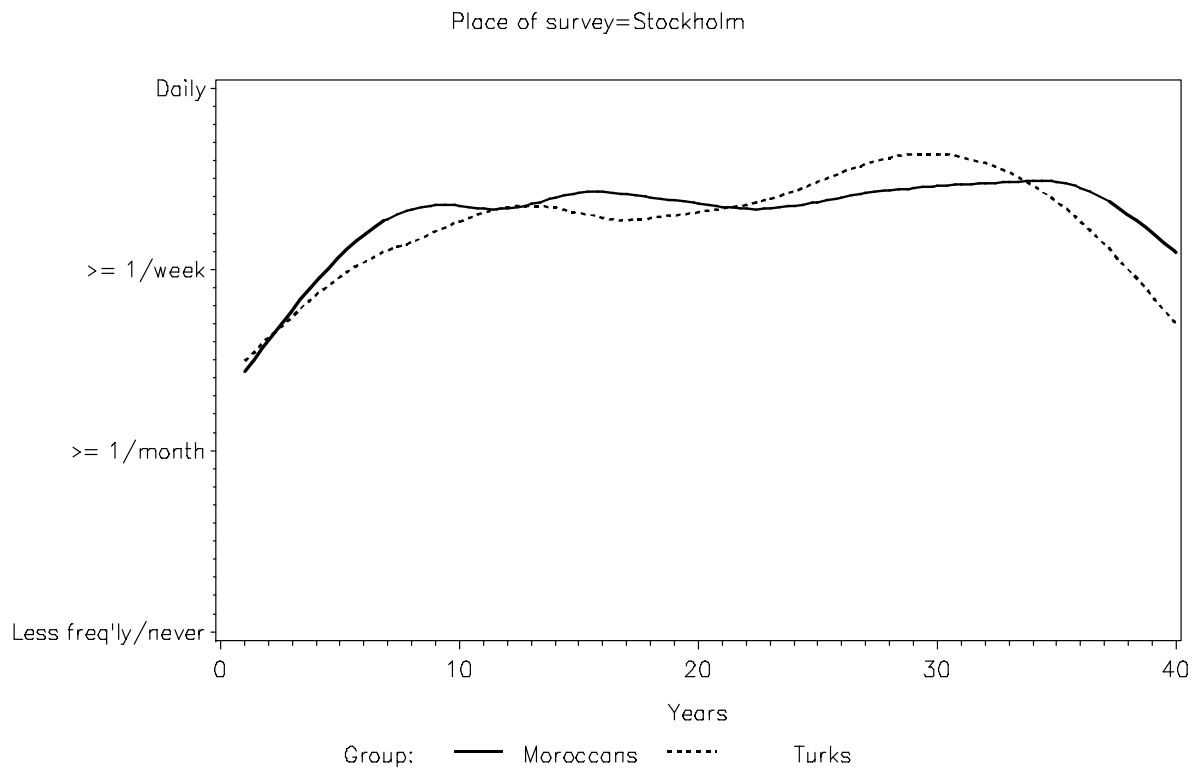
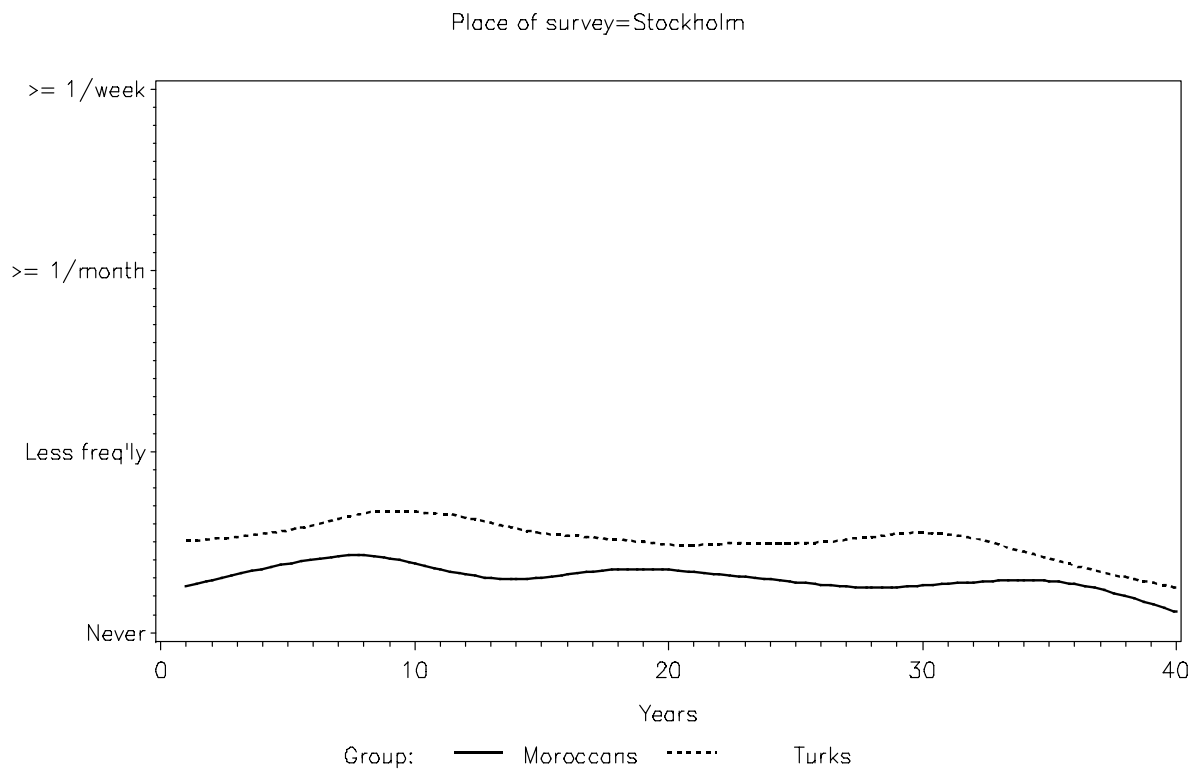


Figure 40: Number of Visits to Indigenous Organizations by Duration of Stay: Stockholm



Lisbon: Both Cape Verdians and Hindus in Lisbon display extremely high levels of informal contact with Portuguese compared to other countries. Especially Hindus stand out in this regard. An slight increase over time is still visible. However, the participation in local associations is as low as in other countries. Interestingly, Hindus acquire a sense for local associations only after 25 years in the country (Figures 41, 42 and 43).

Figure 41: Number of Friends of Indigenous Origin by Duration of Stay: Lisbon

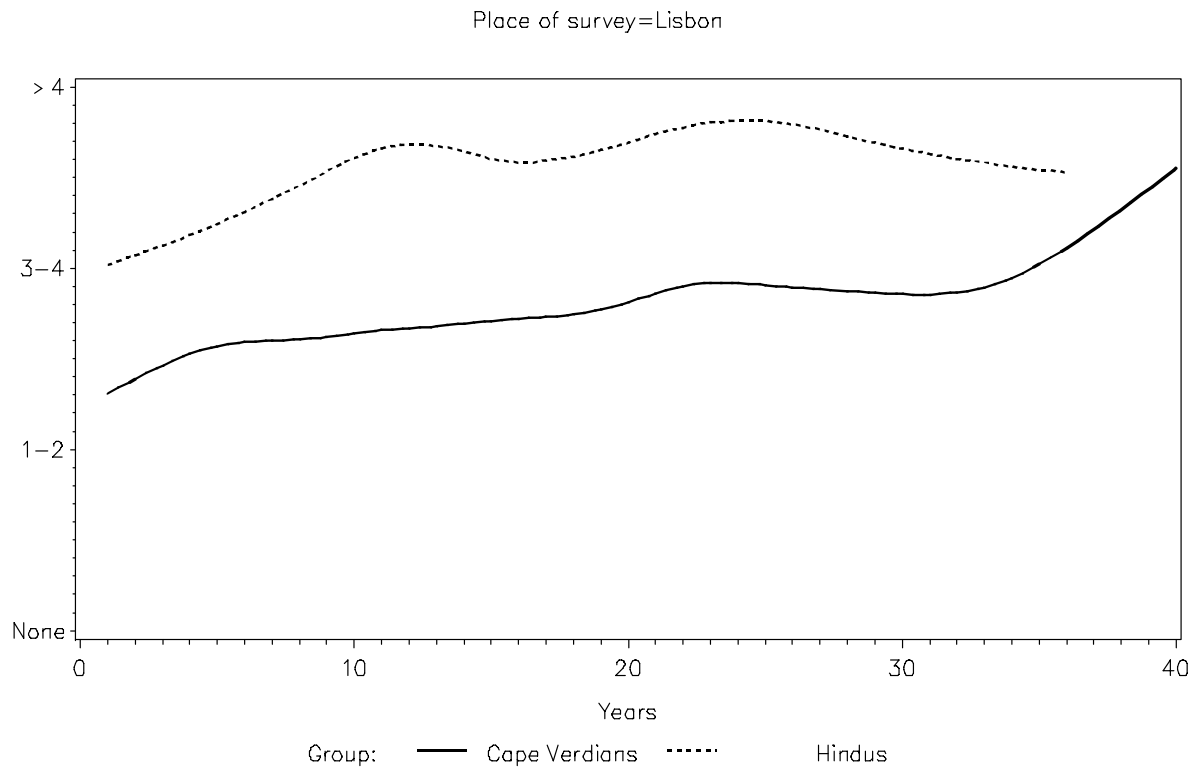


Figure 42: Frequency of Talks With Persons of Indigenous Origin by Duration of Stay: Lisbon

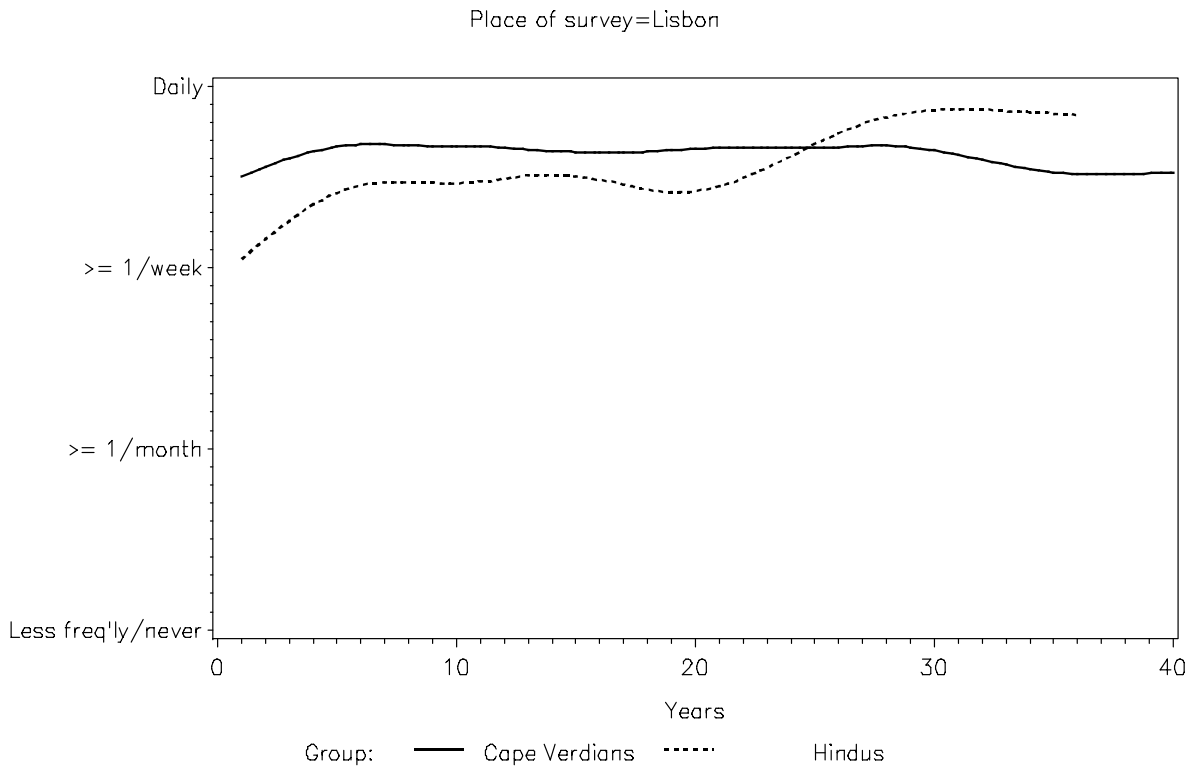
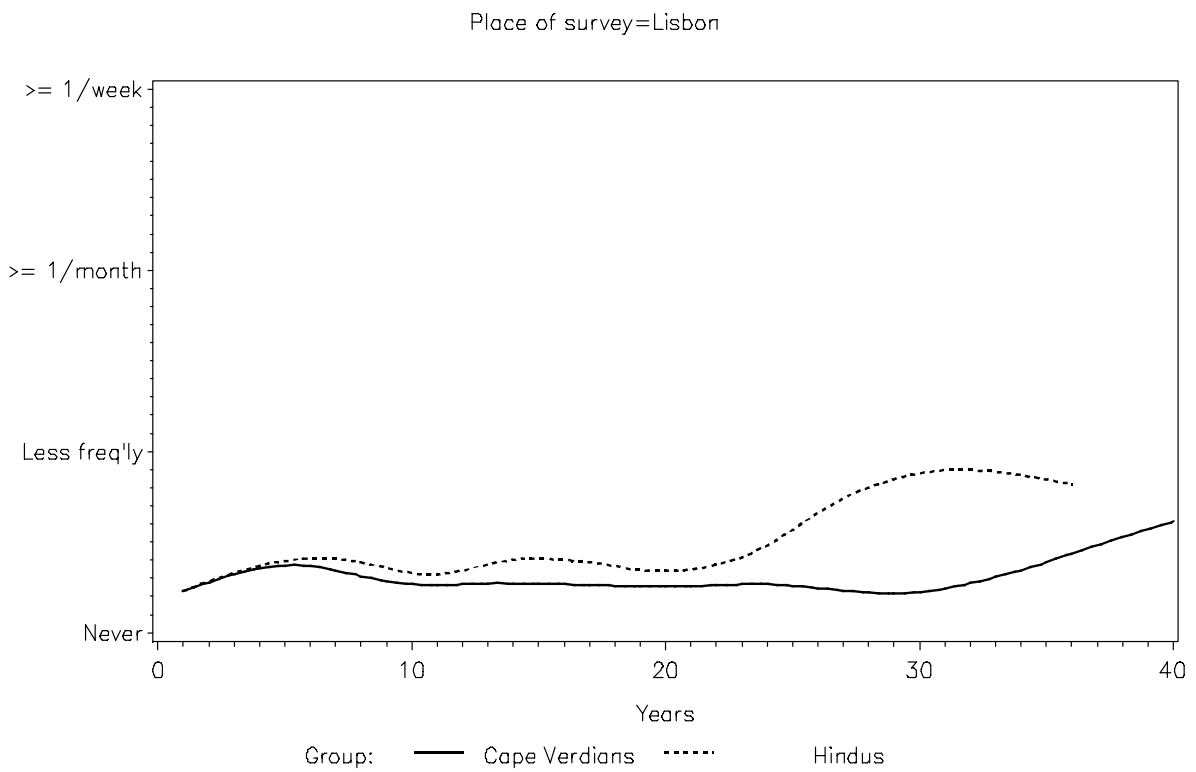


Figure 43: Number of Visits to Indigenous Organizations by Duration of Stay: Lisbon



Netherlands: The three groups in Amsterdam and Rotterdam do not deviate from the pattern observed in other cities. Social integration rises in the first years, then remains constant and falls after a duration of stay of 30 years. Cape Verdians are best situated as their network pattern, interaction and attendance rates are considerably higher than those of Moroccans and Turks. In two out of three measures, Turks take the last position (cf. Figures 44, 45 and 46).

Figure 44: Number of Friends of Indigenous Origin by Duration of Stay: Netherlands

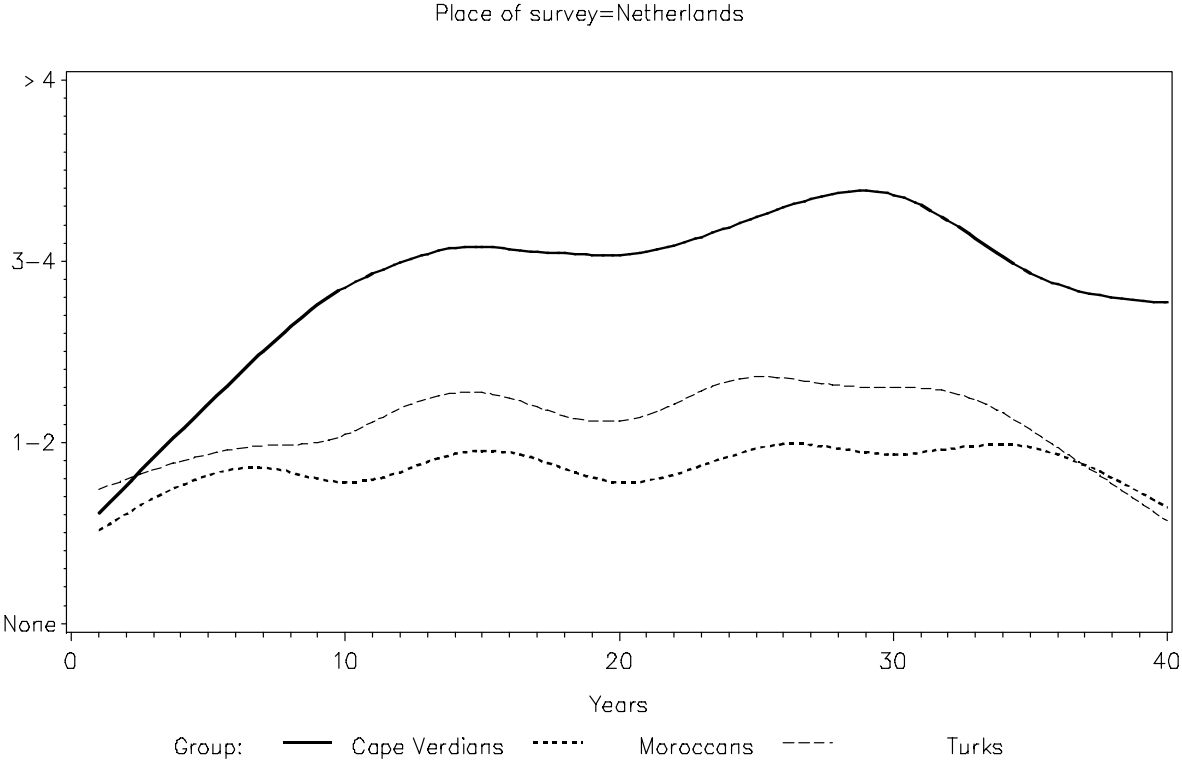


Figure 45: Frequency of Talks With Persons of Indigenous Origin by Duration of Stay: Netherlands

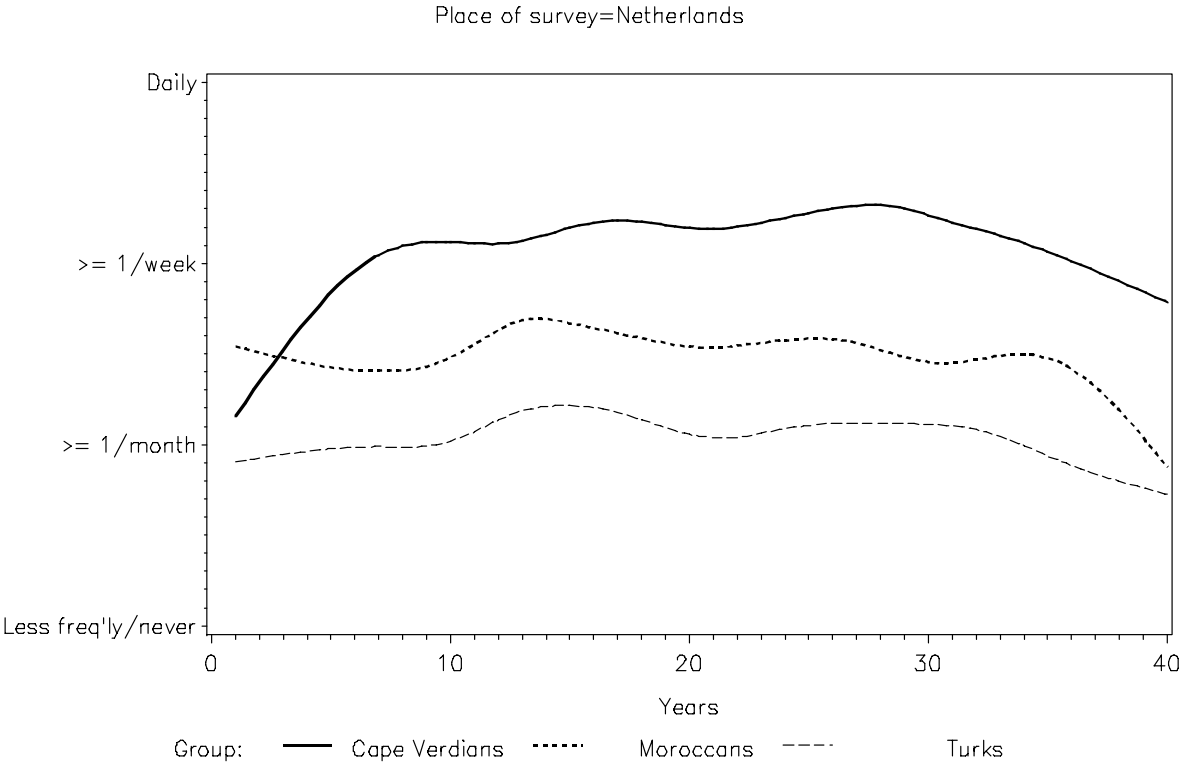
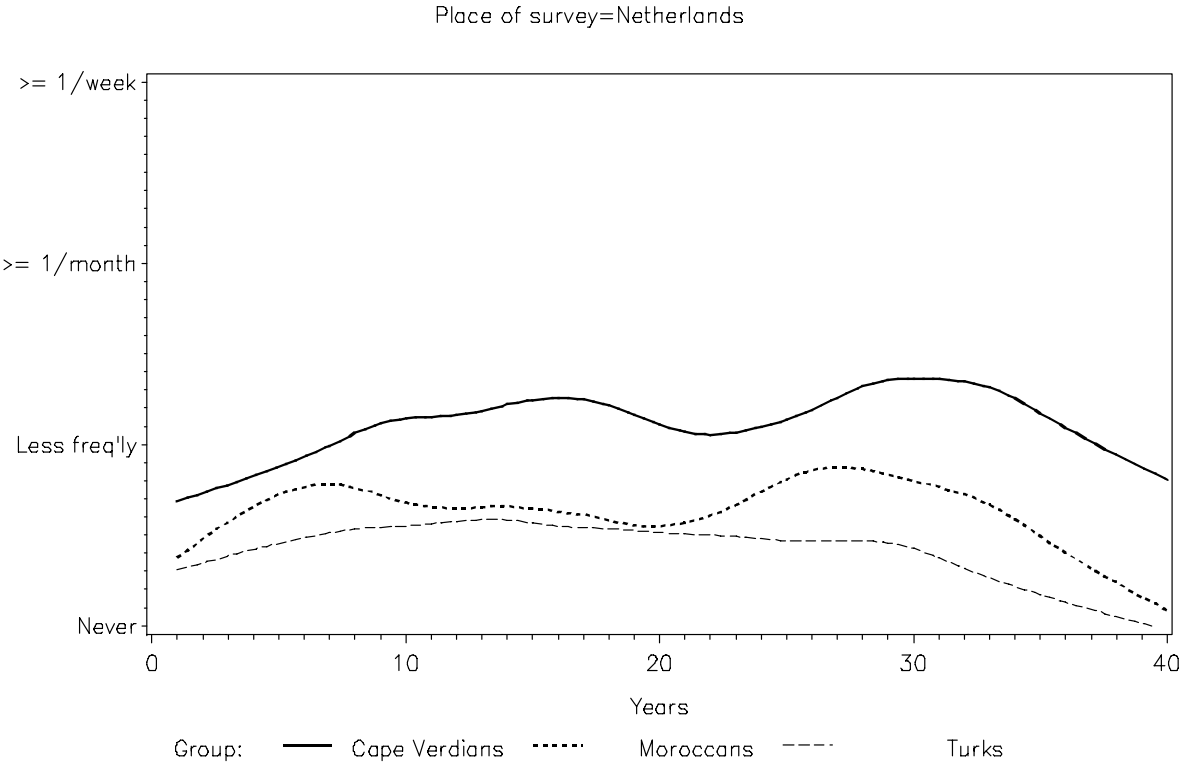


Figure 46: Number of Visits to Indigenous Organizations by Duration of Stay: Netherlands



Cross-Sectional Variations of Social Integration

Variations between Groups, Cities and the Sexes

In this paragraph, we take a closer look at local variations of social integration variables that became visible above. The discussion is based on the second point of measurement only. First, we shall scrutinize levels of social integration variables, not only into the host society but also into the migrant community. Data are displayed in table 21: means of social integration variables by sex, groups and cities. Due to lack of space, the column titles (groups in cities) are abbreviated and consist of the first letters of the city (Amsterdam and Rotterdam have been united into Net=Netherlands) and the first letters of the group names.

Highest numbers of indigenous friends are reported for Hindus in Lisbon. Their mean of 3.7 for male and 3.6 for female respondents approaches the scale maximum of 4.0. Also, Cape Verdians in Lisbon and Rotterdam have more than average numbers of interethnic friends. On the other hand, Turks in Bielefeld but not in the other countries, and Moroccans both in Amsterdam and Stockholm have lowest values. Women in most groups have less friends than men, but Moroccans in Stockholm have more. Means of the scale of number of co-ethnic friends are usually one point higher than the value of indigenous friends, indicating that friends from the country of origin are more important for first generation migrants. Again, women have less friends than men. Friends that are from the own family or the place of origin play a somewhat less important role than other friends from the home country.

Talks with indigenous persons is an almost daily occupation for Serbs in Bielefeld and Cape Verdians in Lisbon; for Cape Verdians in Amsterdam this is true only to a lesser degree. Turks in general and especially in Bielefeld lag far behind (means of around 2.0), but Turks in Stockholm are a notable exception with an above average value of 3.3 for both men and women. Otherwise, women mostly communicate slightly less with natives than men. Generally, talks with co-migrants are more frequent than with natives; the groups who hardly engage in interethnic discourse thus make up for a part of their communication lacks. Family and place of origin persons are spoken to about as often as co-migrants. Women in many groups have more communication with family than with out-of-family persons. Only within one group there is a consistent imbalance of communication at the disadvantage of women over all three measures: in Amsterdam's Moroccans.

Finally, indigenous association attendance is a rare phenomenon in all groups, quite opposed to migrant association attendance. Male Serbs in Bielefeld stand out with the highest rate, while Turkish women in Bielefeld practically never attend either German or Turkish associations. Collective activities outside the household are generally a male affair, and attendance means of the female samples are considerably lower.

To summarize the descriptive findings: The female sub-samples have lower social integration measures concerning the encompassing society but also to the migrant community. Considerable differences exist between groups within one country and between of same origin in different countries. Turks in Bielefeld and elsewhere, but not in Stockholm show weakest social integration indicators, while both Cape Verdian samples and Lisbon's Hindus achieve top rankings. At least at an aggregate level, those high in intra-ethnic integration do not lack integration into their host societies: the positions relative to other sub-samples are positively related.

Table 21: Key Social Integration Variables by Sex, Groups and Cities (Mean Values)

| | | | | | | | | | | | | |
|---------------------|------|------|------|------|------|------|------|------|------|------|------|------|
| N Indigenou s | 2.5, | 1.9, | 2.8, | 3.7, | 3.0, | 2.0, | 2.4, | 2.0, | 2.6, | 2.3, | 2.3, | 2.3, |
| male | 2.3, | 1.7, | 2.6, | 3.6, | 2.9, | 1.6, | 2.0, | 2.3, | 2.5, | 2.3, | 2.3, | 2.3, |
| N Friends | 2.9, | 3.2, | 3.4, | 3.7, | 3.9, | 3.1, | 3.3, | 2.5, | 3.4, | 3.6, | 3.6, | 3.5, |
| female | 2.7, | 2.7, | 3.3, | 3.7, | 3.7, | 2.4, | 3.3, | 2.8, | 3.4, | 3.4, | 3.4, | 3.4, |
| N Friends | 2.6, | 2.8, | 3.2, | 3.5, | 3.9, | 3.2, | 3.1, | 2.2, | 1.6, | 2.9, | 2.9, | 2.9, |
| female | 2.5, | 2.6, | 3.2, | 3.6, | 3.7, | 2.8, | 2.8, | 1.9, | 1.7, | 2.7, | 2.7, | 3.2, |
| Speak Indig Persons | 3.7, | 2.0, | 3.6, | 3.6, | 3.1, | 3.1, | 2.3, | 3.3, | 3.3, | 2.7, | 2.7, | 2.6, |
| male | 3.5, | 1.8, | 3.6, | 3.3, | 3.1, | 2.1, | 2.0, | 3.3, | 3.2, | 3.0, | 3.0, | 2.2, |
| female | 3.4, | 3.0, | 3.7, | 3.6, | 3.6, | 3.5, | 2.9, | 2.9, | 3.5, | 3.6, | 3.6, | 3.6, |
| Speak Ethnic Group | 3.2, | 2.9, | 3.7, | 3.8, | 3.6, | 2.7, | 2.8, | 3.1, | 3.4, | 3.8, | 3.8, | 2.9, |
| male | 3.5, | 2.9, | 3.5, | 3.5, | 3.6, | 3.3, | 2.8, | 3.2, | 3.7, | 3.4, | 3.4, | 3.2, |
| female | 3.5, | 3.0, | 3.4, | 3.6, | 3.6, | 2.8, | 2.8, | 3.3, | 3.7, | 3.4, | 3.4, | 2.9, |
| Visit Indigen Assoc | 2.1, | 1.4, | 1.4, | 1.6, | 2.2, | 1.7, | 1.7, | 1.3, | 1.7, | 1.6, | 1.6, | 1.8, |
| male | 1.7, | 1.1, | 1.2, | 1.2, | 2.4, | 1.5, | 1.4, | 1.3, | 1.6, | 1.4, | 1.4, | 1.3, |
| female | 3.0, | 2.7, | 1.8, | 2.7, | 3.0, | 2.3, | 3.0, | 1.9, | 2.8, | 2.6, | 2.6, | 3.0, |
| male | 2.6, | 1.3, | 1.4, | 3.3, | 2.8, | 1.8, | 1.8, | 1.7, | 2.3, | 1.9, | 1.9, | 1.9, |
| female | | | | | | | | | | | | |

Determinants of Social Integration: An Overview

Before regression analyses we shall take a look at the distribution over the sub-samples of the factors identified as potential predictors of social integration. Table 22 shows mean values of important demographic variables in groups and cities by sex. The values refer to the second point of measurement, t_2 (cf. the introduction for the reasoning behind this selection). The first two rows display the mean observation year t_2 , i.e. the year about which respondents spoke when asked about their social integration in the middle of their sojourn. This is just another expression of the length of stay shown in the rows below. There is some variation between groups, reflecting their migration history. Moroccans in Amsterdam and Serbs in Bielefeld arrived first, and Turks in Stockholm and Hindus in Lisbon came last. Female respondents arrived two to four years later than males of the same groups which results in differences of one to two years at mid-stay. The age structure partly corresponds with the periods of arrival. Serbs and Moroccans are generally among the eldest while the age structure of the Turkish samples varies between cities.

The shares of naturalized individuals vary sharply. Highest percentages have been measured in Sweden, where both 9 in 10 Moroccans and Turks have acquired local passports, followed by Portugal and the Netherlands. The German samples lag far behind. Due to restrictive naturalization policy, Serbs achieve only a percentage of around 9% and Turks of less than 30% which matches the national averages (cf. Salentin 2002). There is no consistent sex effect in naturalization.

Next, we have calculated the years respondents spent in employment up to t_2 . The groups recruited as labour migrants, such as the male Serbs and Turks in Germany and Austria, and post-colonial migrants in Portugal have spent almost their entire time in the receiving countries in jobs, while groups representing higher shares of housewives and migrants with a more political motivation (this is partly the case in Sweden) display gaps in their labour market participation biography. There is the notable case of female Moroccans in Amsterdam who practically never at all had any paid jobs.

Mastery of language of the receiving country was measured on a 5 point scale. Most groups are far from having learnt local languages perfectly. It is especially Moroccan and Turkish females who encounter language difficulties with means from 2 ("with difficulties") to 3 ("I can manage"). Hindus in Lisbon rank top among the samples. Turkish women understand local languages not as well as males.

The overwhelming majority of respondents lived in multi-person households. Except for the two Serb samples with a relatively high share of single person households, there is no clear pattern in the distribution of single vs. multi-person households over cities and groups. But obviously, single females are almost non-existent.

Finally, the fact that a person had an opportunity to attend school or undergo vocational training in the receiving country at first glimpse has to do with when in his or her biography immigration took place. Younger persons are more likely to stand this chance. However, according to the data country specific factors play a decisive role. E.g. the shares in Viennese migrants are lower than in the Bielefeld samples though the migrants in Germany did not arrive any later. In Sweden, a clear majority benefited from education and qualification (48% to 73%), whereas less than 16% of the Hindus in Lisbon did.

Table 22: Key Demographic Variables by Sex, Groups and Cities

| | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 |
|-----------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------|------|------|------|------|------|------|------|------|------|------|------|
| Mean Observation Year | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| male | 15.9 | 14.5 | 13.1 | 14.5 | 11.3 | 11.3 | 14.0 | 12.3 | 12.1 | 14.3 | 12.4 | 13.3 | 12.7 | 12.4 | 11.0 | 8.9 | 9.8 | 13.0 | 11.9 | 11.8 | | | | | | | | | | | | |
| female | 15.8 | 13.5 | 13.0 | 10.8 | 10.8 | 12.3 | 12.3 | 12.1 | 12.1 | 12.4 | 11.0 | 12.4 | 11.0 | 8.9 | 12.4 | 8.9 | 9.8 | 13.0 | 11.9 | 11.8 | | | | | | | | | | | | |
| Age (t2) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| male | 39.9 | 37.1 | 35.1 | 37.9 | 36.3 | 34.4 | 34.4 | 37.6 | 37.0 | 37.6 | 32.9 | 36.8 | 36.1 | 37.0 | 34.2 | 34.2 | 36.1 | 37.0 | 34.2 | 34.2 | | | | | | | | | | | | |
| female | 38.6 | 38.1 | 36.7 | 36.3 | 36.3 | 33.7 | 33.7 | 37.0 | 37.0 | 37.0 | 33.0 | 31.6 | 33.3 | 38.0 | 32.9 | 32.9 | 33.3 | 38.0 | 32.9 | 32.9 | | | | | | | | | | | | |
| Length of Stay | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| male | 15.9 | 14.5 | 13.1 | 14.5 | 11.3 | 11.3 | 14.0 | 12.3 | 12.1 | 14.3 | 12.4 | 13.3 | 12.7 | 12.4 | 11.0 | 8.9 | 9.8 | 13.0 | 11.9 | 11.8 | | | | | | | | | | | | |
| female | 15.8 | 13.5 | 13.0 | 10.8 | 10.8 | 12.3 | 12.3 | 12.1 | 12.1 | 12.4 | 11.0 | 12.4 | 11.0 | 8.9 | 12.4 | 8.9 | 9.8 | 13.0 | 11.9 | 11.8 | | | | | | | | | | | | |
| Naturalized (t2) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| male | 3.2% | 8.0% | 34.9% | 80.1% | 75.9% | 17.1% | 25.7% | 75.8% | 65.1% | 17.1% | 25.7% | 75.8% | 65.1% | 17.1% | 25.7% | 75.8% | 65.1% | 17.1% | 25.7% | 75.8% | | | | | | | | | | | | |
| female | 3.8% | 6.9% | 32.7% | 87.8% | 91.2% | 16.0% | 18.5% | 63.4% | 58.4% | 16.0% | 18.5% | 63.4% | 58.4% | 16.0% | 18.5% | 63.4% | 58.4% | 16.0% | 18.5% | 63.4% | | | | | | | | | | | | |
| Years in Jobs | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| male | 14.5 | 11.3 | 12.3 | 11.0 | 10.7 | 10.7 | 10.7 | 8.8 | 9.9 | 10.7 | 8.8 | 9.9 | 11.5 | 10.0 | 10.0 | 10.0 | 11.5 | 10.0 | 10.0 | | | | | | | | | | | | | |
| female | 10.8 | 5.0 | 10.0 | 3.1 | 7.5 | 7.5 | 7.5 | 2.0 | 5.6 | 7.5 | 2.0 | 5.6 | 9.5 | 5.2 | 5.2 | 5.2 | 9.5 | 5.2 | 5.2 | | | | | | | | | | | | | |
| Mastery RC Language | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| male | 3.5 | 2.8 | 3.7 | 4.3 | 2.7 | 2.7 | 2.7 | 2.6 | 3.1 | 2.6 | 3.1 | 3.3 | 2.9 | 3.3 | 3.3 | 3.3 | 2.9 | 3.3 | 3.3 | | | | | | | | | | | | | |
| female | 3.3 | 2.4 | 3.7 | 3.7 | 3.7 | 2.7 | 2.7 | 2.0 | 2.5 | 2.0 | 2.5 | 3.3 | 2.9 | 3.3 | 3.3 | 3.3 | 2.9 | 3.3 | 3.3 | | | | | | | | | | | | | |
| Single Person HH | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| male | 12.1% | 3.6% | 9.4% | 3.3% | 16.9% | 12.1% | 10.7% | 5.2% | 10.7% | 12.1% | 5.2% | 10.7% | 19.5% | 18.8% | 18.8% | 18.8% | 19.5% | 18.8% | 18.8% | | | | | | | | | | | | | |
| female | 8.3% | 1.4% | 4.8% | 1.4% | 7.5% | 2.3% | 2.3% | 0.0% | 4.8% | 2.3% | 0.0% | 4.8% | 11.0% | 2.5% | 2.5% | 2.5% | 11.0% | 2.5% | 2.5% | | | | | | | | | | | | | |
| Schooling in RC | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| male | 28.7% | 34.1% | 40.3% | 15.9% | 38.5% | 30.9% | 40.4% | 48.4% | 60.0% | 30.9% | 40.4% | 48.4% | 60.0% | 18.3% | 31.5% | 31.5% | 60.0% | 18.3% | 31.5% | | | | | | | | | | | | | |
| female | 23.3% | 22.8% | 27.9% | 15.5% | 54.5% | 23.7% | 29.8% | 56.1% | 72.8% | 23.7% | 29.8% | 56.1% | 72.8% | 18.3% | 18.3% | 18.3% | 72.8% | 18.3% | 18.3% | | | | | | | | | | | | | |

Multiple Regression

In this final part an attempt will be made to establish what factors have a precipitate on the extent of social integration as laid out in the introductory discussion. The dependent variables are (1) the number of friends of indigenous origin, (2) the frequency of communication with persons of indigenous origin and (3) the frequency of attendance of indigenous associations or formal, regular gatherings outside the home, dominated by natives.

Since standardized regression coefficients are dependent on sample-specific variance, they are not suitable for inter-group comparison. The tables therefore show unstandardised b coefficients of OLS regression. As we expect structural differences between the groups, we first perform separate regression estimations for each group. This has the advantage that between-sample differentials in the strength of effects become visible. Thereafter, the group data are pooled for one single model with group dummies. This has the advantage of showing more general effect patterns.

The meaning of the variables is as follows:

S04: Num friends of family/place of origin

S05: Num friends of ethnic group

Lengstay: Duration of Stay

Male (as opposed to female)

B36: naturalized, having valid passport of receiving country

L08K: Understand local language after 5 years

H1101: Single Person Household

NumJYear: Number of years in jobs

L01: Schooling in receiving country

S11k: Talk with family members and persons from the village of origin

S12k: Talk with persons from one's own ethnic group

S18k: Visit associations of one's own ethnic group

In Table 23, we see the effects on the number of autochthonous friends. In this model, naturalisation, single person household status, age, length of stay, sex and duration of labour market experience have no or only few significant effects in most local samples. As we have seen in part 3, duration of stay might well have an effect in the initial phase, but over the whole duration, it hasn't. The only almost consistent effects (significant in 6 or more sub-samples) are caused by language mastery, local schooling and number of co-ethnic friends. Thus, persons who have attended educational institutions in the receiving country have more friends, which is likely to be an effect of the given opportunity structure for making friends, but also of attitudinal differences connected to being acquainted with the local habits etc. The language effect as such is self-evident as hardly any communication with majority members is possible without some fluency in the majority language. Interestingly, its effect exists side by side with the educational effect though they are inter-correlated. What perhaps surprises most is the robust effect of the number of intra-ethnic friendships. Contrary to what is sometimes contended, those with many friends from their group of origin have rather more than less autochthonous friends. Whether this variable should really be called a predictor or just a covariate depends on the assumption that there is a competition between alternative friendship opportunity structures. The author is inclined to assume that people merely vary in their inclination to engage in social activity. Some have more, some have fewer friends. Those who

have more co-ethnic friends do not renounce autochthonous friends, they may not even categorize friends along ethnic lines.

Table 23: Regression on the Number of Friends of Indigenous Origin, by Cities

| | Bi eSer | Bi eTur | Li sCap | Li sHi n | RotCap | AmsMor | AmsTur | StoMor | StoTur | Vi eSer | Vi eTur |
|-----------|---------|---------|---------|----------|--------|--------|--------|--------|--------|---------|---------|
| Intercept | 0.27 | -0.30 | -0.47 | 1.75* | 0.98 | 0.68 | -0.05 | 1.69* | 1.26* | -0.77 | -0.07 |
| B36T2 | 0.12 | 0.06 | -0.27* | 0.53* | 0.06 | 0.26 | 0.16 | -0.33* | 0.07 | 0.43* | 0.07 |
| H1101 | 0.04 | -0.04 | -0.16 | -0.44 | 0.06 | -0.09 | -0.04 | -0.16 | 0.07 | 0.20 | 0.08 |
| L01 | 0.27 | 0.52* | 0.37* | -0.04 | 0.43* | 0.03 | 0.19 | 0.33* | 0.23 | 0.46* | 0.52* |
| L08K | 0.31* | 0.20* | 0.19* | 0.11* | -0.01 | 0.13* | 0.40* | 0.35* | 0.30* | 0.37* | 0.33* |
| S04 | -0.01 | 0.10 | -0.26* | -0.14* | 0.39* | -0.05 | 0.20* | -0.02 | -0.02 | 0.14* | 0.08 |
| S05 | 0.34* | 0.29* | 0.81* | 0.44* | 0.33* | 0.41* | 0.27* | 0.14* | 0.03 | 0.28* | 0.21* |
| age | -0.00 | 0.00 | -0.00 | 0.00 | -0.04* | -0.00 | -0.01 | -0.03 | -0.02* | 0.01 | -0.01 |
| lengstay | 0.00 | 0.01 | 0.07* | -0.02 | 0.03 | -0.01 | -0.02 | -0.01 | 0.07* | -0.01 | 0.02 |
| mal e | 0.02 | -0.14 | 0.03 | -0.00 | 0.01 | 0.15 | -0.08 | 0.04 | 0.13 | -0.07 | -0.23 |
| numj year | 0.00 | 0.01 | -0.03 | 0.01 | 0.01 | -0.00 | 0.02 | 0.00 | -0.02 | 0.02 | 0.03 |

data base: LIMTS survey, 2004-2005
* al pha < .05

Table 24 shows the results for the pooled samples. Dummies for the groups have been added into the model. Serbs in Vienna are the reference group. No interactions were tested since no plausible hypotheses about differential effects are at hand. The standardised betas are also included. The results are not surprising. In addition to the variables with significant effects in separate group models, number of friends from family/place of origin, length of stay, age and naturalization have significant, but not substantial effects (absolute betas of around 0.05 and less). Thus the basic predictors or covariates remain unchanged. Group dummies indicate level differences in the dependent variables. Hindus in Lisbon peak out with a higher number of friends (b is .95, almost one scale tick mark). There are other statistically significant effects but all group level differences are substantially irrelevant which means that controlling for relevant explanations, this indicator of social integration is nearly equal for most immigrant groups. R-square is satisfactory at 34%. This aspect of social integration may be explained simply in terms of language mastery, local schooling and what might be termed general friendship inclination.

Table 24: Regression on the Number of Friends of Indigenous Origin, Pooled Samples

| Variable | Label | Parameter Estimates | | | Standardized Estimate |
|-----------|-------------------------------|---------------------|----------------|---------|-----------------------|
| | | Parameter Estimate | Standard Error | Pr > t | |
| Intercept | Intercept | 0.30309 | 0.15129 | 0.0452 | 0 |
| S04 | Num friends of fam/place orig | 0.05353 | 0.01772 | 0.0025 | 0.05252 |
| S05 | Num friends of ethnic grp | 0.30351 | 0.01987 | <.0001 | 0.25354 |
| lengstay | Duration of Stay | 0.01660 | 0.00615 | 0.0070 | 0.05242 |
| age | Age | -0.00703 | 0.00241 | 0.0035 | -0.04989 |
| mal e | | -0.01526 | 0.04083 | 0.7086 | -0.00628 |
| B36T2 | | 0.03457 | 0.04688 | 0.4610 | 0.01380 |
| L08K | Undrstnd loc lang aftr 5y | 0.25823 | 0.01970 | <.0001 | 0.24185 |
| H1101 | Single Person Household | 0.07605 | 0.06593 | 0.2488 | 0.01716 |
| numj year | Number Job Years | 0.00345 | 0.00421 | 0.4133 | 0.01779 |
| L01 | Schooling in RC | 0.30146 | 0.04511 | <.0001 | 0.11740 |
| Bi eSer | | 0.10112 | 0.08551 | 0.2370 | 0.02392 |
| Bi eTur | | -0.26426 | 0.08526 | 0.0020 | -0.06149 |
| Li sCap | | 0.11508 | 0.08324 | 0.1669 | 0.02777 |
| Li sHi n | | 0.95234 | 0.09148 | <.0001 | 0.23085 |
| AmsMor | | -0.14976 | 0.08736 | 0.0866 | -0.03508 |
| AmsTur | | -0.10377 | 0.08368 | 0.2150 | -0.02556 |
| RotCap | | 0.42246 | 0.09513 | <.0001 | 0.09234 |
| StoMor | | -0.12691 | 0.09004 | 0.1588 | -0.02977 |
| StoTur | | 0.03759 | 0.09233 | 0.6839 | 0.00889 |
| Vi eTur | | -0.12923 | 0.08155 | 0.1132 | -0.03142 |

Number of Observations Used 3137

| Analysis of Variance | | | | | |
|----------------------|---------|----------------|-------------|---------|--------|
| Source | DF | Sum of Squares | Mean Square | F Value | Pr > F |
| Model | 20 | 1573.25501 | 78.66275 | 80.89 | <.0001 |
| Error | 3116 | 3030.20499 | 0.97247 | | |
| Corrected Total | 3136 | 4603.45999 | | | |
| Root MSE | 0.98614 | R-Square | 0.3418 | | |
| Dependent Mean | 2.42684 | Adj R-Sq | 0.3375 | | |

Next, we shall address the frequency of communication with indigenous persons (table 25). This time, we include the respective intra-ethnic complement of the target variable: it is now frequency of talks with co-migrants. Otherwise, the covariates remain the same. Results look pretty much like above, with one exception. Local schooling does not predict frequency of communication with natives as consistently as it does number of friends. The direction however matches the expectation. Language mastery and interaction with co-ethnics explain the criterion variable throughout the samples. Again, there seems to be no contradiction between having social intercourse with both natives and migrants. In table 26, we find the pooled model. Number of job years now achieves a substantial effect (beta=.11). Working experience, or rather: the opportunities for social contacts in the occupational sphere accumulated over time thus find their precipitate in social intercourse. The longer time a migrant has spent together with colleagues, the more frequently will he or she communicate with indigenous people. Three out of four Turkish groups have less communication, while Serbs in Bielefeld report a higher level than their counterparts in Vienna. R-square is high at 37%.

Table 25: Regression on the Frequency of Talks With Persons of Indigenous Origin, by Cities

| | Bi eSer | Bi eTur | Li sCap | Li sHi n | RotCap | AmsMor | AmsTur | StoMor | StoTur | Vi eSer | Vi eTur |
|-------------|---------|---------|---------|----------|--------|--------|--------|--------|--------|---------|---------|
| , Intercept | 3.44* | 0.05 | 0.50 | 1.47* | 2.02* | 0.19 | 0.79 | 3.03* | 2.88* | -1.05 | 0.99 |
| , B36T2 | 0.30 | 0.03 | 0.12 | 0.20 | -0.05 | 0.40* | 0.01 | 0.21 | 0.15 | 0.48* | 0.02 |
| , H1101 | -0.04 | 0.33 | -0.10 | 0.12 | -0.10 | -0.17 | -0.03 | -0.41 | -0.02 | 0.23 | 0.05 |
| , L01 | 0.09 | 0.52* | 0.15 | -0.13 | 0.15 | 0.30 | 0.03 | 0.03 | 0.08 | 0.36* | 0.72* |
| , L08K | 0.16* | 0.38* | 0.06 | 0.28* | 0.25* | 0.26* | 0.26* | 0.16* | 0.25* | 0.41* | 0.22* |
| , age | -0.03* | 0.00 | -0.00 | -0.00 | -0.03* | -0.01 | -0.01 | -0.02 | -0.03* | 0.02* | -0.02 |
| , lengstay | -0.02 | 0.01 | -0.02 | -0.03 | -0.01 | 0.02 | -0.02 | -0.02 | -0.02 | -0.03 | 0.05 |
| , male | 0.03 | -0.02 | -0.06 | 0.02 | -0.05 | 0.46* | -0.02 | 0.15 | 0.00 | -0.17 | 0.24 |
| , numj year | 0.04* | -0.01 | -0.00 | 0.03* | 0.03 | -0.00 | 0.03 | 0.03 | 0.05* | 0.03 | -0.00 |
| , s11k | 0.05 | 0.00 | -0.02 | -0.23* | 0.05 | 0.09 | 0.08 | -0.10 | 0.07 | 0.16* | -0.05 |
| , s12k | 0.11* | 0.18* | 0.88* | 0.47* | 0.36* | 0.39* | 0.34* | 0.18* | -0.02 | 0.36* | 0.16 |

data base: LIMITS survey, 2004-2005

* al pha < .05

Table 26: Regression on the Frequency of Talks With Persons of Indigenous Origin, Pooled Samples

| Variable | Label | Parameter Estimates | | | Standardized Estimate |
|-----------|-----------------------------|---------------------|----------------|---------|-----------------------|
| | | Parameter Estimate | Standard Error | Pr > t | |
| Intercept | Intercept | 1.13038 | 0.15496 | <.0001 | 0 |
| s11k | Talk w fam memb+co-villagrs | 0.03138 | 0.02185 | 0.1511 | 0.02437 |
| s12k | Talk w own eth group | 0.25933 | 0.02411 | <.0001 | 0.18695 |
| lengstay | Duration of Stay | -0.00466 | 0.00601 | 0.4383 | -0.01478 |
| age | Age | -0.00987 | 0.00233 | <.0001 | -0.07068 |
| male | | 0.01098 | 0.03954 | 0.7814 | 0.00454 |
| B36T2 | | 0.12491 | 0.04548 | 0.0061 | 0.05007 |
| L08K | Undrstnd loc lang aftr 5y | 0.27990 | 0.01909 | <.0001 | 0.26335 |
| H1101 | Single Person Household | 0.01232 | 0.06416 | 0.8477 | 0.00279 |
| numjyear | Number Job Years | 0.02063 | 0.00409 | <.0001 | 0.10722 |
| L01 | Schooling in RC | 0.20162 | 0.04369 | <.0001 | 0.07879 |
| Bi eSer | | 0.68965 | 0.08250 | <.0001 | 0.16485 |
| Bi eTur | | -0.57735 | 0.08365 | <.0001 | -0.13514 |
| Li sCap | | 0.44158 | 0.08051 | <.0001 | 0.10719 |
| Li sHi n | | 0.27220 | 0.08833 | 0.0021 | 0.06637 |
| AmsMor | | 0.14368 | 0.08420 | 0.0880 | 0.03385 |
| AmsTur | | -0.40552 | 0.08303 | <.0001 | -0.10049 |
| RotCap | | 0.16297 | 0.09122 | 0.0741 | 0.03563 |
| StoMor | | 0.39794 | 0.08749 | <.0001 | 0.09268 |
| StoTur | | 0.17750 | 0.08770 | 0.0431 | 0.04249 |
| Vi eTur | | -0.39480 | 0.07971 | <.0001 | -0.09656 |

Number of Observations Used 3132

| Analysis of Variance | | | | | |
|----------------------|---------|----------------|-------------|---------|--------|
| Source | DF | Sum of Squares | Mean Square | F Value | Pr > F |
| Model | 20 | 1699.31958 | 84.96598 | 92.77 | <.0001 |
| Error | 3111 | 2849.22703 | 0.91586 | | |
| Corrected Total | 3131 | 4548.54662 | | | |
| Root MSE | 0.95700 | R-Square | 0.3736 | | |
| Dependent Mean | 2.92976 | Adj R-Sq | 0.3696 | | |

Finally, association attendance was analyzed (tables 27, 28). The results may be put in brief: the picture resembles the analysis of the above two aspects of social integration. Local language and schooling predict frequency of visits somewhat less consistently, yet clearly. The complement variable, ethnic association attendance, has a significant positive effect in all subsamples. In the pooled model, its strength stands out ($\beta = .28$). Controlling for these covariates, only Rotterdam's Cape Verdians (higher social integration, $\beta = .13$) and Lisbon's Hindus (lower social integration, $\beta = -.13$) deviate from the general level. R-square is lower than before (23%), but still quite satisfactory.

Table 27: Regression on the Number of Visits to Indigenous Organizations, by Cities

, Bi eSer , Bi eTur , Li sCap , Li sHi n , RotCap , AmsMor , AmsTur , StoMor , StoTur , Vi eSer , Vi eTur ,
 , Intercept , 1.47* , 1.79* , 0.37 , 0.95* , 0.77 , 1.30* , 0.96* , 1.11* , 0.23 , 0.36 , 0.62 ,
 , B36T2 , 0.86* , -0.20 , -0.02 , -0.16 , 0.74* , 0.40* , 0.13 , -0.08 , 0.10 , 0.46* , 0.10 ,
 , H1101 , 0.29 , -0.04 , -0.46* , 0.14 , -0.27 , 0.07 , -0.29 , -0.10 , 0.28 , -0.02 , 0.62* ,
 , L01 , 0.36* , 0.66* , 0.09 , 0.22 , 0.37* , 0.16 , 0.11 , 0.28* , 0.32* , 0.13 , 0.65* ,
 , L08K , 0.20* , -0.12* , 0.04 , 0.11* , 0.05 , 0.09 , 0.22* , 0.07 , 0.19* , 0.14* , 0.08 ,
 , age , -0.02* , -0.01* , -0.00 , 0.00 , -0.02* , -0.01 , -0.01 , -0.01 , -0.00 , -0.00 , -0.00 ,
 , lengstay , 0.01 , -0.02 , 0.02 , -0.05 , 0.05* , -0.02 , -0.03 , 0.00 , -0.01 , 0.00 , 0.01 ,
 , male , 0.31* , 0.12 , 0.07 , 0.14 , -0.11 , 0.02 , -0.26 , 0.08 , -0.05 , 0.07 , 0.06 ,
 , numj year , -0.01 , -0.00 , -0.00 , 0.03* , -0.02 , 0.00 , 0.02 , -0.00 , 0.01 , -0.01 , 0.02 ,
 , s18k , 0.11* , 0.14* , 0.37* , 0.11* , 0.34* , 0.31* , 0.24* , 0.18* , 0.27* , 0.29* , 0.11* ,
 data base: LIMITS survey, 2004-2005
 * al pha < .05

Table 28: Regression on the Number of Visits to Indigenous Organizations, Pooled Samples

| Variable | Label | Parameter Estimates | | | Standardized Estimate |
|----------------------------------|------------------------------|---------------------|----------------|---------|-----------------------|
| | | Parameter Estimate | Standard Error | Pr > t | |
| Intercept | Intercept | 0.89205 | 0.12068 | <.0001 | 0 |
| s18k | Visit assoc's of own eth grp | 0.21134 | 0.01271 | <.0001 | 0.28350 |
| lengstay | Duration of Stay | -0.00039940 | 0.00541 | 0.9412 | -0.00155 |
| age | Age | -0.00840 | 0.00212 | <.0001 | -0.07312 |
| male | | 0.06136 | 0.03647 | 0.0926 | 0.03089 |
| B36T2 | | 0.12906 | 0.04108 | 0.0017 | 0.06309 |
| L08K | Undrstnd loc lang aftr 5y | 0.11413 | 0.01722 | <.0001 | 0.13097 |
| H1101 | Single Person Household | 0.08806 | 0.05817 | 0.1302 | 0.02420 |
| numj year | Number Job Years | 0.00247 | 0.00369 | 0.5045 | 0.01558 |
| L01 | Schooling in RC | 0.32360 | 0.03968 | <.0001 | 0.15437 |
| Bi eSer | | 0.19902 | 0.07465 | 0.0077 | 0.05763 |
| Bi eTur | | -0.15131 | 0.07483 | 0.0432 | -0.04290 |
| Li sCap | | -0.25865 | 0.07359 | 0.0004 | -0.07619 |
| Li sHi n | | -0.49151 | 0.08087 | <.0001 | -0.14543 |
| AmsMor | | 0.15860 | 0.07603 | 0.0371 | 0.04534 |
| AmsTur | | -0.04120 | 0.07362 | 0.5758 | -0.01243 |
| RotCap | | 0.43340 | 0.08285 | <.0001 | 0.11585 |
| StoMor | | -0.36181 | 0.07761 | <.0001 | -0.10461 |
| StoTur | | -0.21075 | 0.07885 | 0.0076 | -0.06198 |
| Vi eTur | | -0.07714 | 0.07200 | 0.2841 | -0.02289 |
| Number of Observations Used 3159 | | | | | |
| Source | DF | Sum of Squares | Mean Square | F Value | Pr > F |
| Model | 19 | 713.39715 | 37.54722 | 49.55 | <.0001 |
| Error | 3139 | 2378.48889 | 0.75772 | | |
| Corrected Total | 3158 | 3091.88604 | | | |
| Root MSE | 0.87047 | R-Square | 0.2307 | | |
| Dependent Mean | 1.57930 | Adj R-Sq | 0.2261 | | |

Summary and Conclusion

This analysis of social integration is based on a survey of migrants from different countries of origin in cities in different target countries in Europe. A close look was taken at the informal interaction patterns of migrants with members of the autochthonous populations and at formal association attendance. It is evident that local variations exist. However, some general mechanisms could be detected.

(1) Social integration increases in the initial stages of migrants' life abroad on all three measures available for analysis. After about 10 years, no more changes take place until the retreat from the labour market when social activity in general decreases. Here, Turks stand out almost everywhere.

(2) It is hard to attribute social integration differentials to specific groups of origin or to specific target countries. Turkish migrants frequently display lower social integration measures than other groups. Multivariate analysis tells that this in part has to do with variations in the main predictors, language capacities and local school attendance. However, in several instances, this holds true even controlling for other important predictors. Nevertheless, controlling for these variables, there are no very pronounced group differences. One can only speculate about where "cultural" factors or the sheer size of the local communities determining opportunity structures is behind remaining effects.

(3) In a bivariate comparison, women are less integrated than men. This, too, has to do with their language and schooling experience. In a comprehensive multiple regression model controlling for these predictors and other social activity variables, the sex effect is insignificant.

(4) The data do not substantially corroborate the notion that holders of passports of the receiving country have a smaller social distance towards members of the receiving society. What matters for social integration is primarily that a person has followed education locally and understands the language spoken in his receiving country.

(5) Fears that friendships and institutions supplied by the migrant community restrict social participation in the encompassing society are not warranted. The opposite has been shown: Persons with an active integration into migrant social life are time better integrated into the receiving society than those with few ties with co-migrants. Against the background of these findings, political considerations of curbing down collective migrant activities to stimulate participation in formal and informal networks of the receiving society seem ill-founded.

4 Conclusions and policy implications

The countries included into the LIMITS research are Austria, Germany, the Netherlands, Portugal, and Sweden²⁷. The selection of these countries was based on their specific histories of immigration and their political frameworks. In methodological terms, the different countries can be considered as independent variables. The complexity of their variations can only be briefly mentioned here. Austria and Germany were chosen based on their history as former 'guest worker' contracting countries. Although also other countries such as Sweden and the Netherlands brought in 'guest workers', a highly organised state recruitment apparatus in Mediterranean countries was characteristic of the German and Austrian policies. However, the two countries differ significantly in their regulatory frameworks regarding immigrants' access to the labour market as well as residency permits or citizenships. Besides, Austria is a particular case in terms of its strongly corporatist welfare structure. Sweden does not only hold the reputation of a classic social democratic welfare state, but also of an immigration country that made its welfare system accessible to immigrants and introduced a number of special services for them. Together with Sweden, the Netherlands in the past has been described as a country with 'multi-cultural' immigration policies. Due to its colonial past, the Netherlands have received immigrants from both overseas as well as from Europe and have created initially a rather welcoming regulatory framework regarding immigrants' access to the labour market and to social rights. Over the last 15 years, however, the Netherlands' multicultural reputation has faded. Portugal has been included as one of the Southern European emigration countries which turned into an immigration country only more recently, with immigrants mainly from former colonies such as Cape Verde and Mozambique²⁸.

The objectives of this project are twofold: firstly, we provide a dataset with unprecedented possibilities to improve the knowledge on the critical relationship between local/national contexts on the one hand, and the pre-migration background and life courses of immigrants in the destination country on the other hand. Secondly, the dataset offers ample opportunity to develop further the methodological armamentarium of the social sciences, especially on the subject of the analysis of retrospectively collected longitudinal data. The dataset will serve as a knowledge base for future policy development, making possible the identification and analysis of issues of importance for European policy, for instance on the domain of the labour market, residence, migration and naturalisation regulations, justice, freedom and security. However, to generate results on which European policy could be based, extended analyses are necessary, after the LIMITS project is concluded.

The idea behind the research is that common events in the life cycle of first generation immigrants play an important role in explaining differences in economic position and social participation of immigrants and their offspring. The research uncovers different trends in the life course of immigrants and their families, within and across immigrant groups and receiving countries. As has been illustrated in previous comparative research on the legal and economic integration of immigrants in different European countries, 'national' differences persist on the level of participation in the labour market as well as in terms of the social and political rights ascribed to immigrants. The status passages of immigrants (as evident from their household, residential and work history) are most probably dependent on the specific national and local framing conditions at their residency, as the receiving societies have gone

²⁷ Due to the withdrawal of Leicester (Great Britain) from the project, only five countries (six cities) have been considered in the analysis.

²⁸ The Indian immigrants in the Portuguese sample are in two thirds of the cases born in Mozambique, and for one third born in India (LIMITS Codebook, p. 17). A different sample criterion has been used for this group; instead of 'country of birth', the criterion was 'born abroad' and 'Hindu religion' (self-reported).

through different immigration experiences, and vary in size, and in terms of immigration policy and welfare regime.

The focus of LIMITS' research is on first generation immigrants from different sending countries, in six cities in five European countries. The project aims to identify trends in the life courses of six selected groups of immigrants. It employs a double viewpoint: a comparative perspective across different groups in six European cities, and a longitudinal perspective on the migrant's complete life trajectory which has been almost entirely missing from migration research.

The cities included into the analysis are Amsterdam, Bielefeld, Lisbon, Rotterdam, Stockholm and Vienna. The selection of these cities was based on their metropolitan character and their countries' specific histories of immigration and political frameworks. The immigrants included in the research are identified by their place of birth. The research is thus focused on the so-called first generation. The sending countries included in the research are Turkey (Amsterdam, Bielefeld, Stockholm and Vienna), Morocco (Amsterdam and Stockholm), Serbia (Bielefeld and Vienna) and Cape Verde (Lisbon and Rotterdam). Besides, in Lisbon immigrants with an Indian (Hindu) ethnic and religious background, mostly from former Portuguese colonies in Africa, are included in the research. Except for country of birth²⁹, it was decided that the selection of respondents had to meet two other criteria. Respondents had to be at least 35 years of age, and to have a residence in the receiving country of at least 15 years.

Composition of the research population in terms of groups and countries

| Migrant groups under study in the following countries | | | | | |
|---|---------|-----------------|---------|--------|----------|
| | Germany | The Netherlands | Austria | Sweden | Portugal |
| Turkish | | | | | |
| Serbian | | | | | |
| Moroccans | | | | | |
| Cape Verdian | | | | | |
| Indian | | | | | |

The data which have been collected cover the lives of the respondents on a wide spectrum of domains. The longitudinal format enables the detailed analysis of the post-immigration life course on the domains of household, housing and relation to the labour market, using the statistical methods of Event History Analysis (EHA). Every change in the household composition, and every spell in the housing and labour market career has been recorded, documenting the basic characteristics of every change and spell. For three moments in the post-migration life course of every individual respondent, at the start, the middle of stay and the current situation, additional relevant data on the housing and labour market circumstances were collected. Data on intra- and inter-group relations in the informal sphere were likewise for these three moments collected.

²⁹ As in Lisbon Indian immigrants could not be identified by country of birth (they mostly come from Mozambique, from which country many other immigrants came to Portugal), they were included in the sample by the method of self-identification.

Besides, the trends to be discovered this way in post-immigration careers can be related to 1) a rich set of pre-migration data, covering amongst other things the educational and labour market profile of the parents of the respondents and of the respondents themselves prior to migration, their (urban or rural) living conditions in the country of origin and their region of origin, 2) the history of immigration of the respondents and that of their families, including the complete history of the formation of the household, trans-national social networks and migration motives existing prior to the arrival in the destination country, and 3) the educational and labour market profile of the partners and the children. Being a pilot study, its most explicit aim is the provision of a unique dataset for longitudinal analysis, accessible for every social scientist active in the field of migration. The analyses that are performed upon the data within the time frame of the LIMITS project are restricted in scope, as the focus is on the preparation of the dataset for public access. In this final report we have focused on basic analyses that map out for the social scientific community the possibilities of the dataset, and the directions into which further analyses could develop.

Pre-migration influences

We have looked into the influence of so-called pre-migration factors on the social position of immigrants. In this respect, we have asked ourselves to what degree the social position of first generation immigrants, as conveyed by the status of their profession, is affected by factors pertaining to their experiences in their country of origin. The explaining variables chosen here are of a special nature. They are sought in the experiences of the respondents in their country of origin, more specifically in the educational capital of their parents, the character of the place where they grew up (town or village), their own achieved level of schooling, and their experiences in the labour market before they left the country. As this analysis should be seen as a first exercise using the LIMITS dataset in causally relate experiences before and after migration, the focus is here on the explanans, rather than on the explanandum. Of course, already in this paragraph we aim to give an explanation for the social position of our respondents in their host country. We have chosen, as the main indicator for social position, the level of occupation reached by the respondents when they were in the middle of their post-migration life course. However, the economic activities of the survey population (in particular their relation to the labour market, their sector of industry and their level of occupation) are dealt with more thoroughly in another paragraph below. This part of the analysis merely explores, in a tentative way, the relationship between pre-migration background and post-migration life course.

We found that parents' education has a significant positive effect on the probability of attaining a higher level of occupation in the destination country. Striking in this respect is that the educational background of the mother gives a somewhat larger effect than that of the father. Also, the place in which one has grown up in the home country (either a more rural, or a more urban environment) has a significant impact on the professional level one attains in one's work in the country of destination. Being a male (gender has, as could be expected, a significant influence) and having grown up in a city area increase the probability of achieving a better qualified position in work in the immigration society. Taking these influences into account, the education of the parents has still a positive impact on the probability of attaining a higher job level. Only after controlling for schooling and job level of the respondent in the country of origin, parents' educational level loses its significance, which means that educational level of respondents and that of their parents in the country of origin are strongly interrelated.

From this, we should not conclude that differences in educational level between the generations are insignificant. In fact, a consistent improvement in pre-migration educational attainment can be observed when we compare the figures of the immigrants with those of

their parents. This improvement is most outspoken in the case of the Serbs in Bielefeld and Vienna, and the Hindus in Lisbon, especially when we look at the increase of the share of certificates in secondary education. Moroccans in Amsterdam have by far the most humble educational profile; here an especially conspicuous contrast can be observed with Moroccans in Stockholm. Comparing the sexes, we see huge differences to the advantage of the male respondents. The differences seem to be of the same magnitude as those between the mothers and fathers of the respondents. However, differences between the male and female respondents are significantly less large compared to the differences between the male respondents and their fathers. Female immigrants have considerably improved their schooling level compared to that of their fathers in all groups, including those with the lowest educational profile, already before coming to the destination country. The difference with their mothers' schooling level is still very much larger.

Working experience of immigrants in the home country also significantly affects the professional position in the destination country. Immigrants with working experience in their home country tend to continue working on the same level after immigration. By and large, these results prevail when we control for the different home countries. When controlling for country of origin, and taking the Cape Verdes as point of reference, we found that Hindu immigrants attain significantly better job levels than those from the Cape Verdes, while immigrants from Turkey remain in the lower occupational strata of the labour market to significant degree.

We found that the schooling of respondents before immigration has a positive significant effect on the probability of attaining a job at all but the lowest occupational level (elementary occupations). Correspondingly, having grown up in an urban environment, increases the probability that one is able to avoid employment at the lowest occupational level. Migrants from rural areas are more likely to work at the lowest occupational level. Similar trends apply for respondent's job level in his/her country of origin. Lastly, the distribution of job levels over our research population is profoundly gendered: compared to women, men are significantly more often engaged at the four highest occupational levels at the middle of their post migration life course. In the section on structural integration we will pursue this matter further.

Implications for policy should be formulated prudently at this stage. It seems however clear that acquired skills through education and work in the country of origin have played an important role in succeeding to escape the most unskilled and elementary jobs at the bottom of the labour market. This lowest occupational level constitutes the echelon of economic activity in which Western European countries have welcomed labour migrants in the 60's, 70's and 80's of the last century, and represents also the category of labour in which so many employees (among which labour migrants were so prominent) remained without work over the past decades, when major transformations in the European economy materialised. The decrease in employment rates over time within our research population will be established and commented upon in the next paragraph. As pre-migration skills obviously do make a difference, we recommend that policy be less fixated on the 'danger of immigration', and allow for a more balanced approach to the phenomenon, considering seriously the skills and education which today's immigrants bring with them when they come to Europe.

Structural integration - labour

In what concerns structural integration through the labour market, the project addressed topics such as the evolution of employment and unemployment rates over time, the economic sectors and branches migrants tend to work in and occupational upward mobility patterns.

The empirical information gathered by the project is compared with other relevant data in the light of contextual differences regarding migration and social policy in the six European cities.

The labour market experience of the interviewed migrants in the six cities is characterized by changes and continuities all along their migration trajectories. An important change has been the decrease in the employment rates from the middle of their trajectory to the moment of the interview. This is due, on the one hand, to the fact that many immigrants reach retirement age and, on the other hand, to unemployment.

The distribution across economic sectors has been more stable. Some changes occurred over time, but they did not alter the broader structural position of immigrants in the labour market. This is also true for occupational composition. A certain amount of movements between types of occupations happened in each city and group, but many immigrants stand in the same kind of occupation during their entire labour market trajectories. Three points should be stressed as main conclusions.

The first one has to do with differences in the immigrants' economic participation regimes across groups and cities. In every dimension covered by our research we found important differences in this respect. There are sharp contrasts in the economic sectors in which immigrants mostly participate. In some cases it may be the industry, in other cases it is the construction or the services sector. Another example is that groups with the same ethnic background have different occupational profiles in different cities.

A second point is that immigrants' labour market experience is a gendered one. Compared to men, women in each group and city have a lower labour market participation rate, despite the fact that their participation increases over time. The economic sectors men and women tend to work in are also very different ones. While men are highly concentrated in industry and construction women are mostly to be employed in the service or domestic sector. Yet, in contrast to male, females' participation rates do increase with further education in the receiving country. It should also be noted that women's labour situation is heterogeneous across groups and cities.

The third point to be stressed is the probability of an upward occupational mobility over time. In general terms, there is no evidence of far-reaching social mobility. More specific findings are that groups such as the Turks are not likely to have significant upward moves and the same happens with women when compared to men. Education is a major factor of upward mobility, unlike the year of arrival, whose effect is insignificant.

Structural integration - housing

We consider the housing situation an important indicator for the quality of life and for the integration of immigrants in the receiving country. As criteria for the quality of housing we analysed particularly the type of the dwellings the respondents lived in and the ratio of the number of persons and rooms in the dwelling. The detailed analyses (see D14 on Housing) revealed noticeably differences between the different European cities and the ethnic groups, pointed out changes in the housing conditions over the time and displayed factors influencing the size of a dwelling of the respondents. The most important, general outcomes are the

following: 1) The type of the dwelling and the individual housing situation of the immigrants is noticeably influenced by the local housing conditions. Simultaneously, preferences towards housing related to one or the other immigrant group have not been found. Whereas the distributions between the different samples in the same city are quite similar, the distributions of the different cities vary noticeable. 2) The most frequent type of dwelling is a rented flat or house. The share of respondents living in such a kind of dwelling amounts to 70% at the moment of the interview. In all cities except for Lisbon the majority of respondents reside in a rented dwelling. 3) The status of the dwelling improved definitely over time in all groups and cities; although still a clear minority, the share of owned apartments has increased significantly. 4) The average duration of stay in the dwelling where people were living at the moment of the interview amounts to almost twelve years. 5) In general the average number of household members in the samples decreased over the years, whereas the average number of rooms increased. The share of respondents living in precarious housing conditions declined as well noticeably over the years.

All results considered it can be concluded that the individual housing situation of the respondents in terms of the type and the occupancy of the dwelling is more distinctly influenced by standards of the receiving country and the local housing conditions in the respective city than by the country of origin of the respondent.

Furthermore, the housing conditions of our target group, first generation migrants, have noticeable bettered over time in all cities and groups. For an efficient integration of immigrants, policy has to avoid the deficits of the past and has to allow future immigrants to move into appropriate dwellings as soon as possible after settlement in the country of destination. Then, the results make clear that a sizable group of immigrants in all cities live in a congested housing situation. It goes without saying that it concerns predominantly families with numerous children. As the chances of the next generation are involved, local and national policy makers should all the more give priority to an effective housing policy which facilitates a sufficient number of sized and affordable dwellings for the groups involved.

Social integration

In this survey social integration of migrants into the receiving society was defined as the presence of close friend of indigenous origin, frequency of interaction with them, and the frequency of visits to indigenous organisations. It has been shown that at a group level the overall degree of interethnic interaction varies considerably in that it is lower for some groups of origin, as the Turks in some countries, presumably for reasons of poor language acquaintance, and better for others, such as Hindus in Lisbon and Cape Verdians in the Netherlands and in Lisbon. In fact, regression analysis has shown that all other things equal, mastery of language is one of the most powerful determinants of interethnic intercourse, both on an informal level (friendship) and on a formal level (participation in organisations). Thus in those countries where immigrants do not speak local majority languages, if social integration is to be promoted, efforts should be directed at the provision of language learning opportunities. Among the groups that are not sufficiently able to communicate in the vernaculars are often the elderly and women. They deserve special attention as their social integration is often rather poor if our measures are anything to go by.

Jobs often provide a field of interethnic interaction. For some groups it has been shown that the number of years a person has spent in employment is a predictor of the extent of interethnic friendships. Though this effect is not consistent, it points at ways of better incorporating hitherto socially not well integrated parts of the migrant population into mainstream society.

Changes over time seem to be quite frequent in all countries and groups and are probably linked to the life-cycle of migrants. After a steady increase in the initial phases of sojourn, there regularly seems to be a decrease in the age span above 60 years. This however needs not be anything to worry about as it coincides with the retreat from the labour market. It rather shows that jobs are important for social integration and underline the necessity to undertake any effort to incorporate the offspring of first generation migrants into the national labour markets. As to the social integration of the latter, the situation can be expected to improve greatly as for the first generation, the fact that a person has attended school in the country of reception has turned out to be another strong predictor of social integration.

Finally, the role of integration of migrants into intra-ethnic social structures such as migrant organisations has been analysed. Fears that friendships among migrants and such institutions supplied by the migrant community restrict social participation in the encompassing society are not warranted. The opposite has been shown: Persons with an active integration into migrant social life are time better integrated into the receiving society than those with few ties with co-migrants.

Policy implications

Implications for policy should be formulated prudently at this stage. It seems however clear that acquired skills through education and work in the country of origin have played an important role in succeeding to escape the most unskilled and elementary jobs at the bottom of the labour market. This lowest occupational level constitutes the echelon of economic activity in which Western European countries have welcomed labour migrants in the 60's, 70's and 80's of the last century, and represents also the category of labour in which so many employees (among which labour migrants were so prominent) remained without work over the past decades, when major transformations in the European economy materialised. As pre-migration skills obviously do make a difference, we recommend that policy be less fixated on the 'danger of immigration', and allow for a more balanced approach to the phenomenon, considering seriously the skills and education which today's immigrants bring with them when they come to Europe.

Occupational profiles depend heavily on the local context in which immigrants live. Also, within one local context the labour market career is diversified within and between groups. Clear-cut policy recommendations to improve the situation of immigrants who have settled in the destination countries since years are therefore difficult to give. In general terms, there is no evidence of far-reaching social mobility in terms of occupational level. Nonetheless, concerning labour market participation, in all the diversity over cities and groups we have observed that women in each group and city have a lower participation rate than men. Simultaneously, however, we could establish that, in contrast to males, females' participation rates do increase with further education in the receiving country. This might be related to the fact that the sectoral distribution of labour over the survey population is deeply gendered. Women, for instance, are predominant in the service sector, where modest schooling might open doors to typical women's jobs. It could also be related to the considerable arrears in labour market participation that women on the whole still have compared to men; their schooling lags behind as well, so there is leeway women are making up for. Be that as it may, here an apparent opportunity for policy presents itself: intensification of schooling of women of immigrant background *of the first generation*, focused on specific occupations in specific sectors of the labour market, might well pay off.

The individual housing situation of the respondents in terms of the type and the occupancy of the dwelling is more distinctly influenced by standards of the receiving country and the local housing conditions in the respective city than by the country of origin of the respondent.

Furthermore, the housing conditions of first generation migrants have noticeably improved over time in all cities and groups. For an efficient integration of immigrants, policy has to avoid the deficits of the past and has to allow future immigrants to move into appropriate dwellings as soon as possible after settlement in the country of destination. Then, our results make clear that a sizable group of immigrants in all cities live in a congested housing situation. It goes without saying that it concerns predominantly families with numerous children. As the chances of the next generation are involved, local and national policy makers should all the more give priority to an effective housing policy which facilitates a sufficient number of sized and affordable dwellings for the groups involved.

If social integration is to be promoted, especially in those countries where immigrants do not speak local majority languages, efforts should be directed at the provision of language learning opportunities. Among the groups that are not sufficiently able to communicate in the local language are often the elderly and women. They deserve special attention as their social integration is often rather poor.

Changes over time seem to be quite frequent in all countries and groups and are probably linked to the life-cycle of migrants. After a steady increase in the initial phases of sojourn, there regularly seems to be a decrease in the age span above 60 years. This however needs not be anything to worry about as it coincides with the retreat from the labour market. It rather shows that jobs are important for social integration and underline the necessity to undertake any effort to incorporate the offspring of first generation migrants into the national labour markets. Jobs often provide a field of interethnic interaction. For some groups it has been shown that the number of years a person has spent in employment is a predictor of the extent of interethnic friendships.

Fears that friendships among immigrants and immigrant institutions restrict social participation in the encompassing society are not warranted. The opposite has been shown: Persons with an active integration into migrant social life are better integrated into the receiving society than those with few ties with co-migrants. Against the background of these findings, political considerations of curbing down collective migrant activities to stimulate participation in formal and informal networks of the receiving society seem ill-founded.

These issues are instances of how an understanding of the policy impact on the life course and wellbeing of immigrants can be deepened by using the LIMITS dataset. In this regard, more benefits are to be expected with further analyses on the LIMITS data, for instance in terms of improved knowledge on how the quality of life of immigrants is affected by socio-economic factors at the macro-, meso- and micro-level over time. Changes in trends regarding life courses of immigrants can, and will be uncovered and linked to the specific socio-political and economic context of the respective host societies, with ample turnover for future policy development.

Supplementary to existing cross-national comparisons of legal frameworks and economic contexts relating to immigrants and ethnic minorities between different European countries, this study provides empirical data as yet lacking in this area. The analysis of the empirical findings will serve as a knowledge base for future policy development, especially in the domain of the labour market, residence, migration and naturalisation regulations, as the above presented policy implications make clear.

Additionally, two more points have to be stressed as regards the transferability of the project results. Firstly, the LIMITS project offers a model for countries not included in the

survey, as for instance most of the new member states and candidate countries. Those countries, where immigration is often a more recent phenomenon, are offered the possibility of learning from experiences which the countries involved in LIMITS have gone through and particularly from the effects of their policy measures on the life courses of immigrants. Secondly, the results present a framework for assessing planned and future policy measures towards other groups in the countries under study, particularly on those immigrants who arrived more recently, over the past decade.

Lastly, LIMITS offers a model to encourage further research in other European countries as well as other cities in the same countries, among different immigrant groups. For this purpose, and in order to enable comparisons with the analysed groups, the entire database and its description will be made available to fellow researchers. Guidance for any further research will be offered, regarding the modelling strategies that are most likely to yield significant results.

On a methodological level, the research tools developed in this study will be further discussed and disseminated in order to encourage and facilitate similar research in countries or cities and among immigrant groups not represented in LIMITS. Safeguarded assessment of the Optimal Matching tool and the freeware TDA for carrying out sequence analysis as well as the possible fields of application of event history analysis for pre- and post-migration phases will be offered.

5 Dissemination of results

LIMITS' strategy for dissemination during the life time of the project is stipulated in the work plan, which contains two deliverables concerning the presentation and propagation of the project, its aims and its first results. D10 marks the requirement that the consortium presents its first results of the project at a Metropolis conference. D13 relates to the commitment of each partner to organise two national workshops, and the obligation of the consortium to present the project at an EU-wide workshop. Hereunder, all dissemination activities are recorded in a table, distinguishing between those that have been rounded off during the project period, and those that are foreseen by individual partners after the completion of LIMITS. Among those that have been realised, we discern between international and national dissemination activities. The consortium has aimed to be considerate towards whom the activities will be presented, and has tried to give equal attention to the scientific community and the forum of policy makers and practitioners.

| | | | |
|--|---|-------------------|-----------------------|
| Website | www.limits-net.org Continually updated | ZSI | Oct 2003 |
| Flyer | 750 copies available at LIMITS website | ZSI | Apr 2003 Sept 2003 |
| Presentations at international conferences and workshops | | | |
| Presentation at the Metropolis conference, Vienna <i>LIMITS – Structure and goals of the project</i> (power point pres.) | | ZSI | Sept 2003 |
| Presentation at the Conference "Ethnic Minorities in Science and Higher Education" at the Inter-University Centre, Dubrovnik <i>LIMITS – Structure and goals of the project</i> (power point pres.) | | ZSI | Oct 15-16 2004 |
| Presentation at the IMISCOE-workshop 'Housing and Spatial Segregation', CEG, Lisbon <i>LIMITS – 1st generation immigrants in six European cities; project goals and some indicative national results</i> (short paper) | | IMES | Apr 28-29 2005 |
| Presentation at the Metropolis conference, Toronto <i>Immigrants and Ethnic Minorities in European Cities. Evidence and Experiences from a Comparative Life-Course Study</i> (power point pres. & paper) | | ZSI R-U Bochum | Oct 17-21 2005 |
| National presentations and workshops | | | |
| Workshop at the biannual conference of the Austrian Society of Sociology, University of Vienna, organised for the scientific community <i>Migration in European Immigration Societies</i> | | ZSI | Sept 23 2005 |
| Workshop together with the Vienna Employee Promotion Fund, WAFF, Vienna, organised for policy makers and practitioners <i>Integration of Migrants in the Viennese Employment Market</i> | | ZSI | Oct 13 2005 |
| Presentation at the workshop "Bildungsbenachteiligung und Migration – in Österreich und im internationalen Vergleich", organised by the Commission of Migration- and Integration Research, Austrian Academy of Science <i>Intergenerational mobility of Serbian and Turkish Migrants in Vienna with regard to education – Research results of the EU-Project LIMITS</i> | | ZSI | Dec 6 2005 |
| Workshop LIMITS project, Rotterdam, Rotterdams Historisch Museum, organised for policy makers and practitioners <i>The LIMITS project: promises of transferability and extension</i> | | IMES | Feb 19 2004 |
| Meeting with lecture and discussion at IMES, University of Amsterdam, organised for the scientific community <i>LIMITS - First results of the Amsterdam data</i> | | IMES | Sept 23 2005 |
| Workshop LIMITS project 'First Generation Migrants in Five European Countries' at the University of Bielefeld, organised for the scientific community. 1) <i>Changes Over Time in Living Conditions of First Generation Migrants</i> 2) <i>The Social Integration of First Generation Migrants</i> | | UniBi | March 13 2006 |
| Workshop 'First Generation Migrants in Five European Countries' at the University of Bielefeld, organised for policy makers and practitioners. <i>First Generation Migrants in Five European Countries</i> | | UniBi | March 15 2006 |
| Presentation at the Workshop City and Migration of the Urban and Regional Sociology Section (German Society for Sociology), University of Göttingen, <i>Dwellings of Migrants</i> | | UniBi | March 24 2006 |
| Presentation at the VIII Luso-Afro-Brasilian Congress of Social Sciences, Coimbra, "The Social Question in the New Millenium" <i>Two ways of social integration: extensive and comparative analysis of socio-professional trajectories of Cape Verdian and Hindus immigrants.</i> | | ISCTE | Sept 18 2004 |
| Additional academic work completed | | | |
| MA-thesis Karin Schaake (Universiteit Utrecht) <i>Ter Sprake: Nederlandse Taalbeheersing en Inkomen Onder Marokkaanse en Turkse Migranten</i> (<i>There is Talk... Second Language Competence and Income. The Case of Moroccan and Turkish Immigrants</i>) Based on an analysis of the Amsterdam LIMITS dataset | | IMES | Juli 1 2005 |
| BA-thesis Kris Noam (Universiteit van Amsterdam) | | IMES | Aug 1 |

| | | |
|--|---------------|-------------|
| <i>The Move to Europe. Female Family Formation and Human Capital</i> Based on an analysis of the LIMITS dataset | | 2006 |
| Scientific article by Fernando Machado and Maria Abranches (ISCTE) in <i>Sociologia, Problemas e Práticas</i> 48 (2005) 'Limited paths to social integration: socio-occupational trajectories of Cape-Verdeans and Hindus in Portugal' Abstract: http://sociologiapp.iscte.pt/fichaartigo.jsp?pkid=514 | ISCTE | 2005 |
| Dissemination activities foreseen in the near future: Publications in peer-reviewed journals (working titles) | | |
| Intergenerational educational mobility of Migrants in Vienna | ZSI | |
| Integration of first generation Migrants in Vienna: an Illusion? A Longitudinal Perspective of Migrants' Integration Trajectories | ZSI | |
| Economic Opportunities or Colonial Patrimony? The Pre-Migration Experience and Post-Migration Life Course of Capeverdians in Two European Cities. | IMES ISCTE | Dec 2006 |
| Trans-National Family Formation and Family Reunification. Effects on Intra- and Intergenerational Mobility in the Destination Society | IMES | Dec 2006 |

6 Acknowledgements and Bibliography

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Although the final report is a common achievement, its different chapters represent the explicit contributions of different partners. Chapter 3 is a summary of the specific contributions of the respective partners. Flip Lindo and Aufa Doarest (IMES, University of Amsterdam) wrote the part about pre-migration influences; the sub-chapter on the labour market integration was contributed by Ulrich Poetter (Ruhr-University, Bochum), Rossalina Latcheva (Centre for Social Innovation, Vienna) and Fernando Machado (ISCTE, Lisbon); Anja Stichs and Kurt Salentin from the Institute for Interdisciplinary Research on Conflict and Violence (University of Bielefeld) wrote the sub-chapters about housing and social integration respectively. The part on education, which is to be found in Annex B, was written by Ali Najib and Tsegaye Tegenu (Uppsala University).

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ANNEX A

Appendix 1

Table 1a: City and group by attained level of education father

| men & women | Bielefeld | | Vienna | | Lisbon | | Amsterd | | Rotterd | |
|----------------|-----------|-------|----------|-------|------------------|--------|-----------|-------|------------------|--|
| | Serbians | Turks | Serbians | Turks | Cape Verdians | Hindus | Moroccans | Turks | Cape Verdians | |
| | abs | | | | | | | | | |
| 1 | 138 | 162 | 85 | 114 | 136 | 66 | 239 | 169 | 131 | |
| 2 | 100 | 116 | 146 | 139 | 110 | 188 | 21 | 106 | 121 | |
| 3 | 42 | 11 | 47 | 28 | 16 | 25 | 13 | 11 | 28 | |
| 4 | 7 | 7 | 18 | 10 | 5 | 6 | 1 | 18 | 8 | |
| Total | 287 | 296 | 296 | 291 | 267 | 285 | 274 | 304 | 288 | |
| | In % | | | | | | | | | |
| 1 | 48,1 | 54,7 | 28,7 | 39,2 | 50,9 | 23,2 | 87,2 | 55,6 | 45,5 | |
| 2 | 34,8 | 39,2 | 49,3 | 47,8 | 41,2 | 66,0 | 7,7 | 34,9 | 42,0 | |
| 3 | 14,6 | 3,7 | 15,9 | 9,6 | 6,0 | 8,8 | 4,7 | 3,6 | 9,7 | |
| 4 | 2,4 | 2,4 | 6,1 | 3,4 | 1,9 | 2,1 | ,4 | 5,9 | 2,8 | |
| Total | 100,0 | 100,0 | 100,0 | 100,0 | 100,0 | 100,0 | 100,0 | 100,0 | 100,0 | |

Table 1b: City and group by attained level of education father

| men | Bielefeld | | Vienna | | Lisbon | | Amsterdam | | Rotterdam | |
|-------|-----------|-------|----------|-------|------------------|--------|-----------|-------|------------------|--|
| | Serbians | Turks | Serbians | Turks | Cape Verdians | Hindus | Moroccans | Turks | Cape Verdians | |
| | abs | | | | | | | | | |
| 1 | 67 | 73 | 43 | 70 | 69 | 31 | 134 | 67 | 69 | |
| 2 | 59 | 62 | 88 | 82 | 55 | 97 | 12 | 48 | 70 | |
| 3 | 22 | 5 | 23 | 18 | 6 | 15 | 5 | 6 | 16 | |
| 4 | 5 | 4 | 9 | 7 | 4 | 2 | | 9 | 2 | |
| Total | 153 | 144 | 163 | 177 | 134 | 145 | 151 | 130 | 157 | |
| | In % | | | | | | | | | |
| 1 | 43,8 | 50,7 | 26,4 | 39,5 | 51,5 | 21,4 | 88,7 | 51,5 | 43,9 | |
| 2 | 38,6 | 43,1 | 54,0 | 46,3 | 41,0 | 66,9 | 7,9 | 36,9 | 44,6 | |
| 3 | 14,4 | 3,5 | 14,1 | 10,2 | 4,5 | 10,3 | 3,3 | 4,6 | 10,2 | |
| 4 | 3,3 | 2,8 | 5,5 | 4,0 | 3,0 | 1,4 | | 6,9 | 1,3 | |
| Total | 100,0 | 100,0 | 100,0 | 100,0 | 100,0 | 100,0 | 100,0 | 100,0 | 100,0 | |

Table 1c: City and group by attained level of education father

| women | Bielefeld | | Vienna | | Lisbon | | Amsterdam | | Rotterdam | |
|-------|-----------|-------|----------|-------|------------------|--------|-----------|-------|------------------|--|
| | Serbians | Turks | Serbians | Turks | Cape Verdians | Hindus | Moroccans | Turks | Cape Verdians | |
| | abs | | | | | | | | | |
| 1 | 71 | 89 | 42 | 44 | 67 | 35 | 105 | 102 | 62 | |
| 2 | 41 | 54 | 58 | 57 | 55 | 91 | 9 | 58 | 51 | |
| 3 | 20 | 6 | 24 | 10 | 10 | 10 | 8 | 5 | 12 | |
| 4 | 2 | 3 | 9 | 3 | 1 | 4 | 1 | 9 | 6 | |
| Total | 134 | 152 | 133 | 114 | 133 | 140 | 123 | 174 | 131 | |
| | In % | | | | | | | | | |
| 1 | 53,0 | 58,6 | 31,6 | 38,6 | 50,4 | 25,0 | 85,4 | 58,6 | 47,3 | |
| 2 | 30,6 | 35,5 | 43,6 | 50,0 | 41,4 | 65,0 | 7,3 | 33,3 | 38,9 | |
| 3 | 14,9 | 3,9 | 18,0 | 8,8 | 7,5 | 7,1 | 6,5 | 2,9 | 9,2 | |
| 4 | 1,5 | 2,0 | 6,8 | 2,6 | ,8 | 2,9 | ,8 | 5,2 | 4,6 | |
| Total | 100,0 | 100,0 | 100,0 | 100,0 | 100,0 | 100,0 | 100,0 | 100,0 | 100,0 | |

Table 2a: City and group by attained level of education mother

| men & women | Bielefeld | | Vienna | | Lisbon | | Amsterdam | | Rotterdam | |
|----------------|-----------|-------|----------|-------|------------------|--------|-----------|-------|------------------|--|
| | Serbians | Turks | Serbians | Turks | Cape Verdians | Hindus | Moroccans | Turks | Cape Verdians | |
| | abs | | | | | | | | | |
| 1 | 189 | 243 | 152 | 214 | 208 | 144 | 263 | 253 | 176 | |
| 2 | 92 | 49 | 113 | 66 | 70 | 131 | 16 | 53 | 89 | |
| 3 | 14 | 2 | 27 | 7 | 2 | 15 | 2 | 3 | 21 | |
| 4 | 3 | 3 | 7 | 5 | 5 | 1 | 1 | 1 | 1 | |
| Total | 298 | 297 | 299 | 292 | 285 | 290 | 282 | 310 | 287 | |
| | In % | | | | | | | | | |
| 1 | 63,4 | 81,8 | 50,8 | 73,3 | 73,0 | 49,7 | 93,3 | 81,6 | 61,3 | |
| 2 | 30,9 | 16,5 | 37,8 | 22,6 | 24,6 | 45,2 | 5,7 | 17,1 | 31,0 | |
| 3 | 4,7 | ,7 | 9,0 | 2,4 | ,7 | 5,2 | ,7 | 1,0 | 7,3 | |
| 4 | 1,0 | 1,0 | 2,3 | 1,7 | 1,8 | ,4 | ,3 | ,3 | ,3 | |
| Total | 100,0 | 100,0 | 100,0 | 100,0 | 100,0 | 100,0 | 100,0 | 100,0 | 100,0 | |

Table 2b: City and group by attained level of education mother

| men | Bielefeld | | Vienna | | Lisbon | | Amsterdam | | Rotterdam | |
|-------|-----------|-------|----------|-------|------------------|--------|-----------|-------|------------------|--|
| | Serbians | Turks | Serbians | Turks | Cape Verdians | Hindus | Moroccans | Turks | Cape Verdians | |
| | abs | | | | | | | | | |
| 1 | 99 | 113 | 74 | 129 | 106 | 65 | 142 | 109 | 88 | |
| 2 | 50 | 29 | 74 | 38 | 36 | 72 | 10 | 22 | 57 | |
| 3 | 8 | 1 | 11 | 4 | 1 | 8 | | | 9 | |
| 4 | 2 | 1 | 4 | 5 | 3 | | | 1 | | |
| Total | 159 | 144 | 163 | 176 | 146 | 145 | 152 | 132 | 154 | |
| | In % | | | | | | | | | |
| 1 | 62,3 | 78,5 | 45,4 | 73,3 | 72,6 | 44,8 | 93,4 | 82,6 | 57,1 | |
| 2 | 31,4 | 20,1 | 45,4 | 21,6 | 24,7 | 49,7 | 6,6 | 16,7 | 37,0 | |
| 3 | 5,0 | ,7 | 6,7 | 2,3 | ,7 | 5,5 | | | 5,8 | |
| 4 | 1,3 | ,7 | 2,5 | 2,8 | 2,1 | | | ,8 | | |
| Total | 100,0 | 100,0 | 100,0 | 100,0 | 100,0 | 100,0 | 100,0 | 100,0 | 100,0 | |

Table 2c: City and group by attained level of education mother

| women | Bielefeld | | Vienna | | Lisbon | | Amsterdam | | Rotterdam | |
|-------|-----------|-------|----------|-------|------------------|--------|-----------|-------|------------------|--|
| | Serbians | Turks | Serbians | Turks | Cape Verdians | Hindus | Moroccans | Turks | Cape Verdians | |
| | abs | | | | | | | | | |
| 1 | 90 | 130 | 78 | 85 | 102 | 79 | 121 | 144 | 88 | |
| 2 | 42 | 20 | 39 | 28 | 34 | 59 | 6 | 31 | 32 | |
| 3 | 6 | 1 | 16 | 3 | 1 | 7 | 2 | 3 | 12 | |
| 4 | 1 | 2 | 3 | | 2 | | 1 | | 1 | |
| Total | 139 | 153 | 136 | 116 | 139 | 145 | 130 | 178 | 133 | |
| | In % | | | | | | | | | |
| 1 | 64,7 | 85,0 | 57,4 | 73,3 | 73,4 | 54,5 | 93,1 | 80,9 | 66,2 | |
| 2 | 30,2 | 13,1 | 28,7 | 24,1 | 24,5 | 40,7 | 4,6 | 17,4 | 24,1 | |
| 3 | 4,3 | ,7 | 11,8 | 2,6 | ,7 | 4,8 | 1,5 | 1,7 | 9,0 | |
| 4 | ,7 | 1,3 | 2,2 | | 1,4 | | ,8 | | ,8 | |
| Total | 100,0 | 100,0 | 100,0 | 100,0 | 100,0 | 100,0 | 100,0 | 100,0 | 100,0 | |

Table 3a: City and group by level of education attained in country of origin, respondents 18 years or older on arrival in immigration country

| Men & women | Bielefeld | | Vienna | | Stockholm | | Lisbon | | Amsterdam | | Rotterdam Cape Verdians | |
|-------------|-----------|-------|----------|-------|-----------|-------|---------------|--------|-----------|-------|-------------------------------|--|
| | Serbians | Turks | Serbians | Turks | Moroccans | Turks | Cape Verdians | Hindus | Moroccans | Turks | Verdians | |
| | abs | | | | | | | | | | | |
| 1 | 20 | 26 | 25 | 4 | 3 | | 16 | 9 | 150 | 53 | 29 | |
| 2 | 124 | 83 | 98 | 113 | 109 | 79 | 129 | 121 | 30 | 104 | 101 | |
| 3 | 97 | 25 | 104 | 63 | 95 | 97 | 40 | 94 | 27 | 23 | 64 | |
| 4 | 15 | 42 | 22 | 32 | 31 | 49 | 1 | 10 | 9 | 25 | 9 | |
| Total | 256 | 176 | 249 | 212 | 238 | 225 | 186 | 234 | 216 | 205 | 203 | |
| | In % | | | | | | | | | | | |
| 1 | 7,8 | 14,8 | 10,0 | 1,9 | 1,3 | | 8,6 | 3,8 | 69,4 | 25,9 | 14,3 | |
| 2 | 48,4 | 47,2 | 39,4 | 53,3 | 45,8 | 35,1 | 69,4 | 51,7 | 13,9 | 50,7 | 49,8 | |
| 3 | 37,9 | 14,2 | 41,8 | 29,7 | 39,9 | 43,1 | 21,5 | 40,2 | 12,5 | 11,2 | 31,5 | |
| 4 | 5,9 | 23,9 | 8,8 | 15,1 | 13,0 | 21,8 | ,5 | 4,3 | 4,2 | 12,2 | 4,4 | |
| Total | 100,0 | 100,0 | 100,0 | 100,0 | 100,0 | 100,0 | 100,0 | 100,0 | 100,0 | 100,0 | 100,0 | |
| men | In % | | | | | | | | | | | |
| 1 | 5,7 | 5,1 | 7,1 | ,7 | 1,7 | | 5,3 | ,8 | 67,5 | 14,6 | 13,3 | |
| 2 | 41,4 | 51,5 | 34,3 | 44,4 | 44,2 | 31,8 | 69,1 | 45,5 | 14,2 | 48,8 | 52,4 | |
| 3 | 45,0 | 14,1 | 50,0 | 37,0 | 41,4 | 41,9 | 25,5 | 49,6 | 14,2 | 18,3 | 31,4 | |
| 4 | 7,9 | 29,3 | 8,6 | 17,8 | 12,7 | 26,4 | | 4,1 | 4,2 | 18,3 | 2,9 | |
| Total | 100,0 | 100,0 | 100,0 | 100,0 | 100,0 | 100,0 | 100,0 | 100,0 | 100,0 | 100,0 | 100,0 | |
| women | In % | | | | | | | | | | | |
| 1 | 10,3 | 27,3 | 13,8 | 3,9 | | | 12,0 | 7,1 | 71,9 | 33,3 | 15,3 | |
| 2 | 56,9 | 41,6 | 45,9 | 68,8 | 50,9 | 41,6 | 69,6 | 58,4 | 13,5 | 52,0 | 46,9 | |
| 3 | 29,3 | 14,3 | 31,2 | 16,9 | 35,1 | 45,5 | 17,4 | 30,1 | 10,4 | 6,5 | 31,6 | |
| 4 | 3,4 | 16,9 | 9,2 | 10,4 | 14,0 | 13,0 | 1,1 | 4,4 | 4,2 | 8,1 | 6,1 | |
| Total | 100,0 | 100,0 | 100,0 | 100,0 | 100,0 | 100,0 | 100,0 | 100,0 | 100,0 | 100,0 | 100,0 | |

Table 3b: City and group by level of education attained in country of origin, respondents 18 years or older on arrival in immigration country

| men | Bielefeld | | Vienna | | Stockholm | | Lisbon | | Amsterdam | | Rotterdam Cape Verdians | |
|-------|-----------|-------|----------|-------|-----------|-------|---------------|--------|-----------|-------|-------------------------------|--|
| | Serbians | Turks | Serbians | Turks | Moroccans | Turks | Cape Verdians | Hindus | Moroccans | Turks | Cape Verdians | |
| | abs | | | | | | | | | | | |
| 1 | 8 | 5 | 10 | 1 | 3 | | 5 | 1 | 81 | 12 | 14 | |
| 2 | 58 | 51 | 48 | 60 | 80 | 47 | 65 | 55 | 17 | 40 | 55 | |
| 3 | 63 | 14 | 70 | 50 | 75 | 62 | 24 | 60 | 17 | 15 | 33 | |
| 4 | 11 | 29 | 12 | 24 | 23 | 39 | | 5 | 5 | 15 | 3 | |
| Total | 140 | 99 | 140 | 135 | 181 | 148 | 94 | 121 | 120 | 82 | 105 | |
| | In % | | | | | | | | | | | |
| 1 | 5,7 | 5,1 | 7,1 | ,7 | 1,7 | | 5,3 | ,8 | 67,5 | 14,6 | 13,3 | |
| 2 | 41,4 | 51,5 | 34,3 | 44,4 | 44,2 | 31,8 | 69,1 | 45,5 | 14,2 | 48,8 | 52,4 | |
| 3 | 45,0 | 14,1 | 50,0 | 37,0 | 41,4 | 41,9 | 25,5 | 49,6 | 14,2 | 18,3 | 31,4 | |
| 4 | 7,9 | 29,3 | 8,6 | 17,8 | 12,7 | 26,4 | | 4,1 | 4,2 | 18,3 | 2,9 | |
| Total | 100,0 | 100,0 | 100,0 | 100,0 | 100,0 | 100,0 | 100,0 | 100,0 | 100,0 | 100,0 | 100,0 | |

Table 3c: City and group by level of education attained in country of origin, respondents 18 years or older on arrival in immigration country

| women | Bielefeld | | Vienna | | Stockholm | | Lisbon | | Amsterdam | | Rotterdam |
|-------|-----------|-------|----------|-------|-----------|-------|---------------|--------|-----------|-------|---------------|
| | Serbians | Turks | Serbians | Turks | Moroccans | Turks | Cape Verdians | Hindus | Moroccans | Turks | Cape Verdians |
| | abs | | | | | | | | | | |
| 1 | 12 | 21 | 15 | 3 | | | 11 | 8 | 69 | 41 | 15 |
| 2 | 66 | 32 | 50 | 53 | 29 | 32 | 64 | 66 | 13 | 64 | 46 |
| 3 | 34 | 11 | 34 | 13 | 20 | 35 | 16 | 34 | 10 | 8 | 31 |
| 4 | 4 | 13 | 10 | 8 | 8 | 10 | 1 | 5 | 4 | 10 | 6 |
| Total | 116 | 77 | 109 | 77 | 57 | 77 | 92 | 113 | 96 | 123 | 98 |
| | In % | | | | | | | | | | |
| 1 | 10,3 | 27,3 | 13,8 | 3,9 | | | 12,0 | 7,1 | 71,9 | 33,3 | 15,3 |
| 2 | 56,9 | 41,6 | 45,9 | 68,8 | 50,9 | 41,6 | 69,6 | 58,4 | 13,5 | 52,0 | 46,9 |
| 3 | 29,3 | 14,3 | 31,2 | 16,9 | 35,1 | 45,5 | 17,4 | 30,1 | 10,4 | 6,5 | 31,6 |
| 4 | 3,4 | 16,9 | 9,2 | 10,4 | 14,0 | 13,0 | 1,1 | 4,4 | 4,2 | 8,1 | 6,1 |
| Total | 100,0 | 100,0 | 100,0 | 100,0 | 100,0 | 100,0 | 100,0 | 100,0 | 100,0 | 100,0 | 100,0 |

Table 4a: Total number of respondents (men and women) arriving in the destination country at the age of 18 or older:

| Men & women | Bielefeld | | Vienna | | Lisbon | | Amsterdam | | Rotterdam | |
|-------------|-----------|-------|----------|-------|---------------|--------|-----------|-------|---------------|--|
| | Serbians | Turks | Serbians | Turks | Cape Verdians | Hindus | Moroccans | Turks | Cape Verdians | |
| 100% | 256 | 176 | 249 | 212 | 186 | 234 | 216 | 205 | 203 | |

Those from this group who attained working experience prior to leaving their country of origin:

| | | | | | | | | | |
|------|------|------|------|------|------|------|------|------|------|
| abs | 158 | 126 | 130 | 129 | 125 | 124 | 94 | 69 | 113 |
| In % | 61,7 | 71,6 | 52,2 | 60,8 | 67,2 | 53,0 | 43,5 | 33,7 | 55,7 |

Table 4b: Total number of men arriving in the destination country at the age of 18 or older:

| men | Bielefeld | | Vienna | | Lisbon | | Amsterdam | | Rotterdam | |
|------|-----------|-------|----------|-------|---------------|--------|-----------|-------|---------------|--|
| | Serbians | Turks | Serbians | Turks | Cape Verdians | Hindus | Moroccans | Turks | Cape Verdians | |
| 100% | 140 | 99 | 140 | 135 | 94 | 121 | 120 | 82 | 105 | |

Those from this group who attained working experience prior to leaving their country of origin:

| | | | | | | | | | |
|------|------|------|------|------|------|------|------|------|------|
| abs | 104 | 82 | 82 | 113 | 72 | 102 | 84 | 58 | 63 |
| In % | 74,3 | 82,8 | 58,6 | 83,7 | 76,6 | 84,3 | 70,0 | 70,7 | 60,0 |

Table 4c: Total number of women arriving in the destination country at the age of 18 or older:

| women | Bielefeld | | Vienna | | Lisbon | | Amsterdam | | Rotterdam | |
|-------|-----------|-------|----------|-------|---------------|--------|-----------|-------|---------------|--|
| | Serbians | Turks | Serbians | Turks | Cape Verdians | Hindus | Moroccans | Turks | Cape Verdians | |
| 100% | 116 | 77 | 109 | 77 | 92 | 113 | 96 | 123 | 98 | |

Those from this group who attained working experience prior to leaving their country of origin:

| | | | | | | | | | |
|------|------|------|------|------|------|------|------|-----|------|
| abs | 54 | 44 | 48 | 16 | 53 | 22 | 10 | 11 | 50 |
| In % | 46,6 | 57,1 | 44,0 | 20,8 | 57,6 | 19,5 | 10,4 | 8,9 | 51,0 |

Table 5a: City and group by occupational level of respondent acquired in country of origin, respondents 18 years or older on arrival in immigration country

| Men & women | Bielefeld | | Vienna | | Lisbon | | Amsterdam | | Rotterdam | |
|-------------|-----------|-------|----------|-------|---------------|--------|-----------|-------|---------------|-------|
| | Serbians | Turks | Serbians | Turks | Cape Verdians | Hindus | Moroccans | Turks | Cape Verdians | |
| | abs | | | | | | | | | |
| | 1 | 1 | 3 | 4 | 5 | 1 | 3 | 1 | 1 | 3 |
| | 2 | 5 | 1 | 6 | 2 | 7 | 9 | 1 | 1 | 10 |
| | 3 | 11 | 13 | 22 | 16 | 39 | 88 | 3 | 11 | 10 |
| | 4 | 92 | 54 | 45 | 56 | 51 | 19 | 5 | 18 | 9 |
| | 5 | 48 | 49 | 53 | 50 | 27 | 5 | 83 | 38 | 80 |
| | 6 | 1 | 6 | | | | | 1 | | 1 |
| Total | | 158 | 126 | 130 | 129 | 125 | 124 | 94 | 69 | 113 |
| | In % | | | | | | | | | |
| | 1 | ,6 | 2,4 | 3,1 | 3,9 | ,8 | 2,4 | 1,1 | 1,4 | 2,7 |
| | 2 | 3,2 | ,8 | 4,6 | 1,6 | 5,6 | 7,3 | 1,1 | 1,4 | 8,8 |
| | 3 | 7,0 | 10,3 | 16,9 | 12,4 | 31,2 | 71,0 | 3,2 | 15,9 | 8,8 |
| | 4 | 58,2 | 42,9 | 34,6 | 43,4 | 40,8 | 15,3 | 5,3 | 26,1 | 8,0 |
| | 5 | 30,4 | 38,9 | 40,8 | 38,8 | 21,6 | 4,0 | 88,3 | 55,1 | 70,8 |
| | 6 | ,6 | 4,8 | | | | | 1,1 | | ,9 |
| Total men | | 100,0 | 100,0 | 100,0 | 100,0 | 100,0 | 100,0 | 100,0 | 100,0 | 100,0 |
| | In % | | | | | | | | | |
| | 1 | 1,0 | 2,4 | 2,4 | 2,7 | 1,4 | 2,9 | 1,2 | | 1,6 |
| | 2 | 3,8 | | 2,4 | 1,8 | 4,2 | 7,8 | | 1,7 | 3,2 |
| | 3 | 4,8 | 8,5 | 13,4 | 10,6 | 18,1 | 68,6 | 3,6 | 12,1 | 6,3 |
| | 4 | 66,3 | 45,1 | 42,7 | 43,4 | 52,8 | 16,7 | 6,0 | 27,6 | 14,3 |
| | 5 | 23,1 | 36,6 | 39,0 | 41,6 | 23,6 | 3,9 | 88,1 | 58,6 | 73,0 |
| | 6 | 1,0 | 7,3 | | | | | 1,2 | | 1,6 |
| Total women | | 100,0 | 100,0 | 100,0 | 100,0 | 100,0 | 100,0 | 100,0 | 100,0 | 100,0 |
| | In % | | | | | | | | | |
| | 1 | | 2,3 | 4,2 | 12,5 | | | | 9,1 | 4,0 |
| | 2 | 1,9 | 2,3 | 8,3 | | 7,5 | 4,5 | 10,0 | | 16,0 |
| | 3 | 11,1 | 13,6 | 22,9 | 25,0 | 49,1 | 81,8 | | 36,4 | 12,0 |
| | 4 | 42,6 | 38,6 | 20,8 | 43,8 | 24,5 | 9,1 | | 18,2 | |
| | 5 | 44,4 | 43,2 | 43,8 | 18,8 | 18,9 | 4,5 | 90,0 | 36,4 | 68,0 |
| Total | | 100,0 | 100,0 | 100,0 | 100,0 | 100,0 | 100,0 | 100,0 | 100,0 | 100,0 |

Table 5b: City and group by occupational level of respondent acquired in country of origin, respondents 18 years or older on arrival in immigration country

| men | Bielefeld | | Vienna | | Lisbon Cape Verdians | Hindus | Amsterdam | | Rotterdam Cape Verdians | |
|-------|-----------|-------|----------|-------|----------------------------|--------|-----------|-------|-------------------------------|----------|
| | Serbians | Turks | Serbians | Turks | | | Moroccans | Turks | Turks | Verdians |
| | abs | | | | | | | | | |
| 1 | 1 | 2 | 2 | 3 | 1 | 3 | 1 | | | 1 |
| 2 | 4 | | 2 | 2 | 3 | 8 | | | 1 | 2 |
| 3 | 5 | 7 | 11 | 12 | 13 | 70 | 3 | 7 | 7 | 4 |
| 4 | 69 | 37 | 35 | 49 | 38 | 17 | 5 | 16 | 16 | 9 |
| 5 | 24 | 30 | 32 | 47 | 17 | 4 | 74 | 34 | 34 | 46 |
| 6 | 1 | 6 | | | | | 1 | | | 1 |
| Total | 104 | 82 | 82 | 113 | 72 | 102 | 84 | 58 | 58 | 63 |
| | In % | | | | | | | | | |
| 1 | 1,0 | 2,4 | 2,4 | 2,7 | 1,4 | 2,9 | 1,2 | | | 1,6 |
| 2 | 3,8 | | 2,4 | 1,8 | 4,2 | 7,8 | | | 1,7 | 3,2 |
| 3 | 4,8 | 8,5 | 13,4 | 10,6 | 18,1 | 68,6 | 3,6 | 12,1 | 12,1 | 6,3 |
| 4 | 66,3 | 45,1 | 42,7 | 43,4 | 52,8 | 16,7 | 6,0 | 27,6 | 27,6 | 14,3 |
| 5 | 23,1 | 36,6 | 39,0 | 41,6 | 23,6 | 3,9 | 88,1 | 58,6 | 58,6 | 73,0 |
| 6 | 1,0 | 7,3 | | | | | 1,2 | | | 1,6 |
| Total | 100,0 | 100,0 | 100,0 | 100,0 | 100,0 | 100,0 | 100,0 | 100,0 | 100,0 | 100,0 |

Table 5c: City and group by occupational level of respondent acquired in country of origin, respondents 18 years or older on arrival in immigration country

| women | Bielefeld | | Vienna | | Lisbon Cape Verdians | Hindus | Amsterdam | | Rotterdam Cape Verdians | |
|-------|-----------|-------|----------|-------|----------------------------|--------|-----------|-------|-------------------------------|----------|
| | Serbians | Turks | Serbians | Turks | | | Moroccans | Turks | Turks | Verdians |
| | abs | | | | | | | | | |
| 1 | | 1 | 2 | 2 | | | | | 1 | 2 |
| 2 | 1 | 1 | 4 | | 4 | 1 | 1 | | | 8 |
| 3 | 6 | 6 | 11 | 4 | 26 | 18 | | | 4 | 6 |
| 4 | 23 | 17 | 10 | 7 | 13 | 2 | | | 2 | |
| 5 | 24 | 19 | 21 | 3 | 10 | 1 | 9 | 4 | 4 | 34 |
| Total | 54 | 44 | 48 | 16 | 53 | 22 | 10 | 11 | 11 | 50 |
| | In % | | | | | | | | | |
| 1 | | 2,3 | 4,2 | 12,5 | | | | | 9,1 | 4,0 |
| 2 | 1,9 | 2,3 | 8,3 | | 7,5 | 4,5 | 10,0 | | | 16,0 |
| 3 | 11,1 | 13,6 | 22,9 | 25,0 | 49,1 | 81,8 | | | 36,4 | 12,0 |
| 4 | 42,6 | 38,6 | 20,8 | 43,8 | 24,5 | 9,1 | | | 18,2 | |
| 5 | 44,4 | 43,2 | 43,8 | 18,8 | 18,9 | 4,5 | 90,0 | 36,4 | 36,4 | 68,0 |
| Total | 100,0 | 100,0 | 100,0 | 100,0 | 100,0 | 100,0 | 100,0 | 100,0 | 100,0 | 100,0 |

Table 6a: Living environment in country of origin during main part of youth

| Men & women | Bielefeld | | Vienna | | Stockholm | | Lisbon | | Amsterdam | | Rotterdam | |
|-------------|-----------|-------|----------|-------|-----------|-------|---------------|--------|-----------|-------|---------------|-------|
| | Serbians | Turks | Serbians | Turks | Moroccans | Turks | Cape Verdians | Hindus | Moroccans | Turks | Cape Verdians | |
| | abs | | | | | | | | | | | |
| Total | 1 | 173 | 183 | 125 | 97 | 250 | 258 | 140 | 285 | 107 | 135 | 112 |
| | 2 | 123 | 97 | 150 | 62 | 50 | 42 | 150 | 10 | 177 | 181 | 189 |
| | Total | 296 | 280 | 275 | 159 | 300 | 300 | 290 | 295 | 284 | 316 | 301 |
| | In % | | | | | | | | | | | |
| Total | 1 | 58,4 | 65,4 | 45,5 | 61,0 | 83,3 | 86,0 | 48,3 | 96,6 | 37,7 | 42,7 | 37,2 |
| | 2 | 41,6 | 34,6 | 54,5 | 39,0 | 16,7 | 14,0 | 51,7 | 3,4 | 62,3 | 57,3 | 62,8 |
| | Total | 100,0 | 100,0 | 100,0 | 100,0 | 100,0 | 100,0 | 100,0 | 100,0 | 100,0 | 100,0 | 100,0 |
| | In % | | | | | | | | | | | |
| men | 1 | 57,0 | 66,2 | 38,6 | 70,7 | 83,8 | 86,9 | 49,0 | 96,7 | 38,6 | 48,5 | 29,0 |
| | 2 | 43,0 | 33,8 | 61,4 | 29,3 | 16,2 | 13,1 | 51,0 | 3,3 | 61,4 | 51,5 | 71,0 |
| | Total | 100,0 | 100,0 | 100,0 | 100,0 | 100,0 | 100,0 | 100,0 | 100,0 | 100,0 | 100,0 | 100,0 |
| | In % | | | | | | | | | | | |
| women | 1 | 60,1 | 64,6 | 54,1 | 52,4 | 82,1 | 84,8 | 47,5 | 96,6 | 36,6 | 38,3 | 46,8 |
| | 2 | 39,9 | 35,4 | 45,9 | 47,6 | 17,9 | 15,2 | 52,5 | 3,4 | 63,4 | 61,7 | 53,2 |
| | Total | 100,0 | 100,0 | 100,0 | 100,0 | 100,0 | 100,0 | 100,0 | 100,0 | 100,0 | 100,0 | 100,0 |

Table 6b: Living environment in country of origin during main part of youth

| Men | Bielefeld | | Vienna | | Stockholm | | Lisbon | | Amsterdam | | Rotterdam | |
|-------|-----------|-------|----------|-------|-----------|-------|---------------|--------|-----------|-------|---------------|-------|
| | Serbians | Turks | Serbians | Turks | Moroccans | Turks | Cape Verdians | Hindus | Moroccans | Turks | Cape Verdians | |
| | abs | | | | | | | | | | | |
| Total | 1 | 90 | 90 | 59 | 53 | 181 | 152 | 73 | 145 | 59 | 66 | 47 |
| | 2 | 68 | 46 | 94 | 22 | 35 | 23 | 76 | 5 | 94 | 70 | 115 |
| | Total | 158 | 136 | 153 | 75 | 216 | 175 | 149 | 150 | 153 | 136 | 162 |
| | In % | | | | | | | | | | | |
| Total | 1 | 57,0 | 66,2 | 38,6 | 70,7 | 83,8 | 86,9 | 49,0 | 96,7 | 38,6 | 48,5 | 29,0 |
| | 2 | 43,0 | 33,8 | 61,4 | 29,3 | 16,2 | 13,1 | 51,0 | 3,3 | 61,4 | 51,5 | 71,0 |
| | Total | 100,0 | 100,0 | 100,0 | 100,0 | 100,0 | 100,0 | 100,0 | 100,0 | 100,0 | 100,0 | 100,0 |

Table 6c: Living environment in country of origin during main part of youth

| women | Bielefeld | | Vienna | | Stockholm | | Lisbon | | Amsterdam | | Rotterdam | |
|-------|-----------|-------|----------|-------|-----------|-------|---------------|--------|-----------|-------|---------------|-------|
| | Serbians | Turks | Serbians | Turks | Moroccans | Turks | Cape Verdians | Hindus | Moroccans | Turks | Cape Verdians | |
| | abs | | | | | | | | | | | |
| Total | 1 | 83 | 93 | 66 | 44 | 69 | 106 | 67 | 140 | 48 | 69 | 65 |
| | 2 | 55 | 51 | 56 | 40 | 15 | 19 | 74 | 5 | 83 | 111 | 74 |
| | Total | 138 | 144 | 122 | 84 | 84 | 125 | 141 | 145 | 131 | 180 | 139 |
| | In % | | | | | | | | | | | |
| Total | 1 | 60,1 | 64,6 | 54,1 | 52,4 | 82,1 | 84,8 | 47,5 | 96,6 | 36,6 | 38,3 | 46,8 |
| | 2 | 39,9 | 35,4 | 45,9 | 47,6 | 17,9 | 15,2 | 52,5 | 3,4 | 63,4 | 61,7 | 53,2 |
| | Total | 100,0 | 100,0 | 100,0 | 100,0 | 100,0 | 100,0 | 100,0 | 100,0 | 100,0 | 100,0 | 100,0 |

Level of Occupation At Three Moments In The Post-Migration Life Course

Here, we will give the necessary information on our dependent variable, the level of occupation that is reached by our respondents at three moments in their post-migration life course, viz one year after arrival, at the middle of stay, and at the moment of the interview.

We will do this in a summary way, as information on economic activities in the destination country is treated more extensively elsewhere in this report. The data are displayed in tables 7a, b, c and 8a, b, c. For the present analysis it is important to point to the larger labour market participation of all groups at the middle moment compared to that of the last moment³⁰.

³⁰ The labour market participation at the middle moment is also larger compared to that of the first moment for all groups except for immigrants from Morocco and Turkey in Amsterdam.

Table 7a: City and group by occupational level of respondent in country of immigration, 1st moment (one year after arrival)

| 1 st M | Bielefeld | | Vienna | | Stockholm | | Lisbon | | Amsterdam | | Rotterdam |
|-------------------|-----------|-------|----------|-------|-----------|-------|---------------|--------|-----------|-------|---------------|
| | Serbians | Turks | Serbians | Turks | Moroccans | Turks | Cape Verdians | Hindus | Moroccans | Turks | Cape Verdians |
| | absolute | | | | | | | | | | |
| Not working | 85 | 171 | 69 | 135 | 145 | 205 | 85 | 137 | 145 | 156 | 110 |
| 1 | 1 | | | | 4 | 2 | 1 | | 1 | 3 | 5 |
| 2 | 5 | 1 | 2 | 1 | 20 | 21 | 6 | 7 | 6 | 2 | 7 |
| 3 | 10 | 1 | 13 | 7 | 42 | 38 | 31 | 105 | 4 | 11 | 12 |
| 4 | 90 | 23 | 39 | 52 | 10 | 3 | 64 | 21 | 12 | 19 | 16 |
| 5 | 110 | 105 | 177 | 106 | 79 | 31 | 113 | 30 | 116 | 125 | 151 |
| Total | 301 | 301 | 300 | 301 | 300 | 300 | 300 | 300 | 284 | 316 | 301 |
| | In % | | | | | | | | | | |
| Not working | 28,2 | 56,8 | 23,0 | 44,9 | 48,3 | 68,3 | 28,3 | 45,7 | 51,1 | 49,4 | 36,5 |
| 1 | ,3 | | | | 1,3 | ,7 | ,3 | | ,4 | ,9 | 1,7 |
| 2 | 1,7 | ,3 | ,7 | ,3 | 6,7 | 7,0 | 2,0 | 2,3 | 2,1 | ,6 | 2,3 |
| 3 | 3,3 | ,3 | 4,3 | 2,3 | 14,0 | 12,7 | 10,3 | 35,0 | 1,4 | 3,5 | 4,0 |
| 4 | 29,9 | 7,6 | 13,0 | 17,3 | 3,3 | 1,0 | 21,3 | 7,0 | 4,2 | 6,0 | 5,3 |
| 5 | 36,5 | 34,9 | 59,0 | 35,2 | 26,3 | 10,3 | 37,7 | 10,0 | 40,8 | 39,6 | 50,2 |
| Total | 100,0 | 100,0 | 100,0 | 100,0 | 100,0 | 100,0 | 100,0 | 100,0 | 100,0 | 100,0 | 100,0 |

1. Legislator/ senior government official
2. Technician/ professional
3. Clerk/ service worker/ salesperson, Low civil servant
4. Craftsman/ skilled worker
5. Elementary occupation/ labourer, Cleaning/washing

Table 7b: City and group by occupational level of respondent in country of immigration, 2nd moment (middle of stay)

| 2 nd M | Bielefeld | | Vienna | | Stockholm | | Lisbon | | Amsterdam | | Rotterdam |
|-------------------|-----------|-------|---------|-------|-----------|-------|---------------|--------|-----------|-------|---------------|
| | Serbian | Turks | Serbian | Turks | Moroccans | Turks | Cape Verdians | Hindus | Moroccans | Turks | Cape Verdians |
| | absolute | | | | | | | | | | |
| Not working | 67 | 120 | 49 | 82 | 29 | 78 | 72 | 111 | 170 | 195 | 42 |
| 1 | 6 | 3 | | | 6 | 7 | 1 | | 1 | 4 | 5 |
| 2 | 7 | 4 | 4 | 6 | 58 | 62 | 24 | 10 | 11 | 8 | 27 |
| 3 | 13 | 6 | 29 | 20 | 92 | 103 | 42 | 135 | 9 | 15 | 27 |
| 4 | 94 | 36 | 40 | 63 | 25 | 8 | 72 | 23 | 14 | 12 | 29 |
| 5 | 114 | 132 | 178 | 130 | 90 | 42 | 89 | 21 | 79 | 82 | 171 |
| Total | 301 | 301 | 300 | 301 | 300 | 300 | 300 | 300 | 284 | 316 | 301 |
| | In % | | | | | | | | | | |
| Not working | 22,3 | 39,9 | 16,3 | 27,2 | 9,7 | 26,0 | 24,0 | 37,0 | 59,9 | 61,7 | 14,0 |
| 1 | 2,0 | 1,0 | | | 2,0 | 2,3 | ,3 | | ,4 | 1,3 | 1,7 |
| 2 | 2,3 | 1,3 | 1,3 | 2,0 | 19,3 | 20,7 | 8,0 | 3,3 | 3,9 | 2,5 | 9,0 |
| 3 | 4,3 | 2,0 | 9,7 | 6,6 | 30,7 | 34,3 | 14,0 | 45,0 | 3,2 | 4,7 | 9,0 |
| 4 | 31,2 | 12,0 | 13,3 | 20,9 | 8,3 | 2,7 | 24,0 | 7,7 | 4,9 | 3,8 | 9,6 |
| 5 | 37,9 | 43,9 | 59,3 | 43,2 | 30,0 | 14,0 | 29,7 | 7,0 | 27,8 | 25,9 | 56,8 |
| Total | 100,0 | 100,0 | 100,0 | 100,0 | 100,0 | 100,0 | 100,0 | 100,0 | 100,0 | 100,0 | 100,0 |

1. Legislator/ senior government official
2. Technician/ professional
3. Clerk/ service worker/ salesperson, Low civil servant
4. Craftsman/ skilled worker
5. Elementary occupation/ labourer, Cleaning/washing

Table 7c: City and group by occupational level of respondent in country of immigration, 3rd moment (at the time of the interview)

| 3 rd M | Bielefeld | | Vienna | | Stockholm | | Lisbon | | Amsterdam | | Rotterdam |
|-------------------|-----------|-------|---------|-------|-----------|-------|---------------|--------|-----------|-------|---------------|
| | Serbian | Turks | Serbian | Turks | Moroccans | Turks | Cape Verdians | Hindus | Moroccans | Turks | Cape Verdians |
| | absolute | | | | | | | | | | |
| Not working | 152 | 193 | 122 | 160 | 82 | 103 | 105 | 111 | 204 | 230 | 72 |
| 1 | 5 | 3 | | | 10 | 15 | 1 | 1 | 2 | 2 | 7 |
| 2 | 2 | 5 | 5 | 7 | 72 | 78 | 27 | 10 | 12 | 9 | 42 |
| 3 | 10 | 7 | 32 | 16 | 71 | 81 | 35 | 139 | 7 | 13 | 28 |
| 4 | 59 | 22 | 20 | 30 | 12 | 1 | 60 | 16 | 9 | 7 | 31 |
| 5 | 73 | 71 | 121 | 88 | 53 | 22 | 72 | 23 | 50 | 55 | 121 |
| Total | 301 | 301 | 300 | 301 | 300 | 300 | 300 | 300 | 284 | 316 | 301 |
| | In % | | | | | | | | | | |
| Not working | 50,5 | 64,1 | 40,7 | 53,2 | 27,3 | 34,3 | 35,0 | 37,0 | 71,8 | 72,8 | 23,9 |
| 1 | 1,7 | 1,0 | | | 3,3 | 5,0 | ,3 | ,3 | ,7 | ,6 | 2,3 |
| 2 | ,7 | 1,7 | 1,7 | 2,3 | 24,0 | 26,0 | 9,0 | 3,3 | 4,2 | 2,8 | 14,0 |
| 3 | 3,3 | 2,3 | 10,7 | 5,3 | 23,7 | 27,0 | 11,7 | 46,3 | 2,5 | 4,1 | 9,3 |
| 4 | 19,6 | 7,3 | 6,7 | 10,0 | 4,0 | ,3 | 20,0 | 5,3 | 3,2 | 2,2 | 10,3 |
| 5 | 24,3 | 23,6 | 40,3 | 29,2 | 17,7 | 7,3 | 24,0 | 7,7 | 17,6 | 17,4 | 40,2 |
| Total | 100,0 | 100,0 | 100,0 | 100,0 | 100,0 | 100,0 | 100,0 | 100,0 | 100,0 | 100,0 | 100,0 |

1. Legislator/ senior government official
2. Technician/ professional
3. Clerk/ service worker/ salesperson, Low civil servant
4. Craftsman/ skilled worker
5. Elementary occupation/ labourer, Cleaning/washing

Table 8a: City and group by occupational level of respondent in country of immigration, 1st moment (one year after arrival), Respondents 18 years or older at the time of arrival

| | Bielefeld | | Vienna | | Stockholm | | Lisbon | | Amsterdam | | Rotterdam |
|-------------|-----------|-------|----------|-------|-----------|-------|---------------|--------|-----------|-------|---------------|
| | Serbiens | Turks | Serbiens | Turks | Moroccans | Turks | Cape Verdians | Hindus | Moroccans | Turks | Cape Verdians |
| | Count | Count | Count | Count | Count | Count | Count | Count | Count | Count | Count |
| Not working | 61 | 125 | 40 | 79 | 132 | 174 | 61 | 114 | 102 | 92 | 53 |
| 1 | | | | | 4 | 2 | 1 | | 1 | 1 | 5 |
| 2 | 5 | 1 | 2 | 1 | 19 | 15 | 3 | 4 | 2 | | 3 |
| 3 | 8 | 1 | 13 | 6 | 40 | 35 | 25 | 89 | 4 | 8 | 4 |
| 4 | 83 | 19 | 39 | 49 | 10 | 3 | 45 | 18 | 10 | 15 | 14 |
| 5 | 105 | 76 | 168 | 91 | 74 | 29 | 88 | 26 | 97 | 89 | 129 |
| Total | 262 | 222 | 262 | 226 | 279 | 258 | 223 | 251 | 216 | 205 | 208 |
| | In % | | | | | | | | | | |
| Not working | 23,3 | 56,3 | 15,3 | 35,0 | 47,3 | 67,4 | 27,4 | 45,4 | 47,2 | 44,9 | 25,5 |
| 1 | | | | | 1,4 | ,8 | ,4 | | ,5 | ,5 | 2,4 |
| 2 | 1,9 | ,5 | ,8 | ,4 | 6,8 | 5,8 | 1,3 | 1,6 | ,9 | | 1,4 |
| 3 | 3,1 | ,5 | 5,0 | 2,7 | 14,3 | 13,6 | 11,2 | 35,5 | 1,9 | 3,9 | 1,9 |
| 4 | 31,7 | 8,6 | 14,9 | 21,7 | 3,6 | 1,2 | 20,2 | 7,2 | 4,6 | 7,3 | 6,7 |
| 5 | 40,1 | 34,2 | 64,1 | 40,3 | 26,5 | 11,2 | 39,5 | 10,4 | 44,9 | 43,4 | 62,0 |
| Total | 100,0 | 100,0 | 100,0 | 100,0 | 100,0 | 100,0 | 100,0 | 100,0 | 100,0 | 100,0 | 100,0 |

1. Legislator/ senior government official
2. Technician/ professional
3. Clerk/ service worker/ salesperson, Low civil servant
4. Craftsman/ skilled worker
5. Elementary occupation/ labourer, Cleaning/washing

Table 8b: City and group by occupational level of respondent in country of immigration, 2nd moment (middle of stay). Respondents 18 years or older at the time of arrival

| | Bielefeld | | Vienna | | Stockholm | | Lisbon | Hindus | Amsterdam | Rotterdam | |
|-------------|-----------|-------|---------|-------|-----------|-------|---------------|--------|-----------|-----------|---------------|
| | Serbian | Turks | Serbian | Turks | Moroccans | Turks | Cape Verdians | | Moroccans | Turks | Cape Verdians |
| | Count | Count | Count | Count | Count | Count | Count | Count | Count | Count | Count |
| Not working | 58 | 92 | 40 | 59 | 26 | 70 | 60 | 98 | 135 | 134 | 21 |
| 1 | 3 | 1 | | | 6 | 5 | 1 | | | 1 | 5 |
| 2 | 6 | 4 | 2 | 2 | 54 | 50 | 16 | 5 | 3 | 4 | 15 |
| 3 | 10 | 3 | 25 | 14 | 88 | 86 | 33 | 112 | 5 | 9 | 11 |
| 4 | 81 | 22 | 38 | 52 | 24 | 8 | 47 | 18 | 10 | 6 | 16 |
| 5 | 104 | 100 | 157 | 99 | 81 | 39 | 66 | 18 | 63 | 51 | 140 |
| Total | 262 | 222 | 262 | 226 | 279 | 258 | 223 | 251 | 216 | 205 | 208 |
| | In % | | | | | | | | | | |
| Not working | 22,1 | 41,4 | 15,3 | 26,1 | 9,3 | 27,1 | 26,9 | 39,0 | 62,5 | 65,4 | 10,1 |
| 1 | 1,1 | ,5 | | | 2,2 | 1,9 | ,4 | | | ,5 | 2,4 |
| 2 | 2,3 | 1,8 | ,8 | ,9 | 19,4 | 19,4 | 7,2 | 2,0 | 1,4 | 2,0 | 7,2 |
| 3 | 3,8 | 1,4 | 9,5 | 6,2 | 31,5 | 33,3 | 14,8 | 44,6 | 2,3 | 4,4 | 5,3 |
| 4 | 30,9 | 9,9 | 14,5 | 23,0 | 8,6 | 3,1 | 21,1 | 7,2 | 4,6 | 2,9 | 7,7 |
| 5 | 39,7 | 45,0 | 59,9 | 43,8 | 29,0 | 15,1 | 29,6 | 7,2 | 29,2 | 24,9 | 67,3 |
| Total | 100,0 | 100,0 | 100,0 | 100,0 | 100,0 | 100,0 | 100,0 | 100,0 | 100,0 | 100,0 | 100,0 |

1. Legislator/ senior government official
2. Technician/ professional
3. Clerk/ service worker/ salesperson, Low civil servant
4. Craftsman/ skilled worker
5. Elementary occupation/ labourer, Cleaning/washing

Table 8c: City and group by occupational level of respondent in country of immigration, 3rd moment (at the time of the interview), Respondents 18 years or older at the time of arrival

| | Bielefeld | | Vienna | | Stockholm | | Lisbon | Amsterdam | | Rotterdam | |
|-------------|-----------|-------|----------|-------|-----------|-------|---------------|-----------|-----------|-----------|---------------|
| | Serbians | Turks | Serbians | Turks | Moroccans | Turks | Cape Verdians | Hindus | Moroccans | Turks | Cape Verdians |
| | Count | Count | Count | Count | Count | Count | Count | Count | Count | Count | Count |
| Not working | 140 | 152 | 113 | 127 | 75 | 96 | 90 | 100 | 163 | 161 | 63 |
| 1 | 3 | 2 | | | 10 | 12 | 1 | | | | 5 |
| 2 | 1 | 5 | 2 | 2 | 66 | 58 | 15 | 6 | 4 | 4 | 15 |
| 3 | 5 | 5 | 29 | 11 | 67 | 70 | 28 | 116 | 4 | 5 | 12 |
| 4 | 49 | 10 | 19 | 24 | 12 | 1 | 36 | 12 | 6 | 4 | 17 |
| 5 | 64 | 48 | 99 | 62 | 49 | 21 | 53 | 17 | 39 | 31 | 96 |
| Total | 262 | 222 | 262 | 226 | 279 | 258 | 223 | 251 | 216 | 205 | 208 |
| | In % | | | | | | | | | | |
| Not working | 53,4 | 68,5 | 43,1 | 56,2 | 26,9 | 37,2 | 40,4 | 39,8 | 75,5 | 78,5 | 30,3 |
| 1 | 1,1 | ,9 | | | 3,6 | 4,7 | ,4 | | | | 2,4 |
| 2 | ,4 | 2,3 | ,8 | ,9 | 23,7 | 22,5 | 6,7 | 2,4 | 1,9 | 2,0 | 7,2 |
| 3 | 1,9 | 2,3 | 11,1 | 4,9 | 24,0 | 27,1 | 12,6 | 46,2 | 1,9 | 2,4 | 5,8 |
| 4 | 18,7 | 4,5 | 7,3 | 10,6 | 4,3 | ,4 | 16,1 | 4,8 | 2,8 | 2,0 | 8,2 |
| 5 | 24,4 | 21,6 | 37,8 | 27,4 | 17,6 | 8,1 | 23,8 | 6,8 | 18,1 | 15,1 | 46,2 |
| Total | 100,0 | 100,0 | 100,0 | 100,0 | 100,0 | 100,0 | 100,0 | 100,0 | 100,0 | 100,0 | 100,0 |

1. Legislator/ senior government official
2. Technician/ professional
3. Clerk/ service worker/ salesperson, Low civil servant
4. Craftsman/ skilled worker
5. Elementary occupation/ labourer, Cleaning/washing

Descriptive statistics of variables used in subchapter 3.2:

Table 9a: Descriptive Statistics – All cases

| | N | Minimum | Maximum | Mean | Std. Deviation |
|---|------|---------|---------|-------|----------------|
| Sex (female=1) | 3304 | 0 | 1 | ,46 | ,498 |
| age at arrival | 3304 | 0 | 69 | 23,20 | 8,734 |
| Grown up in city or vil (city=1) | 3096 | 1 | 2 | 1,40 | ,489 |
| Education father | 2588 | 1 | 4 | 1,67 | ,760 |
| Education mother | 2640 | 1 | 4 | 1,36 | ,599 |
| Education respondent in country of origin | 3009 | 1 | 4 | 2,27 | ,844 |
| Occupation repondent in country of origin | 1074 | 1 | 6 | 4,08 | ,987 |
| Post-migr. occupation - 1st moment | 1874 | 1 | 6 | 4,37 | ,947 |
| Post-migr. occupation - 2nd moment | 2307 | 1 | 6 | 4,06 | 1,115 |
| Post-migr. occupation - 3rd moment | 1787 | 1 | 6 | 3,81 | 1,226 |

Table 9b: Descriptive Statistics – Cases age at arrival older than 18

| | N | Minimum | Maximum | Mean | Std. Deviation |
|---|------|---------|---------|-------|----------------|
| Sex (female=1) | 2612 | 0 | 1 | ,45 | ,498 |
| age at arrival | 2612 | 18 | 69 | 26,04 | 7,324 |
| Grown up in city or vil (city=1) | 2454 | 1 | 2 | 1,39 | ,489 |
| Education father | 1984 | 1 | 4 | 1,64 | ,765 |
| Education mother | 2025 | 1 | 4 | 1,33 | ,584 |
| Education respondent in country of origin | 2400 | 1 | 4 | 2,37 | ,846 |
| Occupation repondent in country of origin | 1068 | 1 | 6 | 4,08 | ,988 |
| Post-migr. occupation - 1st moment | 1589 | 1 | 6 | 4,38 | ,925 |
| Post-migr. occupation - 2nd moment | 1835 | 1 | 6 | 4,09 | 1,096 |
| Post-migr. occupation - 3rd moment | 1344 | 1 | 6 | 3,85 | 1,207 |

Table 9c: Descriptive Statistics – Cases age at arrival older than 18, working at middle moment

| | N | Minimum | Maximum | Mean | Std. Deviation |
|--|------|---------|---------|-------|----------------|
| Sex (female=1) | 1835 | 0 | 1 | ,35 | ,477 |
| age at arrival | 1835 | 18 | 69 | 25,26 | 6,096 |
| Grown up in city or vil (city=1) | 1710 | 1 | 2 | 1,38 | ,487 |
| Education father | 1342 | 1 | 4 | 1,69 | ,771 |
| Education mother | 1361 | 1 | 4 | 1,38 | ,608 |
| Education respondent in country of origin | 1710 | 1 | 4 | 2,48 | ,802 |
| Occupation repondent in country of origin | 824 | 1 | 6 | 4,06 | ,988 |
| Post-migr. occupation - 1st moment | 1352 | 1 | 6 | 4,36 | ,936 |
| Post-migr. occupation - 2nd moment | 1835 | 1 | 6 | 4,09 | 1,096 |
| Post-migr. occupation - 3rd moment | 1222 | 1 | 6 | 3,84 | 1,205 |

Chapter 3.3 Structural integration

Table 10 to Figure 1a: Percentage of employed by sex, group and city. The groups are (in the order of the figure): Amsterdam: Moroccans, Turks. Bielefeld: Serbs, Turks. Lisbon: Cape Verdians, Hindus. Rotterdam: Cape Verdians. Stockholm: Moroccans, Turks. Vienna: Serbs, Turks. First year after arrival.

| Amsterdam | Bielefeld | Lisbon | Rotterdam | Stockholm | Vienna |
|-----------|-----------|--------|-----------|-----------|--------|
| 81.7 | 89.3 | 59.6 | 52.5 | 41.7 | 79.9 |
| 5.3 | 56.4 | 39.9 | 33.8 | 33.3 | 61.8 |
| 73.5 | 65.5 | 82.9 | | 42.3 | 68.0 |
| 21.7 | 28.8 | 19.7 | | 21.6 | 34.2 |

Table 11 to Figure 1b: Percentage of employed by sex, group and city. The groups are (in the order of the figure): Amsterdam: Moroccans, Turks. Bielefeld: Serbs, Turks. Lisbon: Cape Verdians, Hindus. Rotterdam: Cape Verdians. Stockholm: Moroccans, Turks. Vienna: Serbs, Turks. Middle of stay.

| Amsterdam | Bielefeld | Lisbon | Rotterdam | Stockholm | Vienna |
|-----------|-----------|--------|-----------|-----------|--------|
| 69.9 | 93.1 | 72.5 | 87.0 | 93.1 | 96.3 |
| 6.9 | 77.1 | 54.8 | 76.3 | 78.6 | 78.7 |
| 69.1 | 80.7 | 90.7 | | 80.6 | 95.0 |
| 18.9 | 45.8 | 33.1 | | 58.4 | 54.2 |

Table 12 to Figure 1c: Percentage of employed by sex, group and city. The groups are (in the order of the figure): Amsterdam: Moroccans, Turks. Bielefeld: Serbs, Turks. Lisbon: Cape Verdians, Hindus. Rotterdam: Cape Verdians. Stockholm: Moroccans, Turks. Vienna: Serbs, Turks. Interview date.

| Amsterdam | Bielefeld | Lisbon | Rotterdam | Stockholm | Vienna |
|------------------|------------------|---------------|------------------|------------------|---------------|
| 46 | 57 | 60 | 79 | 78 | 65 |
| 12 | 57 | 45 | 76 | 70 | 65 |
| 60 | 50 | 84 | | 72 | 65 |
| 15 | 26 | 37 | | 66 | 41 |

Table 13 to Figure 12a: Percentage of unemployed by sex, group and city. The groups are (in the order of the figure): Amsterdam: Moroccans, Turks. Bielefeld: Serbs, Turks. Lisbon: Cape Verdians, Hindus. Rotterdam: Cape Verdians. Stockholm: Moroccans, Turks. Vienna: Serbs, Turks. First year after arrival.

| Amsterdam | Bielefeld | Lisbon | Rotterdam | Stockholm | Vienna |
|------------------|------------------|---------------|------------------|------------------|---------------|
| 2.61 | 1.26 | 1.32 | 4.94 | 31.94 | 0.00 |
| 0.00 | 0.71 | 0.00 | 9.35 | 23.81 | 0.74 |
| 8.82 | 6.21 | 1.32 | NA | 26.29 | 0.00 |
| 3.89 | 0.65 | 0.00 | NA | 15.20 | 0.00 |

Table 14 to Figure 12b: Percentage of unemployed by sex, group and city. The groups are (in the order of the figure): Amsterdam: Moroccans, Turks. Bielefeld: Serbs, Turks. Lisbon: Cape Verdians, Hindus. Rotterdam: Cape Verdians. Stockholm: Moroccans, Turks. Vienna: Serbs, Turks. Middle of stay.

| Amsterdam | Bielefeld | Lisbon | Rotterdam | Stockholm | Vienna |
|------------------|------------------|---------------|------------------|------------------|---------------|
| 9.80 | 1.26 | 3.36 | 2.47 | 4.17 | 0.00 |
| 0.76 | 1.43 | 4.11 | 4.32 | 10.71 | 3.68 |
| 15.44 | 8.97 | 3.97 | NA | 6.86 | 4.42 |
| 6.11 | 3.23 | 0.00 | NA | 11.20 | 5.00 |

Table 15 to Figure 12c: Percentage of unemployed by sex, group and city. The groups are (in the order of the figure): Amsterdam: Moroccans, Turks. Bielefeld: Serbs, Turks. Lisbon: Cape Verdians, Hindus. Rotterdam: Cape Verdians. Stockholm: Moroccans, Turks. Vienna: Serbs, Turks. Interview date.

| Amsterdam | Bielefeld | Lisbon | Rotterdam | Stockholm | Vienna |
|------------------|------------------|---------------|------------------|------------------|---------------|
| 10.5 | 11.9 | 10.5 | 2.5 | 6.0 | 12.8 |
| 0.0 | 2.8 | 3.4 | 8.6 | 9.5 | 6.6 |
| 12.5 | 23.4 | 8.6 | NA | 5.1 | 21.5 |
| 8.9 | 8.3 | 0.0 | NA | 5.6 | 22.5 |

Sectoral Employment at the second point in time (one year after arrival)

Table 16 to Figure 6a: Sectoral Employment for Moroccans in Amsterdam (one year after arrival, in absolute numbers)

| | Male | Female |
|-----------------------|-------------|---------------|
| Agriculture | 12 | 2 |
| Industry | 43 | 0 |
| Construction | 11 | 0 |
| Service Sector | 43 | 11 |
| Public Sector | 8 | 5 |
| Private Dom. Services | 1 | 2 |

Table 17 to Figure 6b: Sectoral Employment for Turks in Amsterdam (one year after arrival, in absolute numbers)

| | Male | Female |
|-----------------------|-------------|---------------|
| Agriculture | 4 | 5 |
| Industry | 39 | 13 |
| Construction | 4 | 0 |
| Service Sector | 47 | 16 |
| Public Sector | 13 | 20 |
| Private Dom. Services | 1 | 3 |

Table 18 to Figure 6c: Sectoral Employment for Serbs in Bielefeld (one year after arrival, in absolute numbers)

| | Male | Female |
|-----------------------|-------------|---------------|
| Agriculture | 5 | 0 |
| Industry | 96 | 49 |
| Construction | 22 | 0 |
| Service Sector | 12 | 20 |
| Public Sector | 5 | 8 |
| Private Dom. Services | 0 | 0 |

Table 19 to Figure 6d: Sectoral Employment for Turks in Bielefeld (one year after arrival, in absolute numbers)

| | Male | Female |
|-----------------------|-------------|---------------|
| Agriculture | 0 | 0 |
| Industry | 65 | 27 |
| Construction | 18 | 0 |
| Service Sector | 12 | 11 |
| Public Sector | 0 | 2 |
| Private Dom. Services | 0 | 0 |

Table 20 to Figure 6e: Sectoral Employment for Cape Verdians in Lisbon (one year after arrival, in absolute numbers)

| | Male | Female |
|-----------------------|-------------|---------------|
| Agriculture | 0 | 2 |
| Industry | 5 | 2 |
| Construction | 83 | 0 |
| Service Sector | 22 | 32 |
| Public Sector | 9 | 4 |
| Private Dom. Services | 0 | 55 |

Table 21 to Figure 6f: Sectoral Employment for Hindus in Lisbon (one year after arrival, in absolute numbers)

| | Male | Female |
|-----------------------|-------------|---------------|
| Agriculture | 0 | 0 |
| Industry | 1 | 1 |
| Construction | 28 | 0 |
| Service Sector | 50 | 20 |
| Public Sector | 2 | 2 |
| Private Dom. Services | 0 | 2 |

Table 22 to Figure 7a: Sectoral Employment for Moroccans in Stockholm (one year after arrival, in absolute numbers)

| | Male | Female |
|-----------------------|-------------|---------------|
| Agriculture | 1 | 0 |
| Industry | 11 | 3 |
| Construction | 3 | 0 |
| Service Sector | 56 | 7 |
| Public Sector | 26 | 12 |
| Private Dom. Services | 20 | 10 |

Table 23 to Figure 7b: Sectoral Employment for Turks in Stockholm (one year after arrival, in absolute numbers)

| | Male | Female |
|-----------------------|-------------|---------------|
| Agriculture | 2 | 0 |
| Industry | 6 | 4 |
| Construction | 3 | 0 |
| Service Sector | 34 | 5 |
| Public Sector | 14 | 8 |
| Private Dom. Services | 7 | 3 |

Table 24 to Figure 7c: Sectoral Employment for Cape Verdians in Rotterdam (one year after arrival, in absolute numbers)

| | Male | Female |
|-----------------------|-------------|---------------|
| Agriculture | 27 | 1 |
| Industry | 18 | 17 |
| Construction | 2 | 0 |
| Service Sector | 58 | 46 |
| Public Sector | 5 | 8 |
| Private Dom. Services | 1 | 9 |

Table 25 to Figure 7d: Sectoral Employment for Serbs in Vienna (one year after arrival, in absolute numbers)

| | Male | Female |
|-----------------------|-------------|---------------|
| Agriculture | 3 | 3 |
| Industry | 54 | 16 |
| Construction | 40 | 0 |
| Service Sector | 28 | 60 |
| Public Sector | 13 | 14 |
| Private Dom. Services | 0 | 2 |

Table 26 to Figure 7e: Sectoral Employment for Turks in Vienna (one year after arrival, in absolute numbers)

| | Male | Female |
|-----------------------|-------------|---------------|
| Agriculture | 3 | 0 |
| Industry | 63 | 17 |
| Construction | 17 | 0 |
| Service Sector | 38 | 21 |
| Public Sector | 4 | 4 |
| Private Dom. Services | 0 | 1 |

Sectoral Employment at the second point in time (middle of stay)

Table 27 to Figure 8a: Sectoral Employment for Moroccans in Amsterdam (middle of stay, in absolute numbers)

| | Male | Female |
|-----------------------|-------------|---------------|
| Agriculture | 8 | 2 |
| Industry | 21 | 0 |
| Construction | 9 | 0 |
| Service Sector | 51 | 6 |
| Public Sector | 12 | 6 |
| Private Dom. Services | 2 | 1 |

Table 28 to Figure 8b: Sectoral Employment for Turks in Amsterdam (middle of stay, in absolute numbers)

| | Male | Female |
|-----------------------|-------------|---------------|
| Agriculture | 1 | 4 |
| Industry | 30 | 7 |
| Construction | 1 | 0 |
| Service Sector | 50 | 19 |
| Public Sector | 12 | 11 |
| Private Dom. Services | 0 | 1 |

Table 29 to Figure 8c: Sectoral Employment for Serbs in Bielefeld (middle of stay, in absolute numbers)

| | Male | Female |
|-----------------------|-------------|---------------|
| Agriculture | 6 | 0 |
| Industry | 95 | 61 |
| Construction | 18 | 1 |
| Service Sector | 18 | 24 |
| Public Sector | 5 | 20 |
| Private Dom. Services | 0 | 0 |

Table 30 to Figure 8d: Sectoral Employment for Turks in Bielefeld (middle of stay, in absolute numbers)

| | Male | Female |
|-----------------------|-------------|---------------|
| Agriculture | 0 | 1 |
| Industry | 103 | 27 |
| Construction | 1 | 0 |
| Service Sector | 10 | 32 |
| Public Sector | 3 | 9 |
| Private Dom. Services | 0 | 2 |

Table 31 to Figure 8e: Sectoral Employment for Cape Verdians in Lisbon (middle of stay, in absolute numbers)

| | Male | Female |
|-----------------------|-------------|---------------|
| Agriculture | 0 | 3 |
| Industry | 6 | 3 |
| Construction | 72 | 0 |
| Service Sector | 23 | 49 |
| Public Sector | 15 | 12 |
| Private Dom. Services | 0 | 37 |

Table 32 to Figure 8f: Sectoral Employment for Hindus in Lisbon (middle of stay, in absolute numbers)

| | Male | Female |
|-----------------------|-------------|---------------|
| Agriculture | 0 | 0 |
| Industry | 1 | 1 |
| Construction | 24 | 0 |
| Service Sector | 84 | 38 |
| Public Sector | 1 | 7 |
| Private Dom. Services | 0 | 2 |

Table 33 to Figure 9a: Sectoral Employment for Moroccans in Stockholm (middle of stay, in absolute numbers)

| | Male | Female |
|-----------------------|-------------|---------------|
| Agriculture | 8 | 0 |
| Industry | 28 | 1 |
| Construction | 9 | 2 |
| Service Sector | 89 | 15 |
| Public Sector | 52 | 27 |
| Private Dom. Services | 12 | 22 |

Table 34 to Figure 9b: Sectoral Employment for Turks in Stockholm (middle of stay, in absolute numbers)

| | Male | Female |
|-----------------------|-------------|---------------|
| Agriculture | 11 | 0 |
| Industry | 19 | 4 |
| Construction | 3 | 3 |
| Service Sector | 57 | 15 |
| Public Sector | 50 | 42 |
| Private Dom. Services | 5 | 9 |

Table 351 to Figure 9c: Sectoral Employment for Cape Verdians in Rotterdam (middle of stay, in absolute numbers)

| | Male | Female |
|-----------------------|-------------|---------------|
| Agriculture | 11 | 1 |
| Industry | 37 | 19 |
| Construction | 12 | 0 |
| Service Sector | 77 | 54 |
| Public Sector | 12 | 29 |
| Private Dom. Services | 0 | 12 |

Table 36 to Figure 9d: Sectoral Employment for Serbs in Vienna (middle of stay, in absolute numbers)

| | Male | Female |
|-----------------------|-------------|---------------|
| Agriculture | 0 | 1 |
| Industry | 52 | 14 |
| Construction | 32 | 0 |
| Service Sector | 44 | 57 |
| Public Sector | 24 | 33 |
| Private Dom. Services | 0 | 1 |

Table 37 to Figure 9e: Sectoral Employment for Turks in Vienna (middle of stay, in absolute numbers)

| | Male | Female |
|-----------------------|-------------|---------------|
| Agriculture | 1 | 0 |
| Industry | 78 | 13 |
| Construction | 24 | 0 |
| Service Sector | 55 | 32 |
| Public Sector | 6 | 18 |
| Private Dom. Services | 0 | 1 |

Sectoral Employment at the second point in time (Interview date)

Table 38 to Figure 10a: Sectoral Employment for Moroccans in Amsterdam (interview date, in absolute numbers)

| | Male | Female |
|-----------------------|-------------|---------------|
| Agriculture | 4 | 3 |
| Industry | 9 | 0 |
| Construction | 6 | 0 |
| Service Sector | 37 | 4 |
| Public Sector | 12 | 8 |
| Private Dom. Services | 1 | 2 |

Table 39 to Figure 10b: Sectoral Employment for Turks in Amsterdam (interview date, in absolute numbers)

| | Male | Female |
|-----------------------|-------------|---------------|
| Agriculture | 0 | 1 |
| Industry | 12 | 2 |
| Construction | 1 | 0 |
| Service Sector | 46 | 14 |
| Public Sector | 21 | 10 |
| Private Dom. Services | 0 | 2 |

Table 40 to Figure 10c: Sectoral Employment for Serbs in Bielefeld (interview date, in absolute numbers)

| | Male | Female |
|-----------------------|-------------|---------------|
| Agriculture | 3 | 0 |
| Industry | 59 | 36 |
| Construction | 9 | 2 |
| Service Sector | 18 | 22 |
| Public Sector | 2 | 17 |
| Private Dom. Services | 0 | 2 |

Table 41 to Figure 10d: Sectoral Employment for Turks in Bielefeld (interview date, in absolute numbers)

| | Male | Female |
|-----------------------|-------------|---------------|
| Agriculture | 0 | 0 |
| Industry | 58 | 8 |
| Construction | 1 | 0 |
| Service Sector | 11 | 24 |
| Public Sector | 3 | 10 |
| Private Dom. Services | 0 | 1 |

Table 42 to Figure 10e: Sectoral Employment for Cape Verdians in Lisbon (interview date, in absolute numbers)

| | Male | Female |
|-----------------------|-------------|---------------|
| Agriculture | 1 | 2 |
| Industry | 2 | 2 |
| Construction | 64 | 0 |
| Service Sector | 25 | 49 |
| Public Sector | 15 | 9 |
| Private Dom. Services | 0 | 30 |

Table 43 to Figure 10f: Sectoral Employment for Hindus in Lisbon (interview date, in absolute numbers)

| | Male | Female |
|-----------------------|-------------|---------------|
| Agriculture | 0 | 0 |
| Industry | 1 | 0 |
| Construction | 13 | 0 |
| Service Sector | 117 | 53 |
| Public Sector | 1 | 7 |
| Private Dom. Services | 0 | 2 |

Table 44 to Figure 11a: Sectoral Employment for Moroccans in Stockholm (interview date, in absolute numbers)

| | Male | Female |
|-----------------------|-------------|---------------|
| Agriculture | 9 | 1 |
| Industry | 41 | 2 |
| Construction | 7 | 3 |
| Service Sector | 61 | 12 |
| Public Sector | 40 | 23 |
| Private Dom. Services | 4 | 15 |

Table 45 to Figure 11b: Sectoral Employment for Turks in Stockholm (interview date, in absolute numbers)

| | Male | Female |
|-----------------------|-------------|---------------|
| Agriculture | 16 | 2 |
| Industry | 30 | 4 |
| Construction | 6 | 4 |
| Service Sector | 31 | 11 |
| Public Sector | 43 | 51 |
| Private Dom. Services | 2 | 8 |

Table 46 to Figure 11c: Sectoral Employment for Cape Verdians in Rotterdam (interview date, in absolute numbers)

| | Male | Female |
|-----------------------|-------------|---------------|
| Agriculture | 5 | 1 |
| Industry | 26 | 11 |
| Construction | 16 | 0 |
| Service Sector | 62 | 45 |
| Public Sector | 18 | 44 |
| Private Dom. Services | 0 | 6 |

Table 47 to Figure 11d: Sectoral Employment for Serbs in Vienna (interview date, in absolute numbers)

| | Male | Female |
|-----------------------|-------------|---------------|
| Agriculture | 0 | 0 |
| Industry | 20 | 11 |
| Construction | 15 | 0 |
| Service Sector | 32 | 43 |
| Public Sector | 29 | 31 |
| Private Dom. Services | 0 | 2 |

Table 48 to Figure 11e: Sectoral Employment for Turks in Vienna (interview date, in absolute numbers)

| | Male | Female |
|-----------------------|-------------|---------------|
| Agriculture | 1 | 1 |
| Industry | 36 | 4 |
| Construction | 15 | 1 |
| Service Sector | 46 | 19 |
| Public Sector | 6 | 21 |
| Private Dom. Services | 0 | 0 |

Table 49 to Figure 12a: Percentage of skilled occupations by sex, group and city. The groups are (in order of the figure): Amsterdam: Moroccans, Turks; Bielefeld: Serbs, Turks; Lisbon: Cape Verdians, Hindus; Rotterdam: Cape Verdians; Stockholm: Moroccans, Turks; Vienna: Serbs, Turks. One year after arrival.

| Amsterdam | Bielefeld | Lisbon | Rotterdam | Stockholm | Vienna |
|------------------|------------------|---------------|------------------|------------------|---------------|
| 16.8 | 57.1 | 65.5 | 22.3 | 53.7 | 29.7 |
| 14.3 | 33.8 | 25.0 | 18.3 | 31.2 | 13.4 |
| 25.2 | 24.4 | 82.3 | | 70.0 | 36.8 |
| 15.8 | 7.5 | 78.8 | | 57.7 | 31.8 |

Table 50 to Figure 12b: Percentage of skilled occupations by sex, group and city. The groups are (in order of the figure): Amsterdam: Moroccans, Turks; Bielefeld: Serbs, Turks; Lisbon: Cape Verdians, Hindus; Rotterdam: Cape Verdians; Stockholm: Moroccans, Turks; Vienna: Serbs, Turks. Middle of Stay.

| Amsterdam | Bielefeld | Lisbon | Rotterdam | Stockholm | Vienna |
|------------------|------------------|---------------|------------------|------------------|---------------|
| 30 | 63 | 84 | 35 | 73 | 34 |
| 33 | 37 | 35 | 33 | 49 | 20 |
| 34 | 33 | 90 | | 81 | 43 |
| 28 | 17 | 87 | | 82 | 28 |

Table 51 to Figure 12c: Percentage of skilled occupations by sex, group and city. The groups are (in order of the figure): Amsterdam: Moroccans, Turks; Bielefeld: Serbs, Turks; Lisbon: Cape Verdians, Hindus; Rotterdam: Cape Verdians; Stockholm: Moroccans, Turks; Vienna: Serbs, Turks. Interview date.

| Amsterdam | Bielefeld | Lisbon | Rotterdam | Stockholm | Vienna |
|------------------|------------------|---------------|------------------|------------------|---------------|
| 36 | 62 | 88 | 47 | 78 | 36 |
| 41 | 40 | 34 | 47 | 68 | 25 |
| 40 | 39 | 92 | | 86 | 46 |
| 27 | 26 | 79 | | 94 | 11 |

The number of cases for the previous tables is given in the following tables. These give the number of valid answers to variable A07. Thus they represent the numerators to the percentages given in the figure 12a-c:

Table 52 to Figure 12a: Number of cases: skilled occupations by sex, group and city. The groups are (in order of the figure): Amsterdam: Moroccans, Turks; Bielefeld: Serbs, Turks; Lisbon: Cape Verdians, Hindus; Rotterdam: Cape Verdians; Stockholm: Moroccans, Turks; Vienna: Serbs, Turks. One year after arrival.

| Amsterdam | Bielefeld | Lisbon | Rotterdam | Stockholm | Vienna |
|------------------|------------------|---------------|------------------|------------------|---------------|
| 119 | 140 | 119 | 112 | 123 | 138 |
| 21 | 77 | 96 | 82 | 32 | 97 |
| 103 | 90 | 130 | | 70 | 125 |
| 57 | 40 | 33 | | 26 | 44 |

Table 53 to Figure 12b: Number of cases: skilled occupations by sex, group and city. The groups are (in order of the figure): Amsterdam: Moroccans, Turks; Bielefeld: Serbs, Turks; Lisbon: Cape Verdians, Hindus; Rotterdam: Cape Verdians; Stockholm: Moroccans, Turks; Vienna: Serbs, Turks. Middle of Stay.

| Amsterdam | Bielefeld | Lisbon | Rotterdam | Stockholm | Vienna |
|------------------|------------------|---------------|------------------|------------------|---------------|
| 100 | 130 | 121 | 146 | 203 | 152 |
| 15 | 104 | 107 | 113 | 68 | 107 |
| 82 | 111 | 137 | | 146 | 164 |
| 39 | 70 | 52 | | 76 | 64 |

Table 54 to Figure18a: Percentage in bad occupational position by sex, group and city. The groups are (in order of the figure): Amsterdam: Moroccans, Turks; Bielefeld: Serbs, Turks; Lisbon: Cape Verdians, Hindus; Rotterdam: Cape Verdians; Stockholm: Moroccans, Turks; Vienna: Serbs, Turks. One year after arrival.

| Amsterdam | Bielefeld | Lisbon | Rotterdam | Stockholm | Vienna |
|-----------|-----------|--------|-----------|-----------|--------|
| 87 | 51 | 47 | 85 | 86 | 76 |
| 100 | 76 | 96 | 92 | 91 | 93 |
| 81 | 76 | 83 | | 90 | 74 |
| 92 | 91 | 88 | | 89 | 75 |

Table 55 to Figure18b: Percentage in bad occupational position by sex, group and city. The groups are (in order of the figure): Amsterdam: Moroccans, Turks; Bielefeld: Serbs, Turks; Lisbon: Cape Verdians, Hindus; Rotterdam: Cape Verdians; Stockholm: Moroccans, Turks; Vienna: Serbs, Turks. Middle of Stay.

| Amsterdam | Bielefeld | Lisbon | Rotterdam | Stockholm | Vienna |
|-----------|-----------|--------|-----------|-----------|--------|
| 82 | 45 | 30 | 74 | 66 | 73 |
| 100 | 75 | 89 | 83 | 79 | 94 |
| 82 | 74 | 82 | | 67 | 68 |
| 94 | 89 | 86 | | 71 | 84 |

Table 56 to Figure18c: Percentage in bad occupational position by sex, group and city. The groups are (in order of the figure): Amsterdam: Moroccans, Turks; Bielefeld: Serbs, Turks; Lisbon: Cape Verdians, Hindus; Rotterdam: Cape Verdians; Stockholm: Moroccans, Turks; Vienna: Serbs, Turks. Interview Date.

| Amsterdam | Bielefeld | Lisbon | Rotterdam | Stockholm | Vienna |
|-----------|-----------|--------|-----------|-----------|--------|
| 83 | 57 | 35 | 71 | 59 | 83 |
| 100 | 73 | 91 | 77 | 67 | 94 |
| 83 | 81 | 87 | | 55 | 75 |
| 96 | 88 | 87 | | 62 | 100 |

The numbers of cases for the tables above are given in the following tables. These give the number of valid cases for the constructed variable *beg*. Thus, they are the numerators to the percentages given in the figure:

Table 27 to Figure 18a: Number of cases: bad occupational position by sex, group and city. The groups are (in order of the figure): Amsterdam: Moroccans, Turks; Bielefeld: Serbs, Turks; Lisbon: Cape Verdians, Hindus; Rotterdam: Cape Verdians; Stockholm: Moroccans, Turks; Vienna: Serbs, Turks. One year after arrival.

| Amsterdam | Bielefeld | Lisbon | Rotterdam | Stockholm | Vienna |
|------------------|------------------|---------------|------------------|------------------|---------------|
| 99 | 114 | 88 | 104 | 196 | 136 |
| 20 | 69 | 75 | 98 | 61 | 95 |
| 82 | 71 | 112 | | 122 | 144 |
| 50 | 24 | 34 | | 69 | 52 |

Table 58 to Figure 18b: Number of cases: bad occupational position by sex, group and city. The groups are (in order of the figure): Amsterdam: Moroccans, Turks; Bielefeld: Serbs, Turks; Lisbon: Cape Verdians, Hindus; Rotterdam: Cape Verdians; Stockholm: Moroccans, Turks; Vienna: Serbs, Turks. Middle of Stay.

| Amsterdam | Bielefeld | Lisbon | Rotterdam | Stockholm | Vienna |
|------------------|------------------|---------------|------------------|------------------|---------------|
| 81 | 103 | 93 | 104 | 198 | 129 |
| 9 | 85 | 89 | 97 | 69 | 99 |
| 70 | 83 | 113 | | 137 | 139 |
| 37 | 49 | 45 | | 78 | 64 |

Table 59 to Figure 18c: Number of cases: bad occupational position by sex, group and city. The groups are (in order of the figure): Amsterdam: Moroccans, Turks; Bielefeld: Serbs, Turks; Lisbon: Cape Verdians, Hindus; Rotterdam: Cape Verdians; Stockholm: Moroccans, Turks; Vienna: Serbs, Turks. Interview date.

| Amsterdam | Bielefeld | Lisbon | Rotterdam | Stockholm | Vienna |
|------------------|------------------|---------------|------------------|------------------|---------------|
| 68 | 82 | 90 | 89 | 170 | 106 |
| 10 | 67 | 78 | 84 | 59 | 90 |
| 53 | 70 | 112 | | 120 | 122 |
| 31 | 35 | 54 | | 75 | 62 |

Appendix 2

LIMITS Codebook

The LIMITS Codebook represents an additional file

Annex B

Structural Integration - Education

City Reports

Sampling

Background country Reports

Annex B represents an additional file

**Contract No.: HPSE-CT-2002-00145
SERD-2002-00092**

**Immigrants and Ethnic Minorities in European Cities: Life-courses and
Quality of Life in a World of Limitations**

LIMITS



**Deliverable No. 14
Education**

**Partner: Uppsala University
Authors: Ali Najib and Tsegaye Tegenu**

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Abstract

In this paper we assess and compare both academic and vocational educational attainments of immigrants and their children; beginning with the first-generation, and ending with second-generation whose members are now entering higher education. Both pre- and post-migration educational attainment of first-generation immigrants are examined among five ethnic groups and across six European cities are analysed and compared. More specifically we compare the educational attainment of Cape Verdians, Hindus, Moroccans, Serbians and Turks immigrants in six cities: Bielefeld, Vienna, Stockholm, Lisbon, Amsterdam, and Rotterdam. We also examined the impact of parental educational attainment on second-generation immigrants. Focus is on interethnic and intergeneration differences in educational attainment of immigrants. We make use of the LIMITS-database, which is a unique database, containing a large amount of information on 3304 foreign-born respondents and their children. Our findings show that not all migrants who arrived in European countries were illiterate or poorly-educated; on the contrary, a vast majority had some education already at arrival and that a large proportion of them have further improved their post-migration education in the host country, although differences between different ethnic groups and destination country are wide. We also document significant reductions in these differences in primary education and partly in secondary and post-secondary education. We note that ethnic convergence at the primary and secondary school levels occurred both among the first-generation and second-generation immigrants; and while divergence at the post-secondary levels tend to prevail among first-generation and tend proceed to some extent even during the second generation. Finally, parental education has no or limited influence on children's education.

1. Introduction

Together with the enlargement of the European Union and the consequences of demographic change, the integration of foreign-born immigrants and their children is one of Europe Union's most important challenges over the next decade. These challenges are intimately related. The enlargement of the European Union to incorporate countries of Central and Eastern Europe is likely to be associated with additional – though probably moderate¹ – migration flows towards the current member states. These flows in turn will have effects on overall population growth, and potentially on the relative status of the immigrant communities in each country. At the same time, however, we do not sufficiently understand the mechanisms governing the integration of immigrant and other ethnic minorities into society, and the available policies to facilitate this process.

Until recently, most immigrants came from neighbouring European countries. For example, prior to the 1970s, migrant waves to most West European countries consisted mainly of labour migrants from Southern Europe, driven by labour market opportunities in receiving countries and depressed conditions in the sending regions. Over the past three decades, however, the ethnic composition of immigration to most EU member states has changed significantly, due to increasing immigrant flows from Africa Asia and Latin America. As a consequence, both the geographic and cultural gaps between the receiving and the sending countries have widened. Hence today, all EU-15 countries have sizeable communities of both first and second generation immigrants whose social and economic characteristics and outcomes are a matter of growing concern.²

¹ For example, see Bauer and Zimmermann (1999).

² See e.g. the symposium on second-generation immigrants in the *Journal of Population Economics*, 2003.

Many observers of these phenomena fear that as migrant integration opportunities remain limited, the risk of increasing social, economic, political and cultural isolation of immigrant rises, setting the stage for the creation of permanent second class citizens.³ Despite the growing recognition of this situation, relatively little research has targeted the question of migrants' integration into European societies, nor are the potential consequences of different policies regarding the participation of migrants and other minorities in the society and the political process fully understood. In many European countries, even less is known about the integration of the descendants of the migrants, the so-called second-generation immigrants.

This paper aims at contributing to a better understanding of these processes by investigating one of the structural dimensions of integration: educational attainment of foreign-born immigrants and that of their children.

2. Research Questions

In this paper we study both pre-migration and post-migration educational attainment.⁴ In addition, we also study the educational attainment of second-generation, i.e. children of immigrants. The unique database we use in study, allows not only for identification of the level of educational attainment of foreign-born immigrants at the time of entry as well as any new changes in education since arrival, but also the educational level of their children, i.e. second-generation. Specifically, access to such a unique survey data allows us to address several questions that are central to the debate on immigrants' educational behaviour. The first broad quest we investigate concerns pre-migration education: To what extent do immigrants bring with them education at arrive in the destination country? What type of education attainments do different immigrant groups bring with them at arrival? Educational achievement of different immigrant groups at arrival in an immigrant country will most likely differ across country of origin.

The second broad question is: To what extent do immigrants invest in the host country's education? The incentives for investing in a host country's education will most likely differ between immigrant groups and across different spatial contexts (i.e. different cities). Although, neither host country nor destination city, can directly decide on magnitude or quality of pre-migration education, there is a tendency that different destination countries and regions within these country typically attract different ethnic groups and with various educational attainment. Moreover, educational level between individual immigrants with an immigrant group will certainly differ with the level of pre-migration education at arrival. For example, assuming a difference in opportunity costs between more educated and less educated migrants, we expect the former group to invest more than the latter. The willingness to invest in the host country's education may also depend on the age of immigrant at the time of arrival as well as on duration of stay. As the data we use includes information on both pre-migration and post-migration, we hope to gain more insight into the profile of immigrants' educational attainment.

³ For instance, participants of the European Economic and Social Committee (EESC) conference on the integration of immigrants emphasized the need for increased political rights for migrants, in addition to equal access to welfare, health and education (see EESC press release No. 64/2002, September 2002).

⁴ The terms 'pre-migration' educational attainment refers to the level of education at arrival in host country and 'post-migration' educational attainment of foreign-born immigrants signifies how immigrants' education changes with time spent in the host country.

It is well established that the labour market experience of immigrants in the host country, to a large extent, depends on their endowment of, predominantly host-country specific, human capital. More educated individuals at arrival will certainly invest more in host countries education, but only if the individual immigrant is still young. If he or she is an old person the opportunity cost will be much higher, depending on how many years s/he has left to retirement. Hence, if pre- and post-migration education is positively correlated, then using a policy that implies selecting highly educated immigrants may be favourable, as these immigrants are more likely to perform well in the host-country's labour market. Moreover, the value of the pre-migration education depends to a large extent on its transferability and to the extent it is recognised in the destination country.

Destination countries have different policies in recognising pre-migration education, and it is not unusual that pre-migration education is not recognised. Even geographical regions, companies and organisations within one and the same country have different policies in this matter. It is therefore important in the empirical analysis to examine both pre-migration and post-migration educational attainment of our immigrant population, trying to find out if there are any significant differences between various immigrant groups, particularly with respect to different European cities. Hence, it is important to find out how post-migration education changes with time spent in the host country. It is expected that most of the investment activities take place during the first few years after arrival in the host country, as this gives the investor a longer time horizon in which he can obtain returns on his investment.

The third broad question we seek to answer is: whether immigrant parental education has a significant influence on children's educational attainment? To what extent do parental and ethnic influences affect on educational attainment of their children? Whether there is a large difference between educational level of first- and second-generation immigrants?

The most fundamental factor effecting children's educational attainment is the human capital of parents. The level and quality of the mother's educational endowment is usually more closely related to the attainment of the child than is that of the father. Given the importance of parental education in the children's education achievement, one would expect that the children of better-educated parents will have higher and better education, while the children of uneducated or less-educated parents will have low or not education at all.

3. Data

The data used in the analysis were collected in five European countries in 2004. In each country, two samples of migrant communities comprising each circa 300 persons were interviewed about aspects of social and structural integration. The interviews were conducted in one selected city of the respective country, namely the cities of Vienna in Austria, Bielefeld in Germany, Lisbon in Portugal and Stockholm in Sweden. An exception is the Netherlands. Two migrant communities were interviewed in Amsterdam and a third sample in Rotterdam. In total 3304 persons of 11 different samples were interviewed. The following table shows the information we have on both academic and vocational education.

| | Missing | Valid | | Sub total (percent) | Total |
|---|---------------|-----------------|-----------------------|------------------------|----------------|
| | | No education | Received education | | |
| Pre-migration academic education | 295 (9%) | 520 (16%) | 2489 (75%) | 3009 (91%) | 3304 (100%) |
| Pre-migration vocational education | 829 (25%) | 1911 (58%) | 564 (17%) | 2475 (75%) | 3304 (100%) |
| Academic education in third country | 2251 (68%) | 890 (27%) | 163 (5%) | 1053 (32%) | 3304 (100%) |
| Vocational education in third country | 2316 (70%) | 935 (28%) | 53 (2%) | 988 (30%) | 3304 (100%) |
| Post-migration academic education | 2201 (67%) | 301 (9%) | 802 (24%) | 1103 (33%) | 3304 (100%) |
| Post migration vocational education | 2250 (68%) | 481 (15%) | 573 (17%) | 1054 (32%) | 3304 (100%) |

Source: LIMITS survey, 2004.

Except for pre-migration academic education, the information we have about other types and periods of education is only for less than a quarter of the respondents. Those who received pre-migration vocational education are 17%. Respondents who received academic and vocational education in third country were 5% and 2% respectively. It is only about 24% and 17% who have academic and vocational education in the post migration period. Due to the size of data we have for education, it may not be meaningful to carry out analysis over time. In addition we do not have relevant data such as school attendance rates, dropout percentages to discuss the educational status. With great caution we will try to make comparisons across cities and ethnic groups for identical indicators for which we have data. Comparison is more of illustrative than representative.

The followings are the interview questions and response categories:

B20: What is the highest level of schooling you achieved in your country of origin?

- 1 None
- 2 Primary school
- 3 1ciclo
- 4 2ciclo
- 5 3ciclo
- 6 Secondary school
- 7 University entrance exams

B21: What is the highest level of vocational or higher education you completed in your country of origin?

- 1 None
- 2 Training at the workplace

3 Apprenticeship (with certificate)

4 College or university degree

B22: What is the highest school certificate you achieved in a third country?

1 None

2 Primary school

3 1ciclo

4 2ciclo

5 3ciclo

6 Secondary school

7 University entrance exams

B23: What is the highest level of vocational or higher education you completed in a third country?

1 None

2 Training at the workplace

3 Apprenticeship (with certificate)

4 College or university degree

L02: What is the highest level of schooling you achieved in the receiving country?

1 None

2 Primary school

3 1ciclo

4 2ciclo

5 3ciclo

6 Secondary school

7 University entrance exams

L03: What is the highest level of vocational education you achieved in the receiving country?

1 None

2 Training at the workplace

3 Apprenticeship (with certificate)

4 College or university degree

C11: What is the highest level of schooling reached by your daughter/son in the receiving country?

1 None

2 Primary school

3 1ciclo

4 2ciclo

5 3ciclo

6 Secondary school

7 University entrance exams

B08: Education of parents, Father.

1 None

2 Primary school

3 1ciclo

4 2ciclo

5 3ciclo

- 6 Secondary school
- 7 University entrance exams

B10: Education of parents, Mother

- 1 None
- 2 Primary school
- 3 1ciclo
- 4 2ciclo
- 5 3ciclo
- 6 Secondary school
- 7 University entrance exams

4. Analysis Results

The analysis is split into three broad sections. First, we examine pre-migration educational attainment of foreign-born immigrants, then we assess their post-migration education and compare pre-migration and post-migration education; we then move on to examine the educational levels of second-generation and the possibility that the impact of parental education might have on the education of children of immigrants. Finally, we examine vocational education of foreign-born immigrants by ethnic group and city of residence.

Four measures of educational attainment are used: (i) no education, then highest education in (ii) primary education, (iii) secondary education, and (iv) university education.

4.1. Pre-migration education

Figure 1 shows the highest reported pre-migration education at the time of arrival, broken down by immigrant group and city residence.⁵ It shows that Turkish immigrants are the most highly educated group of immigrants upon arrival, particularly those who arrived in Stockholm, Vienna and Bielefeld, while those Turks arriving in Amsterdam seem to have lower education than other Turkish immigrants. Nearly, one-fifth of all Turkish immigrants who arrived in both Bielefeld and Stockholm entered with university education; they were followed by those arriving in Vienna (11%) and those in Amsterdam (10%). As for those Moroccans who arrived in Stockholm, 12 percent entered with university education, but only 3 percent those arriving in Amsterdam had university education. About 8 percent of Serbs in Vienna, but only 3 percent in Bielefeld, entered with university education. The corresponding percentage among Hindu immigrants in Lisbon is 3 percent, and 3 percent for Cape Verdians in Rotterdam, while none Cape Verdians in Lisbon entered with any university education at all.

As for pre-migration secondary education, Serbs both in Vienna and Bielefeld show relatively higher secondary education, with 38 percent and 36 percent respectively. Also Turkish immigrants, particularly those in Stockholm entered with high secondary education (41%), followed by those in Vienna (37%), Bielefeld (15%) and again those who arrived in Amsterdam had the lowest secondary education (11%). Moroccans show the same secondary

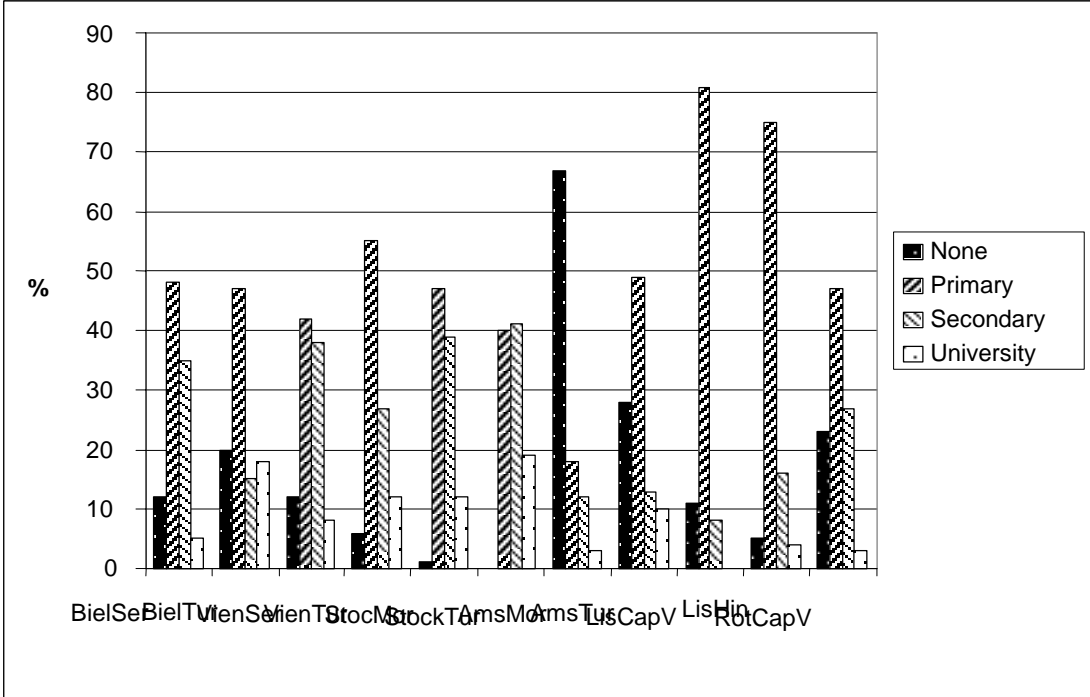
⁵ To make the figure more technically manageable, we shortened the names of both the city and ethnic group and combining new names, i.e. 'BielSer' signifies Serbs in Bielefeld, while 'BielTur' refers Turks in Bielefeld, 'AmsMor' refers to Moroccans in Amsterdam, and 'TurAms' refer to Turks in Amsterdam, etc.

educational behaviour as that of Turkish immigrants with the highest level (39%) in Stockholm and surprisingly a very low level (11%) in Amsterdam. Nearly two-fifths (37%) of the Cape Verdians in Rotterdam entered with secondary education, while those in Lisbon surprisingly arrived comparatively with very low (9%) secondary schooling. Also, Hindu immigrants in Lisbon arrived with surprisingly with very low secondary education. Compared with the other immigrant groups, both Cape Verdian and Hindu immigrants are recent immigrants and thus are expected to show higher education than it is the case.

When it comes to pre-migration primary education, a vast majority of both Cape Verdian and Hindu immigrants in Lisbon arrived with primary education as the highest educational level, 80 percent and 75 percent respectively. Even a large proportion of the Turkish immigrants arrived with lowest education level, and in this case, about 50 percent of all Turkish communities in the four cities, even those in Amsterdam, arrived with primary education as the highest education they achieved. Furthermore, a relatively high proportion of Serbs in Bielefeld (49%) and in Vienna (41%) arrived with only primary education. Finally, over two thirds of Moroccans arrived in Amsterdam with only primary education.

Moroccans in Amsterdam are the less educated immigrants, at the same time those in Stockholm are among the most educated immigrant groups in this study. Similarly, Turks in Amsterdam are less educated while those in Stockholm are amongst the most educated. Moreover, Cape Verdians in Lisbon and Rotterdam show almost the same pattern, those in Rotterdam are less educate while those in Lisbon seem to be better educated.

Figure 1 Pre-migration educational level by ethnic group and city of residence, 2004



Source: LIMITS survey, 2004.

One possible explanation for the relatively low education for Moroccans and Turks, particularly in Amsterdam and for Turks and Serbs in Bielefeld is probably these constitute the early wave of unskilled immigrant workers who were recruited in the 1960s for unqualified works such as coal miners and manufactory workers. Overall, it appears that

labour migrants in Western Europe display the lowest upon arrival schooling levels. However, there appears to be a decline in the average educational level of recently arriving refugee immigrants, compared to the pre-1970 arrival cohort. There are two plausible reasons for this trend. The first is that refugee migration to Europe from 1945 through 1970 was almost exclusively composed of individuals from Eastern Europe, while from the 1970s onwards, individuals from developing countries, i.e. countries with lower average educational attainment levels, have dominated refugee migration. The second explanation lies in the very nature of refugee migration, with the earliest refugees from a given country often being more highly educated than those who follow. This may possibly be due to both being most likely to be persecuted and also having the ability and means to leave.

The educational trend seems to be the reverse among labour migrants. Those who recently arrived in the European country are, on average, better educated than those who arrived during the peak of labour migration. This is possibly a result of increasing obstacles to non-EU labour migration due to more selective admission within this category. Figure 1 suggests that there are, not surprisingly, differences in pre-migration schooling levels across ethnic groups and city of destination, but overall, there are smaller differences in the entry educational attainment among the most recent arrival cohort.

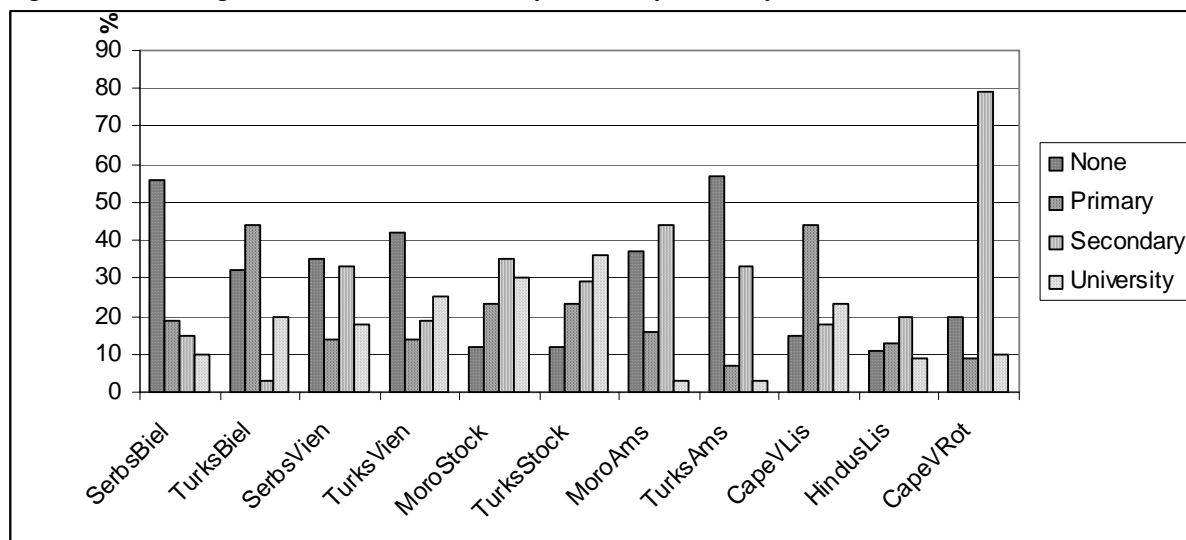
4.2. Post-migration education of foreign-born

Another important issue we would like to address in this paper is the extent to which immigrants invest in post-migration education. Table 1 shows the highest schooling level immigrants obtained in the host country by ethnic group and city of residence. As can be seen in Table 1, after entering the host country, a considerable share of immigrants chooses to invest in post-migration education. The overall percentage of immigrants who obtained some post-migration education for each of the immigrant group in the six cities is lesser than two fifths (38%). This is because most of the foreign-born immigrants consisted of early waves of mainly young men, labour workers who arrived in Western industrial countries already in the 1950s and 1960s and who started to work almost immodestly after a short introduction. ...?

Figure 2 shows that those Turkish immigrants in Stockholm who have invested in some post-migration education have the highest proportion who further their education after arriving in Stockholm, 36 percent invested in tertiary education, 29 percent in second education and 23 percent have highest primary education. Swedish studies also showed that over 80 percent of labour migrants have invested in Swedish schooling.⁶ Tied movers appear to have invested more heavily in lower educational levels, without continuing on to university, at least among the earlier cohorts.

⁶ See Hansen *et al.* (2003).

Figure 2 Post-migration education level by ethnicity and city, 2004



Source: LIMTS-survey data 2004.

Table 1 Distribution of post-migration education by ethnic group and city of residence, 2004

| City | Bielefeld | Vienna | Stockholm | Lisbon | Amsterdam | Rotterdam | Average |
|------------|-----------|--------|-----------|--------|-----------|-----------|---------|
| None | 43 | 39 | 12 | 17 | 48 | 20 | 27 |
| Primary | 32 | 14 | 23 | 39 | 11 | 7 | 22 |
| Secondary | 9 | 25 | 32 | 26 | 38 | 65 | 31 |
| University | 16 | 22 | 33 | 22 | 3 | 8 | 20 |
| Total | 100 | 100 | 100 | 100 | 100 | 100 | 100 |

Source: LIMTS-survey data 2004.

Foreign-born immigrants invested slightly more in secondary than in university education, especially those from the earliest cohorts, invested quite heavily in university education. One possible reason we observe these differences across entry categories may be that immigrant groups arrive with different levels of pre-migration education, as shown in the previous section in Figure 1. In next section, we turn to the issue of the role of entry educational attainment levels on post-migration investment in schooling.

The difference in post-migration educational attainment among immigrant groups in most European countries is at least partially a result of differences in initial educational levels upon arrival in the host country. In comparing figure 1 and Figure 2, one can see the difference between pre- and post-migration educational levels as of 2004. These figures suggest that the majority of the immigrants who do choose to further invest in post-migration education really do so, at least, at the level they had in the home country or one level above.

For example, among Turkish and Moroccan immigrants in both Amsterdam and Stockholm who arrived with only primary schooling, probably a large proportion of them chose to invest in post-migration primary education; for example, 28 percent of Turkish immigrants in Stockholm increased their schooling level to secondary education and 36 percent invested in university education. The corresponding figures for Moroccans in Stockholm are 35 percent and 30 percent respectively. The educational levels are quite similar for Moroccan and Turkish immigrants in and labour migrants who also enter Sweden with only primary schooling. Even in Amsterdam, these two ethnic group show quite similar patterns, but here most them arrived with no-education at all or had only primary education.

Hence, very few (3%) of these two groups in Amsterdam invested in university education, however, nearly two fifths (48%) obtained secondary education. Thus, comparing Moroccans' and Turks' pre-migration education with their post-migration education, one can see that nearly half (49%) of the Turks had at arrival in the host country only primary education and only 11 percent had secondary education, and even fewer had university education. Now their post-migration secondary education level has improved significantly, but their university educational level has change not changed at all, with around three percent. As for Moroccans in Amsterdam, over two thirds (65%) have arrived with no education at all and 11 percent had only primary education. Their post-migration education has changed significantly, for example, their secondary education has increased from 11 percent to 35 percent as of 2004. But, like Turks in Amsterdam, their university education remains very low.

As for Turkish and Serb immigrant groups in Bielefeld and Vienna, also here their post-migration education behaviour have, more or less, a similar pattern. Both groups arrived in their host societies with a high proportion of individuals who had only primary education, 55 percent for Turks in Vienna and 47 percent in Bielefeld, while the corresponding figures for Serbs are 42 percent and 48 percent respectively. Furthermore, 49 percent of Serbs in Bielefeld and 41 percent in Vienna arrived only with secondary schooling. Again in comparing these two ethnic groups' pre-and post-migration it seem likely that both groups have improved their educational levels during their stay in Europe. Serbs have mainly invested in secondary education in both Bielefeld and Vienna, while proportionally more Turks invested in university education.

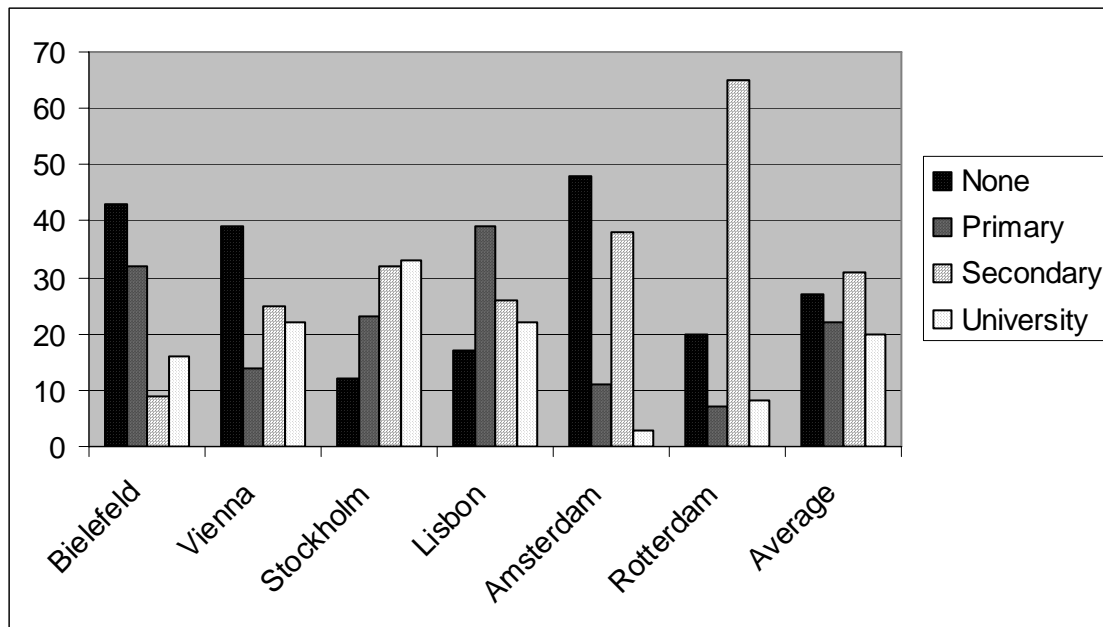
As for Cape Verdians in Rotterdam and Lisbon, and Hindus in Lisbon, their situation is slightly different from the other large immigrant groups. A significant majority of Cape Verdians in both Lisbon and Rotterdam arrived with only primary education, 80 percent and 46 percent respectively. It seems likely that a significant proportion of this has invested in further education, namely, secondary education, but their university education remained low, compared to other ethnic groups. As for Hindus in Lisbon, even they have arrived in a large majority (73%) with only primary education, however, many of these has obviously invested in second education (20%) in Lisbon, but also in university education (9%).

It was suggested in this paper that recent immigrants like Cape Verdians and Hindus would arrive in Europe with higher educational levels than early migrant works such as Moroccans, Serbs and Turks. Obviously so is not the case. Not only that it seems also that a large proportion of the early and the large migrant waves have invested more in further education, particularly in Stockholm, Bielefeld and Vienna, but surprisingly not in Amsterdam. There two possible explanations. One is immigration policy in the host country and the other could be geographical distance

Up to now, we have only discussed the situation where immigrants try to further improve their education to next level in an educational system. At the other end of the educational spectrum, immigrants who arrive with a secondary or university education (degree), we observed, at least in Stockholm, that a sizeable proportion, about one-fifth, invested in an education level *below* the entry level. This is more prevalent among Turkish immigrants than among the Moroccan immigrants. A plausible explanation might be that the lack of transferability of education obtained in the country of birth. Swedish language may also be a determinant in which the enrolment in lower education levels helps immigrants improving their language ability and hence increase transferability of existing foreign acquired educational attainment. Overall, Figure 3 shows that the vast majority of immigrants do

choose to make some investments in post-migration education after arrival in destination country.

Figure 3 Immigrant post-migration educational level by city, 2004



Source: LIMITS survey, 2004.

The discussion so far has only considered interethnic differences in education, i.e. across immigrant groups by city of residence. We would also like to compare how immigrants' educational attainment level changes over time relative to natives'. To do so, we need data on native-born population. But our LIMITS-Survey data do not include such data. However, apart from foreign-born respondents, our data encompasses also the children of the respondents. In next section, we will assess educational attainment of the second-generation immigrants and in some cases compare it with that of foreign-born parents

4.3. Educational Level of the Parent and Child

In this section, we assess educational attainment of children of foreign-born immigrants by trying to answer the questions raised in the beginning of this study: Whether immigrant parental education has a significant influence on children's educational attainment? To what extent do parental and ethnic influences affect on educational attainment of their children? Whether there is a large difference between educational levels of first- and second-generation immigrants?

Given the importance of parental education in the children's education achievement one would expect immigrant children to start in the educational system with a disadvantage deriving from their parents' lack of familiarity with the schooling system.

To answer these questions, we need information on the education attainments of both parents and children. But before succeeding into empirical data, we have some clarification to make concerning data restrictions. One such restriction is that in this section, we only analyse educational attainment of those children whose age is 18 years and older, and thus exclude those under the age of 18 years old. The reason for this restriction is that we assume that all

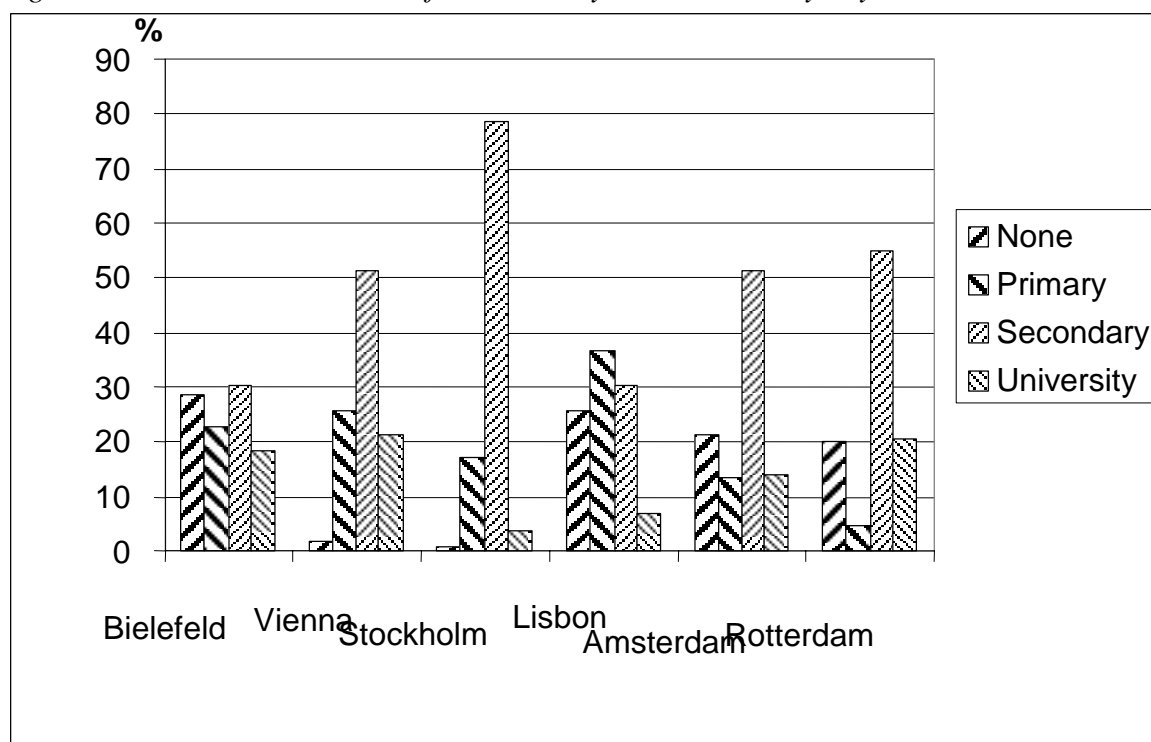
those children who are born in Europe or arrived in the host country before the school-ages have accomplished primary schooling. This is because the latter is compensatory in the countries involved in this study. Since we want to compare first- and second-generation education attainments and since the majority of the first-generation immigrants arrived with primary education, the focus in this section is mainly on post-primary educational profiles. One problem, however, is that there are children who were born abroad and immigrated to join their parents in the destination country. Some of these children might have not accomplished the primary school before immigrating into the new country. Since only a small minority falls within this category, its impact is also minimal and does not effect the result much.

To compare parents' education with children's education, we divided the parents into two categories: those with no education and those with education. There are, within the entire sample, 3339 parents (1650 fathers and 1689 mothers) with children of over 17 years. Figure 4 shows that only about one-third (36 %) of these parents have some education while nearly two thirds (64 %) have no education at all. Not surprisingly, mothers are less educated than fathers, only one-fourth of them have some education. Of course, this is a problem since it is mothers who normally take care of children's education, at least, at low ages.

4.3.1. Education of children 18 years old and over

Before investigating whether parental education effects children's education, we present children's education attainments by city and ethnicity.

Figure 4 Education attainment of children 18 years and over by city, 2004



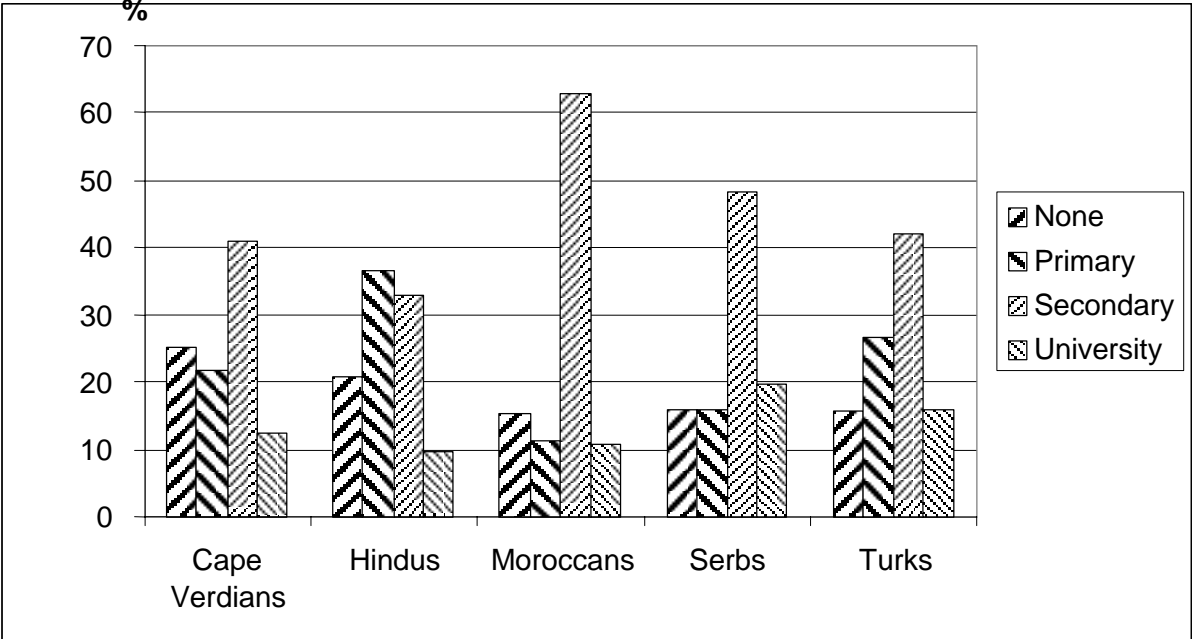
Source: LIMITS survey, 2004.

Figure 4 depicts distribution of children's education by city of residence. Overall, it reveals that a vast majority (82 %) of immigrant children, aged 18 year old and over, have acquire some education in the receiving county, and that only less than one-fifth of children have no

education. This does not, however, mean that those children who have not acquired any post-migration education have no education at all, rather, they may have already completed their education before entering the host country. Figure 4, further reveals that children of immigrant in Bielefeld and Lisbon are slightly less educated than those in Rotterdam and Amsterdam. The children in Stockholm and Vienna seem to have received not only more education but also higher education than children in the other city in this study. One plausible explanation for the more educated children, at least in Stockholm, could be that most of these children were born in Sweden where the opportunity to get a high education is high.

Figure 5 illustrates the differences in children’s education attainment by ethnic group. From the figure, one can see that there large differences in children’s education when comparing across ethnic groups. Among the Cape Verdians immigrant community, we can see that about one in four child has not received any post-migration education, that one in five has only received primary education, that two-fifths have received secondary education and that about 12 percent have achieved university education. Children in the Hindu community show similar pattern as that of the Cape Verdians. Moroccan children have mainly accomplished secondary education, while Serb and Turkish children show a similar educational pattern, with a slightly higher proportion with university education. One question will investigate below is whether this pattern persists when we examine children’s education in relation to parental education and ethnic background.

Figure 5 Education attainment of children 18 year old and over, by ethnic group, 2004



Source: LIMITS survey, 2004.

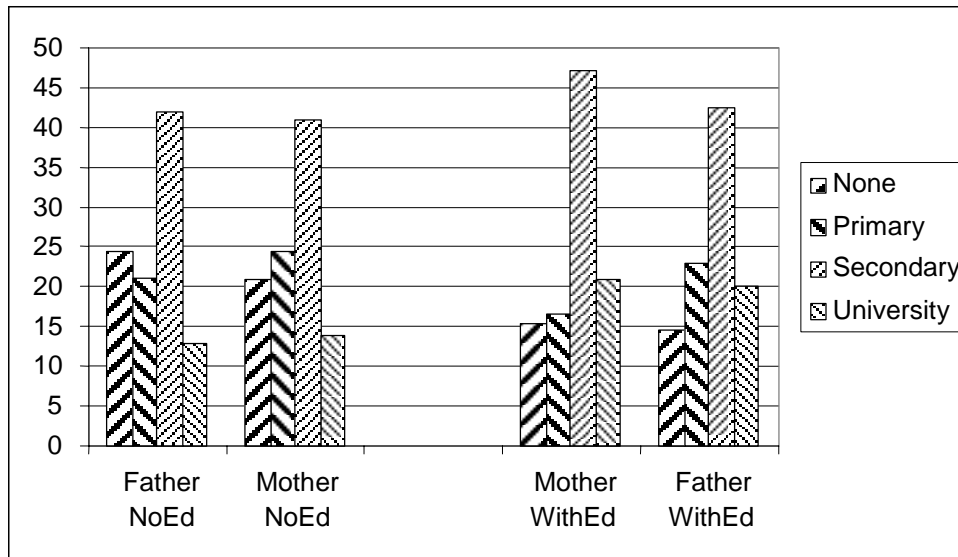
Having children’s education attainment in mind, we can now move onto to examine the effect of parental education on children’s education.

4.3.2. The Role of parental education on children’s education

In this section we will investigate the role of parent education status on children’s education (18 yeas +). At issue now is whether the children, in their educational profile, are similar or

different to their parents. To find out the answer, we provide the information obtained as answer the following question: What is the highest level of education reached by you daughter/son in the receiving county?

Figure 6 Children’s educational level by parental education, 2004



Source: LIMITS survey, 2004.

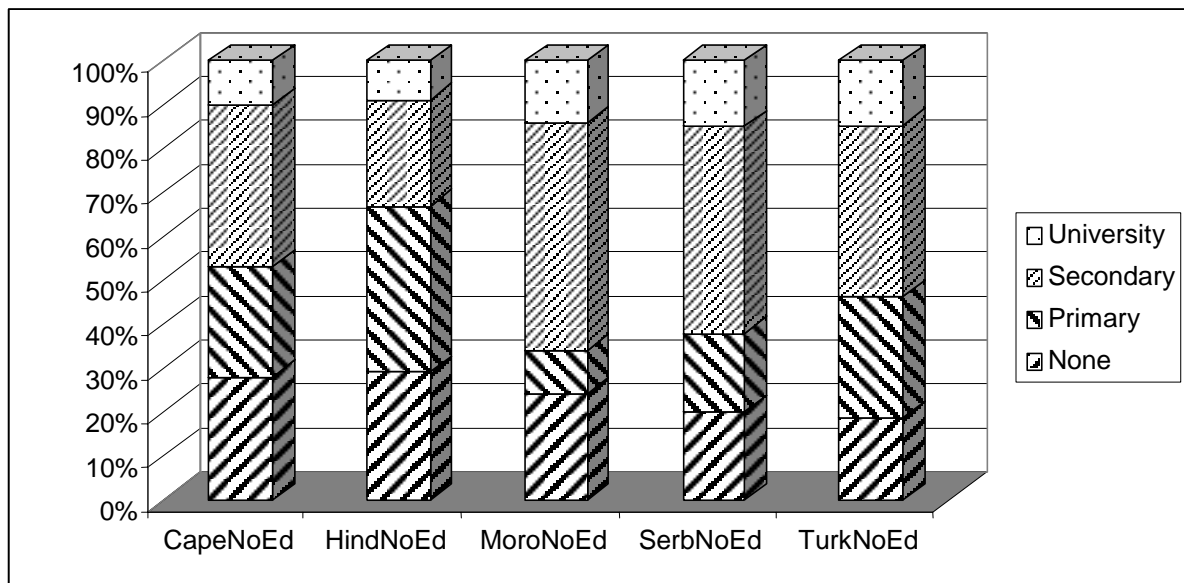
Figure 6 illustrates the relation between parental education and children’s education. Looking first at those parents (father and mother) who have no education (left side of the figure), we can see that there is hardly any difference in their children’s education behaviour; both children categories have relatively high secondary (42 % resp. 41 %) and tertiary (13 % resp. 14 %) education levels. Focusing now on the right side of the figure, we can observe that the situation of the children of educated fathers and mothers. Even here the education patterns of the two categories of children are similar, but with some important exceptions, namely that the children of educated mothers are slightly better educated than that of the educated fathers. This is true in both secondary and university education. Turning now to the comparison of the education status of the children of uneducated fathers and mother with that of educated fathers and mothers, we clearly see that the children of educated parents are slightly better educated than the children of uneducated parents.

4.3.3. Role of Parental education and Ethnic background on children’s education

In this section the variable ‘parental education’ is regrouped by ethnic background; in other words, parents are regrouped by educational status and by immigrant group, to see whether their educational status and ethnic background has an effect on educational achievement of their children.

Figure 7 shows the educational level of the children of none educated parents by ethnic group, for example, ‘CapeNoEd’ refers to none-educated Cape Verdian parents, which shows that one-fifth of these children have no education, about 26 percent have only primary education, 36 percent have secondary education and about 14 percent have university education. The situation for the children with Hindu background is somewhat different; they are less educated than the children with Cape Verdian background. Comparing children with different ethnic background, children with Moroccan background seem to be the most educated among these five ethnic groups. They are followed by the children of Serb and Turkish background.

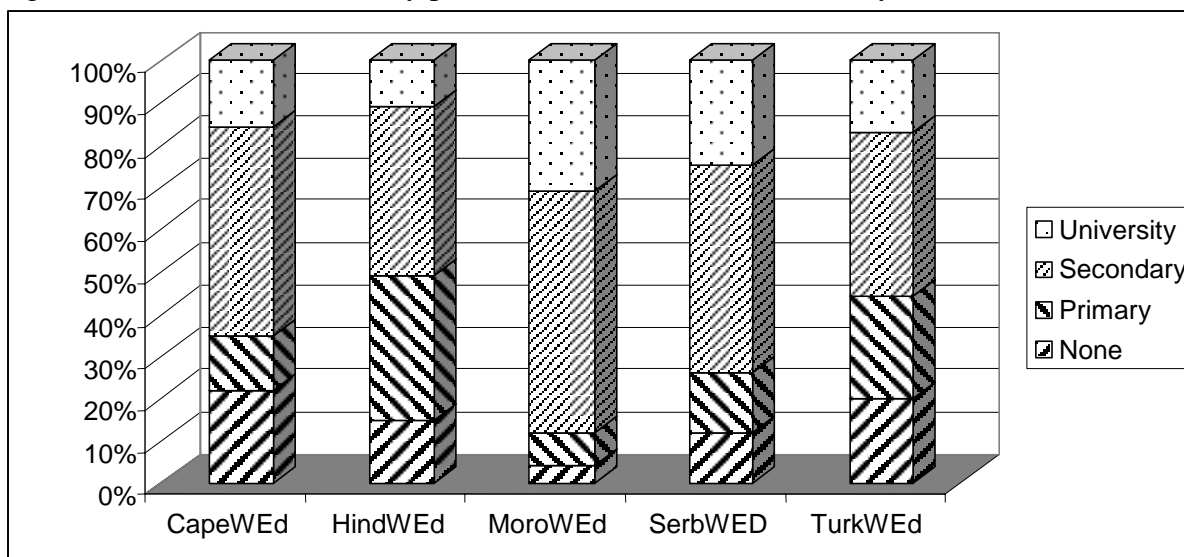
Figure 7 Children's education by parents with no education and ethnicity, 2004



Source: LIMITS survey, 2004.

Figure 8, illustrates educational status of the children of educated parents by ethnicity. Figure 8 almost the same pattern as that in figure 7. There are, however, some important differences. First, the children of educated parents are slightly more educated than those of uneducated parents. Second, still there are ethnic differences between the same ethnic groups, however, these differences have either increase or decreased between ethnic groups. For example, in figure 7, Cape Verdian children were significantly better educated than Hindu children, the difference between them has now decreased significantly.

Figure 8 Children's education by parents with education and ethnicity



Source: LIMITS survey, 2004.

4.3.4. Impact of Parent Education on Children's Education

In this section, we investigated the following question: Whether immigrant parental education has a significant influence on children's educational attainment? In order to examine this

issue, we used information provided by the parents (respondents) about their children's education. This is illustrated in Figure 5, which reveals that nearly almost all of second-generation immigrants have some education, but surprisingly about one-fifth of them were reported have no education at all. One explanation might be that these have that a vast majority of them has post-primary education, and that parents' education has only a slight impact on children's secondary education, but that parental has a significant impact on university education of their children.⁷

4.4. Comparing educational level of First and Second Generation Immigrants

Now we have analysed educational attainment of both first and second generation immigrants, can we try to answer the third question mentioned in the beginning of this section: Whether there is a large difference been educational level of first- and second-generation immigrants? Whether there

Our findings suggest that second-generation immigrants in general have high educational attainment. Consistent with previous research findings, the educational attainment of the second generation immigrants are relatively high. Children's education cannot entirely be explained by differences of parental education and ethnic composition. Generally speaking, educational levels vary with ethnic group and by city of residence. But even here parents' educational level appears to be the key factor that determines the education levels of second-generation immigrants. Furthermore, this gap is biggest among individuals from low-education backgrounds. In contrast, essentially the entire gap between the first and second generations can be explained with parental education differences. The initial analysis in this study suggests that this pattern is present within many ethnic origin groups.

4.5. Attainment of Vocational Education

Table 2, Table 3 and Table 4 (see Annex) deal with the level of vocational education achieved in country of origin, third country and host country.

Table 2 shows the highest level of vocational education achieved in country of origin by city and group. About 77% of the respondents did not have vocational education in their country of origin. About 12% had training at the work place, while 8% and 2% have apprenticeship and university entrance education respectively. Serbians and Turks immigrants had more pre migration vocational education than the rest of study group. The great majority of them received their vocational education through training at the work place (non-formalised training that was part of everyday work practices).

Table 3 the highest level of vocational education achieved in third countries. About 94% of the respondents did not attend vocational education in the third countries, 2% had training at work place, 2% apprenticeship and 2% collage or university entrance exam. Of all the ethnic groups it is the Serbians, followed by Turks, who had this type of vocational education.

Table 4 illustrates the highest vocational education achieved in host country. We have information for about 32% of the sample survey. Of the observed samples, about 46% did not have vocational education, 16% have received training at the work place, 25% have apprenticeship, while 13% have collage or university entrance exam. Serbians have the highest percent of participation in post migration vocational education (76%), compared to

⁷ Note, however, that potentially important variation in the type of subjects studied at the secondary, post-secondary or tertiary levels are not examined in this paper.

Cape Verdians (60%), Moroccans (56%), Turks (48%), and Hindus (28%). When one compares the same ethnic group in the different cities, the Serbians in Bielefeld have the highest participation in vocational education than their counterpart in Vienna, 89% and 56% respectively. The Cape Verdians in Rotterdam have the highest percentage of participation (81%), than the Lisbon Cape Verdians (47%). The Moroccans in Stockholm have more participation (62%), than the Moroccans in Amsterdam (45%). The Turks in Bielefeld and Vienna have more participation than the Turks in Stockholm. There is variation across the cities and this may be related to the difference in institutional context (vocational education system and policy) and city opportunities of the respective countries.

5. Conclusion

The study reveals several surprising patterns. First, a vast majority of foreign-born immigrants have at least primary education at the time they entered the host country. Hence, contrary to what is usually assumed, only a small proportion of migrants who arrived in European cities were illiterate or poorly-educated people. A large majority of them had relatively low (only primary) educational attainments at arrival in the host country, particularly those Moroccans and Turks who arrived in Amsterdam. The analysis also reveals large interethnic differences by city of assessment. However, these inter-city differences began to decrease significantly with improvement of post-migration education.

In contrast, second-generation immigrants, as a group, have on average more schooling than the remaining native-born population. This is particularly positive effect of second-generation individuals with two immigrant parents, but not of individuals with parents with no education. Further, this gap is concentrated among individuals from low-education backgrounds. The overall cross-generational pattern is common to many ethnic origin groups.

The relationship between the characteristics of immigrants and the educational behaviour of their children is not yet fully understood. Generally speaking, it is likely that parental education has no significant influence on children's education. While educated mothers have only slightly influenced their children's education, fathers' education has hardly any influence. There is, however, some magic power of having immigrant parents that often translates into higher than average educational attainment for second-generation immigrants as a group. This advantage is then reflected in educational outcomes of subsequent generations through known channels, mainly parental education. Although this trend is not general for all migrant groups in this study, other studies immigration has thus far had a positive impact on average education levels of many second-generation in many European countries.

Moving to an examination of the role of pre-migration educational level in influencing further investment in post-migration education, we see a clear positive effect. This positive effect is likely to be the result of several factors. The first is that pre-migration education may be a revealed preference for education itself, and as such would result in further educational investment in the destination country. Another reason for this relationship may well be that few foreign-born could transfer their pre-migration, skills and professional experiences between country of origin and country of destination. Moreover, it seems that some cities integration policy has a positive effect on post-migration education.

Annex:

Table 2: Highest level of vocational education achieved in country of origin by city and ethnic group (in number and percent)

| | BieSer | | BieTur | | BieTotal | | VieSer | | VieTur | | VieTotal | | LisCap | | LisHin | | LisTotal | | AmsMor | | AmsTur | | AmsTotal | | RotCap | | |
|-----------------------------------|--------|-----|--------|-----|----------|-----|--------|-----|--------|-----|----------|-----|--------|-----|--------|-----|----------|-----|--------|-----|--------|-----|----------|-----|--------|-----|---|
| | N | % | N | % | N | % | N | % | N | % | N | % | N | % | N | % | N | % | N | % | N | % | N | % | N | % | |
| Does not apply | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Don't answer | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Don't know | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| None | 110 | 41 | 158 | 69 | 268 | 54 | 223 | 80 | 174 | 62 | 397 | 71 | 234 | 96 | 247 | 89 | 481 | 92 | 249 | 88 | 279 | 88 | 528 | 88 | 237 | 80 | |
| Training at the workplace | 52 | 19 | 44 | 19 | 96 | 19 | 13 | 5 | 40 | 14 | 53 | 9 | 8 | 3 | 21 | 8 | 29 | 6 | 35 | 12 | 37 | 12 | 72 | 12 | 59 | 20 | |
| Apprenticeship (with certificate) | 94 | 35 | 21 | 9 | 115 | 23 | 33 | 12 | 52 | 19 | 85 | 15 | 2 | 1 | 7 | 3 | 9 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| College or university degree | 12 | 4 | 7 | 3 | 19 | 4 | 10 | 4 | 13 | 5 | 23 | 4 | 1 | 0 | 3 | 1 | 4 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Total | 268 | 100 | 230 | 100 | 498 | 100 | 279 | 100 | 279 | 100 | 558 | 100 | 245 | 100 | 278 | 100 | 523 | 100 | 284 | 100 | 316 | 100 | 600 | 100 | 296 | 100 | |

Highest level of vocational education achieved in country of origin by city and ethnic group (in number and percent) Ethnic Group Total

| | Cape Verdians | | Hindus | | Moroccans | | Serbians | | Turks | | Total | |
|-----------------------------------|---------------|-----|--------|-----|-----------|-----|----------|-----|-------|-----|-------|-----|
| | N | % | N | % | N | % | N | % | N | % | N | % |
| Does not apply | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Don't answer | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Don't know | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| None | 471 | 87 | 247 | 89 | 249 | 88 | 333 | 61 | 611 | 74 | 1911 | 77 |
| Training at the workplace | 67 | 12 | 21 | 8 | 35 | 12 | 65 | 12 | 121 | 15 | 309 | 12 |
| Apprenticeship (with certificate) | 2 | 0 | 7 | 3 | 0 | 0 | 127 | 23 | 73 | 9 | 209 | 8 |
| College or university degree | 1 | 0 | 3 | 1 | 0 | 0 | 22 | 4 | 20 | 2 | 46 | 2 |
| Total | 541 | 100 | 278 | 100 | 284 | 100 | 547 | 100 | 825 | 100 | 2475 | 100 |

Source: LIMITS survey, 2004.

Table 3: Highest level of vocational education achieved in 3rd country by city and ethnic group (in number and percent)

| | BieSer | | BieTur | | BieTotal | | VieSer | | VieTur | | VieTotal | | LisCap | | LisHin | | LisTotal | | AmsMor | | AmsTur | | AmsTotal | | RotCap | | |
|-----------------------------------|--------|-----|--------|-----|----------|-----|--------|-----|--------|-----|----------|-----|--------|-----|--------|-----|----------|-----|--------|-----|--------|-----|----------|-----|--------|-----|---|
| | N | % | N | % | N | % | N | % | N | % | N | % | N | % | N | % | N | % | N | % | N | % | N | % | N | % | |
| Does not apply | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Don't answer | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Don't know | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| None | 24 | 73 | 3 | 50 | 27 | 69 | 7 | 88 | 2 | 29 | 9 | 60 | 13 | 93 | 27 | 93 | 40 | 93 | 282 | 99 | 310 | 99 | 592 | 99 | 267 | 91 | |
| Training at the workplace | 7 | 21 | 2 | 33 | 9 | 23 | 0 | 0 | 2 | 29 | 2 | 13 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 1 | 2 | 0 | 2 | 1 | |
| Apprenticeship (with certificate) | 1 | 3 | 1 | 17 | 2 | 5 | 1 | 13 | 2 | 29 | 3 | 20 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 1 | 2 | 1 | 4 | 1 | 14 | 5 | |
| College or university degree | 1 | 3 | 0 | 0 | 1 | 3 | 0 | 0 | 1 | 14 | 1 | 7 | 1 | 7 | 2 | 7 | 3 | 7 | 0 | 0 | 0 | 0 | 0 | 0 | 10 | 3 | |
| Total | 33 | 100 | 6 | 100 | 39 | 100 | 8 | 100 | 7 | 100 | 15 | 100 | 14 | 100 | 29 | 100 | 43 | 100 | 284 | 100 | 314 | 100 | 598 | 100 | 293 | 100 | |

Ethnic Group Total

| | Cape Verdians | | Hindus | | Moroccans | | Serbians | | Turks | | Total | |
|-----------------------------------|---------------|-----|--------|-----|-----------|-----|----------|-----|-------|-----|-------|-----|
| | N | % | N | % | N | % | N | % | N | % | N | % |
| Does not apply | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Don't answer | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Don't know | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| None | 280 | 91 | 27 | 93 | 282 | 99 | 31 | 76 | 315 | 96 | 935 | 95 |
| Training at the workplace | 2 | 1 | 0 | 0 | 0 | 0 | 7 | 17 | 6 | 2 | 15 | 2 |
| Apprenticeship (with certificate) | 14 | 5 | 0 | 0 | 2 | 1 | 2 | 5 | 5 | 2 | 23 | 2 |
| College or university degree | 11 | 4 | 2 | 7 | 0 | 0 | 1 | 2 | 1 | 0 | 15 | 2 |
| Total | 307 | 100 | 29 | 100 | 284 | 100 | 41 | 100 | 327 | 100 | 988 | 100 |

Source: LIMITS survey, 2004.

Table 4: Highest level of vocational education achieved in host country by city and ethnic group (in number and percent)

| | BieSer | | BieTur | | BieTotal | | VieSer | | VieTur | | VieTotal | | StoMor | | StoTur | | StoTotal | | LisCap | | LisHin | | LisTotal | | AmsMor | | AmsTur | | AmsTotal | | RotCap | |
|-----------------------------------|--------|-----|--------|-----|----------|-----|--------|-----|--------|-----|----------|-----|--------|-----|--------|-----|----------|-----|--------|-----|--------|-----|----------|-----|--------|-----|--------|-----|----------|-----|--------|-----|
| | N | % | N | % | N | % | N | % | N | % | N | % | N | % | N | % | N | % | N | % | N | % | N | % | N | % | N | % | N | % | N | % |
| Does not apply | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Don't know | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| None | 9 | 11 | 39 | 43 | 48 | 28 | 22 | 44 | 31 | 39 | 53 | 41 | 56 | 38 | 89 | 51 | 145 | 45 | 66 | 63 | 34 | 72 | 100 | 66 | 40 | 55 | 74 | 75 | 114 | 66 | 21 | 19 |
| Training at the workplace | 35 | 44 | 11 | 12 | 46 | 27 | 15 | 30 | 11 | 14 | 26 | 20 | 49 | 34 | 25 | 14 | 74 | 23 | 21 | 20 | 5 | 11 | 26 | 17 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Apprenticeship (with certificate) | 29 | 36 | 29 | 32 | 58 | 34 | 5 | 10 | 24 | 30 | 29 | 22 | 18 | 12 | 34 | 20 | 52 | 16 | 13 | 12 | 5 | 11 | 18 | 12 | 16 | 22 | 10 | 10 | 26 | 15 | 79 | 71 |
| College or university degree | 7 | 9 | 11 | 12 | 18 | 11 | 8 | 16 | 13 | 16 | 21 | 16 | 23 | 16 | 26 | 15 | 49 | 15 | 5 | 5 | 3 | 6 | 8 | 5 | 17 | 23 | 15 | 15 | 32 | 19 | 11 | 10 |
| Total | 80 | 100 | 90 | 100 | 170 | 100 | 50 | 100 | 79 | 100 | 129 | 100 | 146 | 100 | 174 | 100 | 320 | 100 | 105 | 100 | 47 | 100 | 152 | 100 | 73 | 100 | 99 | 100 | 172 | 100 | 111 | 100 |

| | Cape Verdians | | Hindus | | Moroccans | | Serbians | | Turks | | Total | |
|-----------------------------------|---------------|-----|--------|-----|-----------|-----|----------|-----|-------|-----|-------|-----|
| | N | % | N | % | N | % | N | % | N | % | N | % |
| Does not apply | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Don't know | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| None | 87 | 40 | 34 | 72 | 96 | 44 | 31 | 24 | 233 | 53 | 481 | 46 |
| Training at the workplace | 21 | 10 | 5 | 11 | 49 | 22 | 50 | 38 | 47 | 11 | 172 | 16 |
| Apprenticeship (with certificate) | 92 | 43 | 5 | 11 | 34 | 16 | 34 | 26 | 97 | 22 | 262 | 25 |
| College or university degree | 16 | 7 | 3 | 6 | 40 | 18 | 15 | 12 | 65 | 15 | 139 | 13 |
| Total | 216 | 100 | 47 | 100 | 219 | 100 | 130 | 100 | 442 | 100 | 1054 | 100 |

Source: LIMITS survey, 2004.

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