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Immigration in a High Unemployment Economy: The Recent Danish Experience

Peder J. Pedersen

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Peder J. Pedersen
CLS and Department of Economics, University of Aarhus, Denmark and IZA, Bonn

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IZA

P.O. Box 7240
D-53072 Bonn
Germany

Tel.: +49-228-3894-0
Fax: +49-228-3894-210
Email: iza@iza.org

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ABSTRACT

Immigration in a High Unemployment Economy: The Recent Danish Experience*

The purpose in this paper is to survey the course of immigration into Denmark and research and studies related to the problems encountered in this area. The first part of the paper describes the actual flows of migrants in the most recent decades. The directly job-related part of migration can not be identified precisely. A survey of research results indicate net migration flows towards other OECD countries is sensitive to cyclical indicators and thus mainly labour market related. The paper goes on to survey immigration policy and available evidence regarding the labour market integration of both 1. and 2. generation immigrants. Immigrants and refugees are recorded on average with much higher unemployment and much lower labour market participation than Danish citizens. The status in the late 1990s points to the pressing need for policy initiatives to improve this situation. Finally, the paper summarizes available results regarding the impact on public finances from immigration.

JEL Classification: J15, J61

Keywords: Migration history, worker flows, immigration policy, labour market integration, welfare issues

Peder J. Pedersen
Department of Economics
School of Economics and Management
University of Aarhus
Building 350
8000 Aarhus C
Denmark
Tel.: +45 8942 1581
Fax: +45 8613 6334
Email: ppedersen@econ.au.dk

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1. Introduction[2]

The share of people in Denmark who are foreign citizens or descendants of foreign citizens is close to the average European level. By 1998 4.7 per cent of the population were foreign citizens. The share of immigrants and refugees and descendants of immigrants and refugees, including people who have become Danish citizens, was 6.6 per cent of the total population at the beginning of 1998.

The post-war history of migration in Denmark falls into a number of phases each with specific characteristics. The early post-war period was characterized by net migration of Danish citizens, mainly to Australia and Canada. The background was a fairly high level of unemployment until the late 1950s compared with the full employment experience of most other Western European countries, cf. Pedersen (1996a). From the late 1950s to the first round of oil price shocks in 1974, the Danish labour market was characterized by full employment, close to a situation of excess demand for labour. The net migration of Danish citizens was at a low level. At the same time, guest workers came in mainly from Yugoslavia and Turkey. The end of full employment in 1974 was accompanied by a stop for guest worker immigration, however workers who had entered the country in the preceding period were allowed to stay. Many guest workers remained in Denmark and had after 1974 the option of family reunion as a new source of immigration.

Since 1954 Danish citizens have had access to free labour mobility between the Nordic countries and have since 1972 by entry to the European Economic Community had access also to the labour markets in the other member countries of the European Union. In that sense, Danish citizens had - until the entry by Finland and Sweden to the European Union - the broadest access to the labour markets in the rest of Europe. Actual mobility, as surveyed below, was however fairly low. At this low level, net mobility of Danish citizens responded to cyclical differences between Denmark and respectively the other Nordic countries and the other member countries of the European Union.

From the mid 1970s to the mid 1980s immigration was at a low level, dominated by family reunions among guest workers, of mainly Turkish origin. In the second half of the 1980s immigration increased again. Family reunions were still part of the picture, but at the same time the number of refugees increased strongly, mainly coming from Poland, Iran, Iraq, Lebanon and Sri Lanka. The final phase in the 1990s have also been dominated by an inflow of refugees, this time mainly coming from the former Yugoslavia and from Somalia.

In the following, Section 2 contains a more detailed survey of the aggregate migration to and

[2]This paper presents a selective review of the trends in international migration and related research in Denmark. The selection has been of mainly quantitative indicators and research with the exclusion of more qualitative studies of the problems and prospects connected with the process of moving to a new country.

from Denmark. Part of these flows are labour market related. The statistical sources have no indication of which part of the migration flows that are directly motivated by entry to a job, abroad or in Denmark. A major part of the mobility relative to the other Nordic countries and the other EU countries is however most probably labour market related or related to education. We therefore consider research concerning those flows in more detail in Section 2.

Section 3 contains a brief survey of the major trends in Danish immigration policy while Section 4 reviews a number of indicators of the labour market integration of immigrants and refugees. The same indicators are reviewed in relation to second generation immigrants, i.e. descendants of immigrants and refugees. Subsequently, Section 4 reviews the available research concerning labour market integration.

In Section 5 we summarize a number of welfare related issues concerning immigration, including results regarding the impact from immigration on public sector expenditures and tax revenue. Furthermore, this section reviews some results regarding the internal mobility in Denmark among immigrants and refugees. This is of special relevance concerning refugees who are initially dispersed fairly evenly throughout the country, but subsequently tend to move to urban neighbourhoods dominated by immigrants and refugees. Finally, a number of concluding comments are found in Section 6.

2. Aggregate Stocks and Flows of Migration

In 1998 the total number of immigrants and descendants was close to 347.000 persons[3]. Their distribution by region of origin is shown in Figure 1. Close to 200,000 persons are coming from or descend from people coming from different European countries, including Turkey, while close to 100.000 are from Asian countries. Figure 1 at the same time shows the increase in the stock between 1980 and 1998 relative to the 1998 stock[4]. It is evident that immigration from both Asia and Africa is a post 1980 phenomenon.

Figure 2 shows in the same way the 1998 stock and the change in the stock between 1980 and 1998 relative to the 1998 stock for a number of European regions and countries. Roughly the same number of immigrants and descendant come from the Nordic countries, from the EU countries, from ex-Yugoslavia and from Turkey. It is evident, however, that the increase in the stock of immigrants and descendants from ex-Yugoslavia and from Turkey is dominated by the

[3]The statistical terminology used by Statistics Denmark is to classify a person as an immigrant if she or he is born abroad by parents who both are non-Danish, or if one parent is non-Danish and the other is unknown. If both parents are unknown and the person is born abroad, she or he is also classified as an immigrant. Descendants are defined as persons born in Denmark by parents who both are of non-Danish origin. The country of origin is defined as the country where the person´s mother was born. Immigrants from a number of typical refugee countries are classified as refugees by their country of origin as there is no administrative classification in the statistical registers.

[4]For expositional reasons we use the terminal instead of the initial stock as the base.

development since 1980. For immigrants and descendants from Turkey the main factor behind the post 1980 development is family reunions, while the main factor in the case of ex-Yugoslavia is the war in the country, especially in Bosnia. Regarding the Nordic and the EU countries the stocks are nearly stationary in the post 1980 period.

Figure 1. The stock of immigrants and descendants in 1998 and the change in the stock between 1980 and 1998, relative to the 1998 stock.

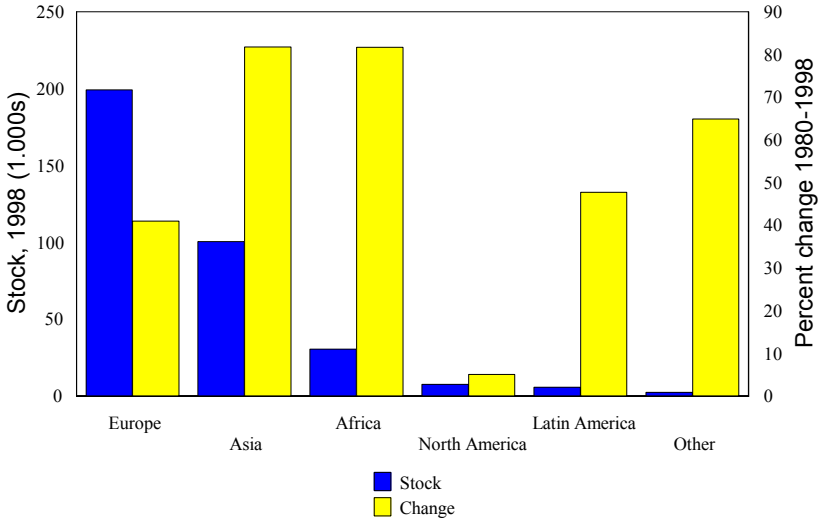
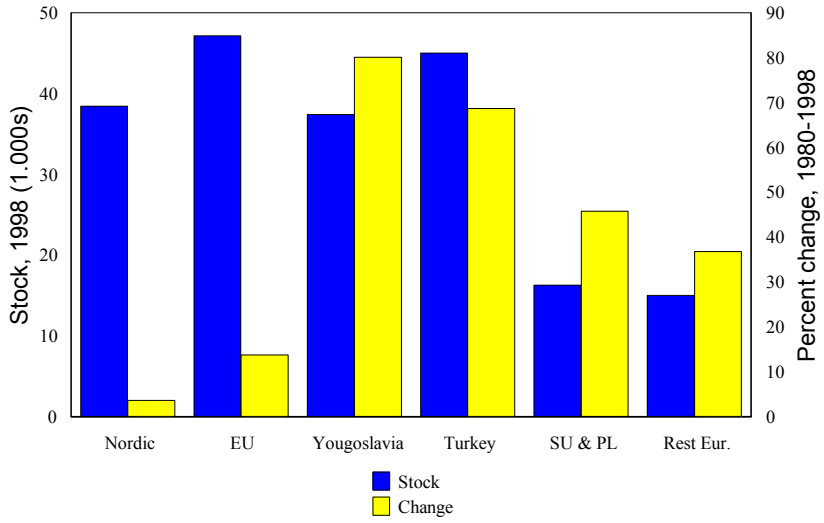
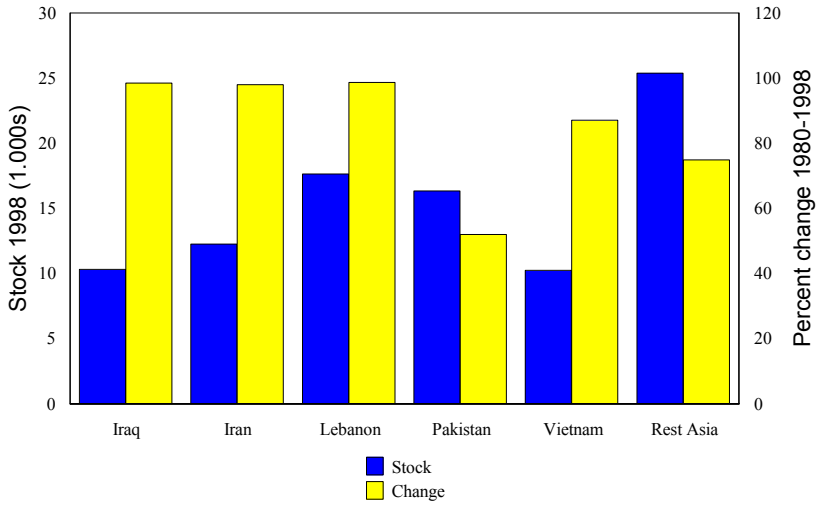


Figure 2. The stock of immigrants and descendants from European countries in 1998 and the change in the stock between 1980 and 1998, relative to the 1998 stock. (SU & PL are respectively the former Soviet Union and Poland)



Finally, Figure 3 shows the stock and the change in the stock for immigrants and descendants from a number of Asian countries. For people with Iraq, Iran and Lebanon as countries of origin, immigration is fully a post 1980 phenomenon. For people from Vietnam and from the rest of Asia the stock increase is predominantly a post 1980 development. Immigrants and descendants from Pakistan is the only group with a more significant presence prior to 1980.

Figure 3. The stock of immigrants and descendants from Asian countries in 1998 and the change in the stock between 1980 and 1998, relative to the 1998 stock.



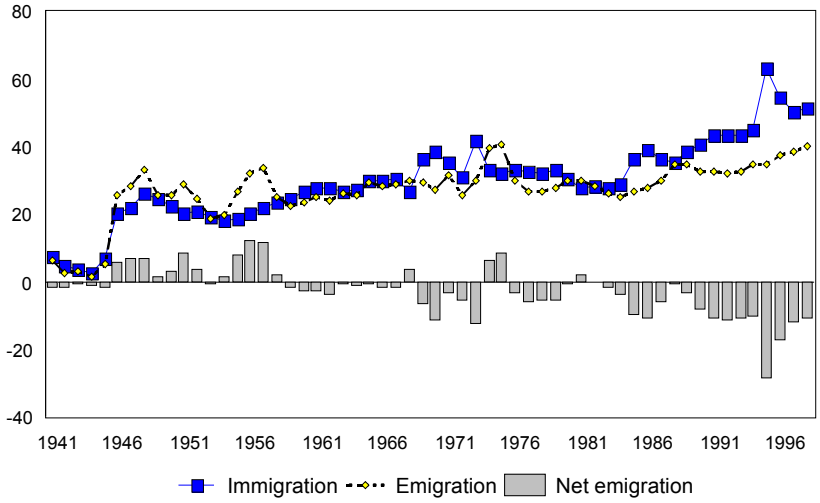
After this brief survey of the stocks and the changes in the stocks of immigrants and descendants we proceed to an equally brief survey of the migration flows between Denmark and the rest of the world. Figure 4 shows the long run trends in the migration flows during the last nearly 60 years. The figure includes all movements independent of the citizenship of the migrants. A number of episodes in recent migration history are evident from the Figure 4. In the post war years up to the end of the 1950s the situation was one of net emigration mostly to North America, New Zealand and Australia. The migration flow was mostly made up of Danish citizens with emigration motivated by a fairly high unemployment rate in Denmark up to the end of the 1950s in contrast to most other Western European countries.

This was followed by years of full employment or excess demand for labour up to 1973. In the first phase of those full employment years net migration was negligible. In the latter part, there was net immigration reflecting an inflow of guest workers. This came to an end in 1973 when the oil price shock implied an end to full employment which was accompanied by a stop to guest worker immigration.

Since 1973, there is only one episode of net emigration, i.e. in 1974-75, when Danish migration to Sweden occurred as a reaction to the steep increase in unemployment at home at the same time as labour demand in Sweden was unaffected by the international recession. In the remaining part

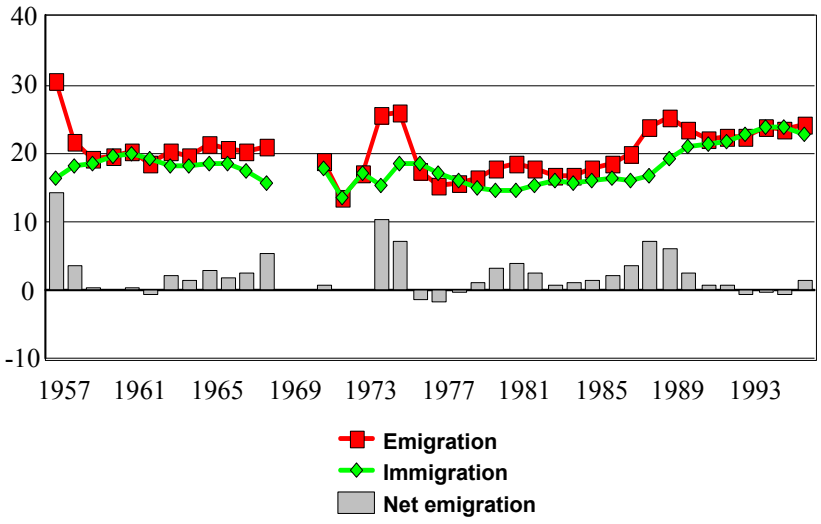
of the period since the mid 1970s, the flows are dominated by family reunions from the guest worker countries and especially after 1980 by an inflow of refugees, cf. below.

Figure 4. Migration flows. Denmark, 1941-1998.



Finally, Figure 5 illustrates the migration flows of Danish citizens during the most recent 40 years[5].

Figure 5. Migration flows of Danish citizens, 1957-1996.



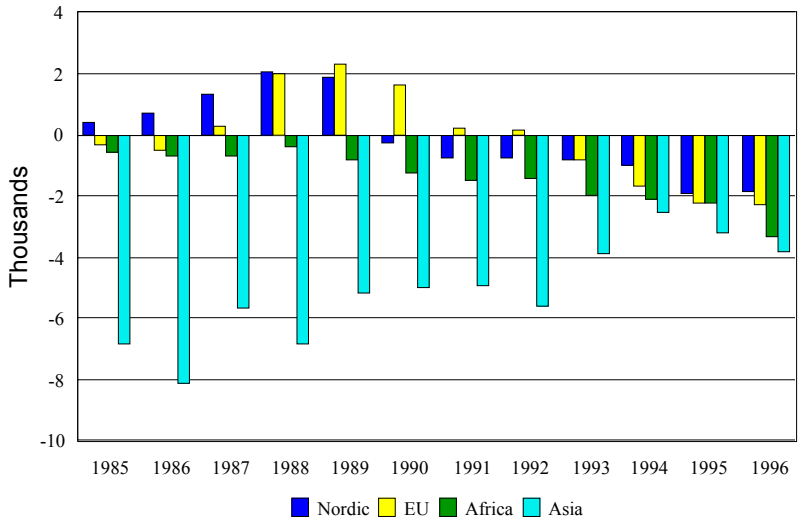
The levels of the gross flows are fairly low and the pattern of net emigration is roughly a

[5]Separate data on citizens and non-citizens are not available for the years 1969-1970.

reflection of varying cyclical conditions in the Danish economy with recessions in 1968, in 1974-75, around 1980 and finally from 1987 to 1993.

The net flows to four groups of countries during the most recent decade are shown in Figure 6. Net migration flows to the other Nordic and EU countries are approximately at the same level and follow the same pattern. During the deep recession in the late 1980s in the Danish economy, net emigration was positive both to the other Nordic and EU countries. From 1993 a strong cyclical upswing in the Danish economy was accompanied by a switch to net immigration from these country groups. Migration relative to the typical refugee nations follow a quite different pattern, with net immigration from Asian countries following a declining trend, while net immigration from Africa, especially from Somalia, follows an increasing trend.

Figure 6. Net emigration to other Nordic countries, EU countries, African and Asian countries, 1985-1996.



To summarize, we find a number of broad trends in the post war Danish migration history. Overall, the stock of people in the population being immigrants or descendants of immigrants has risen from a very low level to around 6-7 per cent in the late 1990s. The post war years fall into a number of distinct episodes. Up to the late 1950s, with fairly high unemployment, there was a net emigration of Danish citizens. In the subsequent full employment years, guest workers were coming from ex-Yugoslavia and Turkey. The oil price shock of 1974 was accompanied by a stop to guest worker immigration and a temporary migration of Danish citizens to Sweden. The main trends in the following quarter of a century has been immigration due to family reunions and an inflow of refugees, especially in the years after 1980.

2.1 Worker Flows

Available data do not make it possible to distinguish between flows followed immediately by entry to a job and other migration flows. Evidence in this area is consequently circumstantial and indirect. On the immigration side, people who arrived back in the 1960s and early 1970s entered jobs immediately. The later labour market history for this group is treated in Section 4. Refugees, on the other hand, by the nature of their motivation to migrate, did not represent a flow of workers like the first wave of immigrants from ex-Yugoslavia and Turkey. Problems related to their integration into the labour market are also discussed in Section 4.

The present section summarizes evidence on the flows between Denmark and the other Nordic countries and between Denmark and the other EU countries. As mentioned, there is no direct evidence in the data concerning which part of these flows that at the same time are flows to and from jobs. Econometric analyses in this area have implicitly assumed that differences in job opportunities and in unemployment rates have been the dominant motivating factors behind these flows.

As mentioned in the introduction, Danish citizens have had access to both the labour markets of the other Nordic countries, since 1954, and of the other EU countries since 1972. However, the actual migration flows have been fairly low all along. The broad aspects of mobility between the Nordic countries are surveyed in Fischer and Straubhaar (1996), which is a study celebrating the 40 years anniversary of the free Nordic labour market. One of the general conclusions in Fischer and Straubhaar (1996) is the low level of intra-Nordic mobility, with the big migration from Finland to Sweden in the 1960s and 1970s as the only exception. In the Danish context, the only exception is the increase in migration to Sweden in 1974/75 which however neutralised only a small part of the big cyclical decline in employment. Fischer and Straubhaar (1996) conjecture that something like 70 per cent of the intra-Nordic mobility has been directly job-related. Until the late 1970s migration flows were dominated by unskilled workers. We return to this aspect below in discussing a study with specific reference to skill migration after 1980. In their general discussion of migration determinants Fischer and Straubhaar (1996) conclude that unemployment and vacancy rate differentials have been the main determinants of intra-Nordic worker flows, while wage differences are found to be unimportant, cf. however the results from a disaggregate analysis below, Røed (1996). A final general conclusion is that return migration is very high in a Nordic context, indicating the temporary nature of a major part of the intra-Nordic migration flows.

In the Danish case, Fischer and Straubhaar (1996) stress the general low level of migration to other Nordic countries throughout the 15 years from the mid 1970s to 1990 where Denmark had a high and mostly increasing level of unemployment in contrast to the other Nordic countries. Lundborg (1991) concludes in a study of the intra-Nordic mobility flows that the "missing" Danish migration, with the 1974/75 episode as an exception, is due to the unemployment

insurance system, where benefits in the early 1980s were generous to unskilled workers and - practically - of indefinite duration.

A simple econometric analysis of the flow of migrants from Denmark to Norway and Sweden is found in Pedersen (1996b) covering the years 1970-1990[6]. The dependent variable is the annual net mobility. While Norwegian and Finnish migration to another Nordic country predominantly has been to Sweden, Danish residents have had a choice between going to Norway or to Sweden, conditional on a decision to migrate to another Nordic country[7]. A number of specifications were tried. The explanatory variables in the preferred specification of Danish net mobility to Sweden are the relative change in Danish unemployment with a positive sign, the absolute change in vacancies in Sweden, also with a positive sign, and the difference between the absolute changes in employment in Norway and Sweden. This last variable has a significantly negative coefficient indicating the option for choice between two destinations depending on labour market trends in the two countries. Pedersen (1996b) reports also return migration rates for different cohorts of emigrants by year of migration and finds an extremely stable pattern. This indicates that return migration is independent of the cyclical state of the home country at the time of return. The labour market variables are thus of primary importance only for the gross out-migration flows.

Some results concerning mobility between Denmark and the other EU countries are reported in Pedersen (1993). The period under study are the years from the early 1970s when Denmark joined the EU until 1990. The dependent variable is the net mobility of either residents or citizens of Denmark in relation to 6 other EU countries[8]. Net mobility is significantly related to the change in unemployment rates in Denmark and in the other EU countries along with the lagged level of net mobility. Alternative regressions use the growth rate differential between Denmark and the other EU countries as explanatory variable with slightly more significant results.

While the analyses reported above refer to aggregate migration flows, Pedersen (1993) and Schröder (1996) report results from studies of migration by skill for the years 1980-1989. The results regarding Denmark are part of a broader analysis including the three Scandinavian countries, cf. Pedersen (1996c). For all three countries, data were made available on the skill level of all migrants in the period[9]. It was possible, using this data set to construct intra-

[6]The flows in this analysis consist of residents in the country of origin without distinguishing between Danish and non-Danish citizens.

[7]In principle, Finland is also a potential destination. Mostly due to the language barrier flows to Finland have however been very small.

[8]Belgium, France, Germany, Italy, the Netherlands and the UK. Unemployment and growth rates are aggregated in the analysis to an EU average by use of Danish export weights.

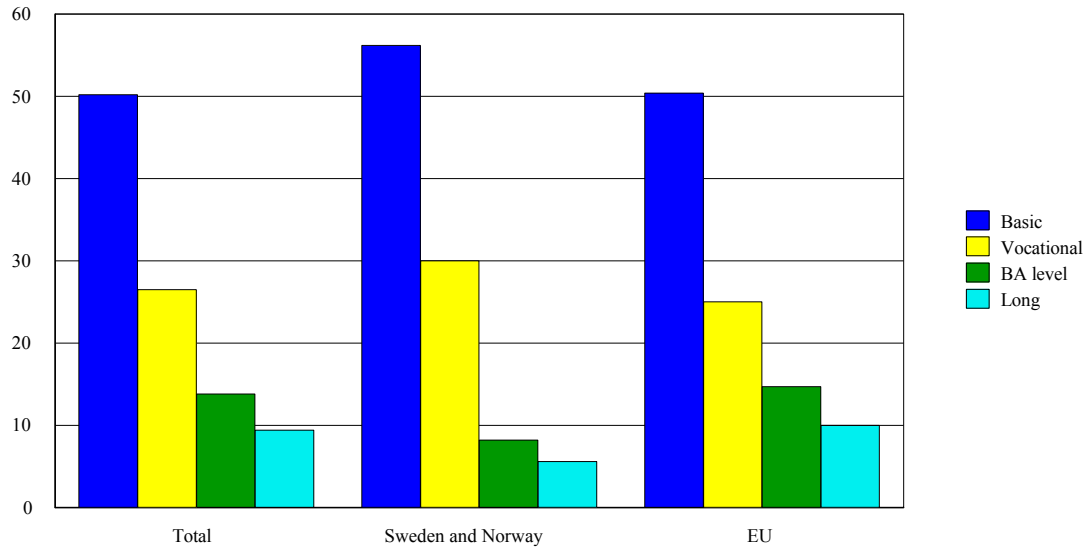
[9]These data refer to citizens of the three countries only. For non-Scandinavian citizens, comparable skill data were not available.

Scandinavian "skill mobility balances". The results from this part of the analysis are reported in Schröder (1996) and Røed (1996). The possibility to disaggregate the mobility flows by skill levels leads to some interesting results. The impact on mobility from unemployment rate differentials is declining with increasing educational levels. On the other hand, income or wage differentials have an increasing impact on mobility with increasing educational levels in contrast to the general conclusion regarding intra-Nordic migration flows in Fischer and Straubhaar (1996). For Denmark it was found in Røed (1996) that the EU membership had a negative impact on Danish mobility to the other Scandinavian countries for those with basic or college level education. For people with a university level education no such effect was found.

By level of education, the main difference regarding Danish emigration in the 1980s was found between people with a long theoretical education and all other educational groups who had lower migration rates which were fairly close to each other. For the group of highly educated people, the annual migration rate varied between 0.6 and 1.0 per cent.

Some characteristic differences are found concerning the choice of destination for migrants with different educational background. Figure 7 shows the composition on four different educational levels for the whole group of emigrants and for emigrants to respectively the Scandinavian and the EU countries.

Figure 7. The percentage skill composition of emigrants from Denmark by destination. 1989.

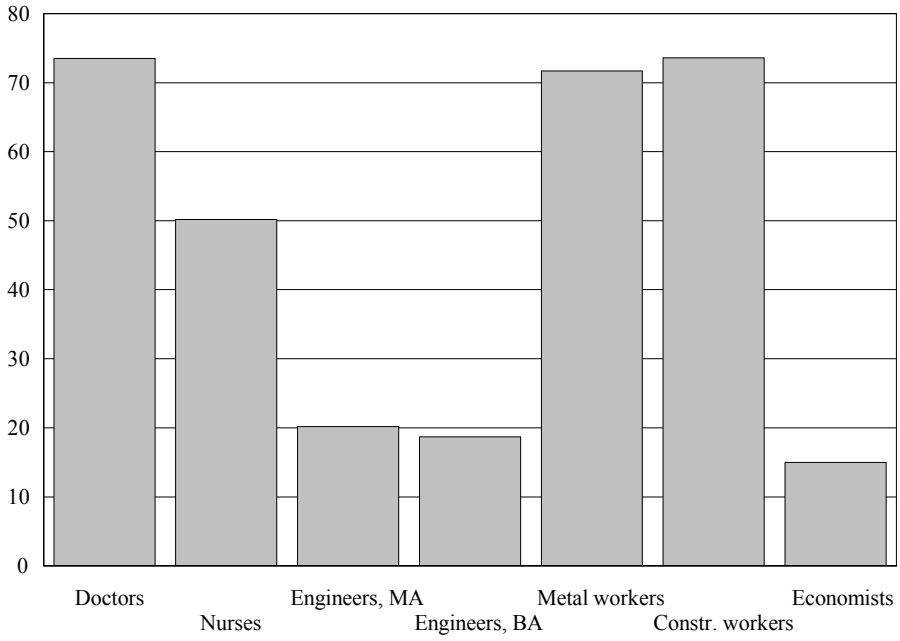


The main differences are the higher shares with basic and vocational training going to the Scandinavian countries, while a greater share of the migrants to the EU countries have medium or long theoretical educations.

In the 1980-89 study, seven "strategic" skill groups were analysed separately. For those seven

skill groups, Figure 8 illustrates the relative share in 1989 going to the other Scandinavian countries out of the total number emigrating either to the Scandinavian or the EU countries. Major differences are clearly visible with high Scandinavian shares for doctors and skilled workers and high EU shares for engineers and economists. Data on skill migration are unfortunately not available for more recent years than 1989. For the 1980s overall, Pedersen (1993) finds an increasing trend among emigrants in the share of people with medium or long theoretical educations who choose another EU country as destination.

Figure 8. The percentage share of the total number of emigrants from Denmark in specific skill groups who had a Scandinavian contry as destination. 1989.



Finally, concerning worker flows it was mentioned above that no precise statistical evidence is available regarding which part of migration flows that at the same time represents direct entry into jobs. In relation to mobility between Denmark and other OECD countries, the conjecture mentioned above was that about 70 per cent at the same time represented mobility into jobs. For the first wave of guest workers from Yugoslavia, Turkey and Pakistan in the late 1960s and early 1970s entry to - unskilled - jobs was close to 100 per cent. For the post-1974 immigration the share of those coming from non-OECD countries who entered a job immediately after arrival was much lower, but the precise level is not known. The labour market integration for those groups is treated below in Section 4.

3. Immigration Policy

Until now, there has not been a consistent long run immigration policy in Denmark. The area has, as in many other countries, been politically controversial regarding immigration from non-OECD

countries. This is not the case for migration to and from the other Nordic and EU countries, which is dominated by mobility to jobs or to education.

The entry of guest workers back in the 1960s and early 1970s was economically motivated. Entry was typically to unskilled jobs in the low end of the wage distribution. As mentioned above, this immigration came to an end with a legal change in 1973, the so-called guest worker stop. Since then, family reunions and descendants have entered into this group.

In the years after the guest worker stop, immigration from outside the OECD area was formally regulated by a mix of national legislation and obligations due to ratification of international refugee conventions. Refugees and asylum seekers who were granted a residence permit were in principle expected to enter the labour market and being able to provide for themselves and their family. To this end, a number of programmes were introduced consisting of language classes and labour market entry courses.

As evident from the survey in Section 4 of labour market integration, this ambition has not been fulfilled. Part of the explanation is that the major wave of immigration of refugees occurred in a period of high unemployment. Furthermore, the highly organized Danish labour market is characterized by a low variance in the wage distribution and a relatively high level of the adult minimum wages. Immigrants and refugees during this period were consequently met by many and great barriers, i.e. a high unemployment level, also for native born, insufficient knowledge of the language, and for many a lack of the necessary educational qualifications to pass the barrier created by the minimum wage. Beside these barriers, there may also exist discrimination by employers or potential colleagues.

The consequence of this has been that many immigrants and refugees have been provided for by cash income transfers for long periods of time. This is part of another problem regarding integration policy, based on the division of the financial responsibility regarding immigrants and refugees between the state and municipal authorities. Social welfare benefits including rent subsidies is a municipal expenditure. Thus, municipalities have an incentive to transfer immigrants and refugees to programmes financed by the state. However, battles between different administrative levels is however hardly an efficient way to realize a consistent long run labour market policy. Another area of political tension was related to the geographical distribution over the country of immigrants and refugees. The realized distribution soon became very uneven with the consequence that some municipalities had low or no expenditures in this area, whereas others came under financial pressure. Questions regarding the geographical distribution of immigrants and refugees are discussed further in Section 5.

Only recently, in 1998, the Parliament has enacted a new legal base concerning immigrants and refugees. In this new law, labour market integration is the main explicit objective. This is to be realized by a combined effort concerning language courses, education, labour market programmes and by creating a higher priority regarding the problem in the local communities

through a change in administrative responsibility towards the municipalities, away from the state and county administrations. It remains to be seen if this policy change becomes successful. The background in a cyclical upswing beginning in 1994 creates a better environment than back in the 1987-93 period when fairly great numbers of immigrants and refugees arrived during a deep recession of long duration.

4. Labour Market Integration of Immigrants

We begin this section with a brief survey of the labour market state of immigrants and refugees in the second half of the 1990s. Next, we proceed to an equally brief survey of the development in aggregate unemployment during the years since 1980 for Danish citizens and for immigrants and refugees. Finally, we summarize results from the relatively few econometric studies of unemployment dynamics and wages among immigrants and refugees from non-OECD countries, and among the relatively few second generation descendants of people in this group. Asylum seekers are not included in the statistical registers from which data are drawn before they receive a residence permit.

Figures 9a - 9c summarize the labour market situation at the beginning of 1997 for the major groups of immigrants and refugees by their country or region of origin. For comparison the

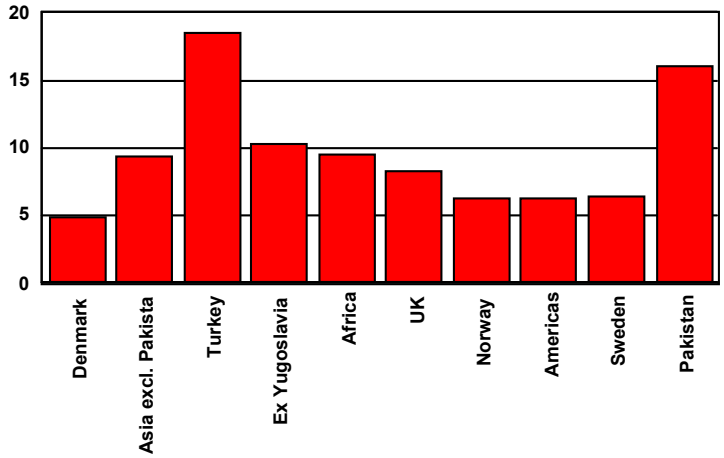


Figure 9a. Unemployment rate by country of origin. Danish and foreign citizens. 1998.

figures include Danish citizens consisting also of foreign born people who have obtained citizenship.

Figure 9a shows the rates of unemployment calculated as the number of unemployed relative to the whole population in the relevant group, excluding children, people in education and retired persons. The unemployment rates are extremely high, 20 - 25 per cent for people from Pakistan and Turkey. For people from other non-OECD regions, unemployment is much lower, although still high compared with Danish citizens. For immigrants from OECD countries, unemployment rates are slightly above the level for Danish citizens.

Figure 9b. Participation rate by country of origin. Danish and foreign citizens. 1998.

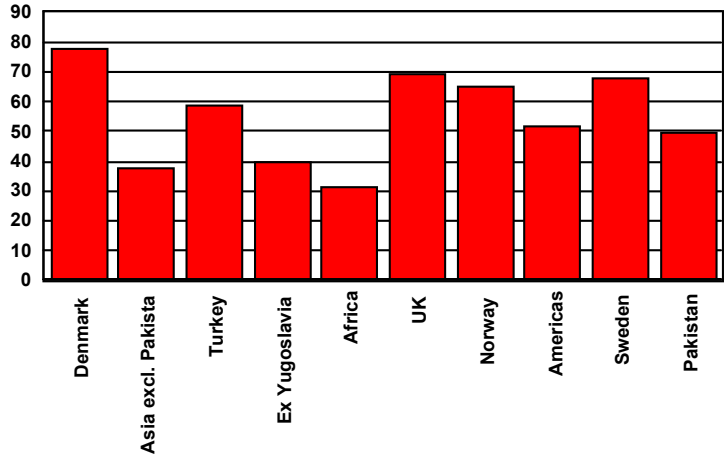
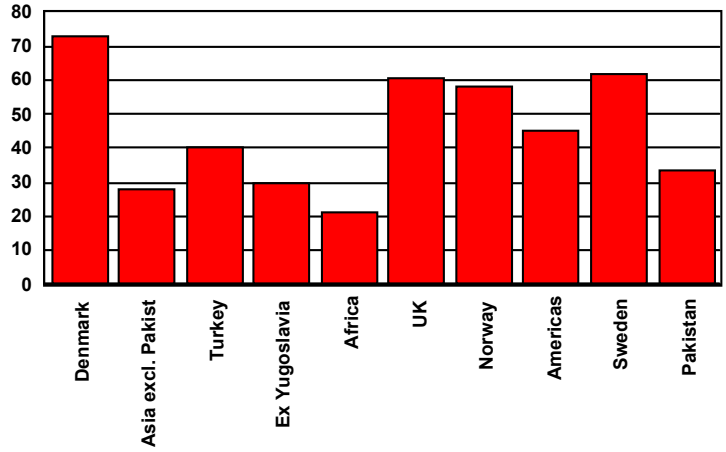


Figure 9b shows participation rates for the same groups. The number of participants exclude children and people under education with only a marginal attachment to the labour force. The variation in participation rates is very big, indicating that it could be highly misleading to judge labour market integration by looking only at unemployment rates. People from ex-Yugoslavia is a case in point. The unemployment rate is only slightly above the level found for Danish citizens, while the participation rate is only 0.30. This also reflects that the group is a composite of people who arrived at the time of the guest worker immigration and more recently arrived refugees from Bosnia. The latter group was - initially - not given a permanent residence permit, and consequently many of them had not even the opportunity to attempt an entry to the labour market.

Figure 9c. Employment rate by country of origin. Danish and foreign citizens. 1998.

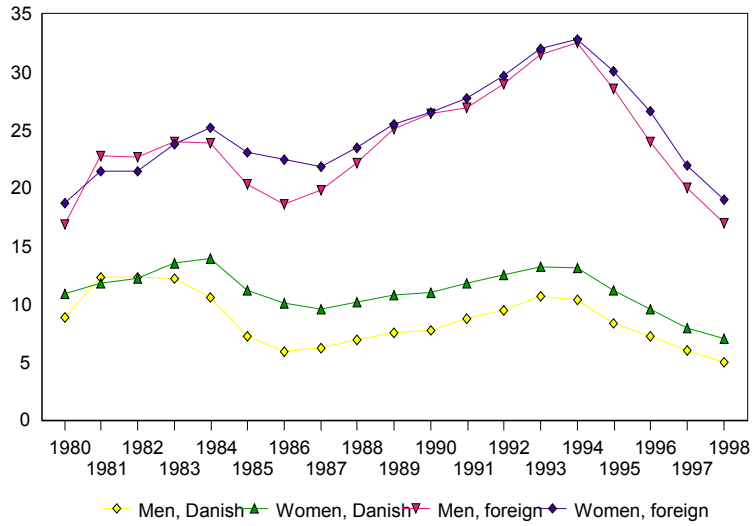


We find the same low participation rates for people coming from Asia and Africa. Here, too, the refugee status is part of the explanation of the low participation rates.The employment rates shown in Figure 9c are thus more reliable indicators concerning entry to the labour market as of the beginning of 1997.

The two oldest immigrant groups from Turkey and Pakistan have employment rates about 30 - 40 per cent, i.e. at half the level found among Danish citizens, while the groups dominated by recently arrived refugees have employment rates only slightly above 20 per cent. The econometric studies discussed below have concentrated on analyses of the incidence and duration of unemployment among immigrants and refugees. Based on the evidence contained in especially Figure 9b, it might be equally important to study the participation decision and the potential and real restrictions on participation.

Over time there are big and persistent differences in the unemployment rates between Danish citizens and foreign citizens as a group, cf. Figure 10 showing the development since 1980.

Figure 10. Unemployment rates by citizenship and gender. 1980-1998.

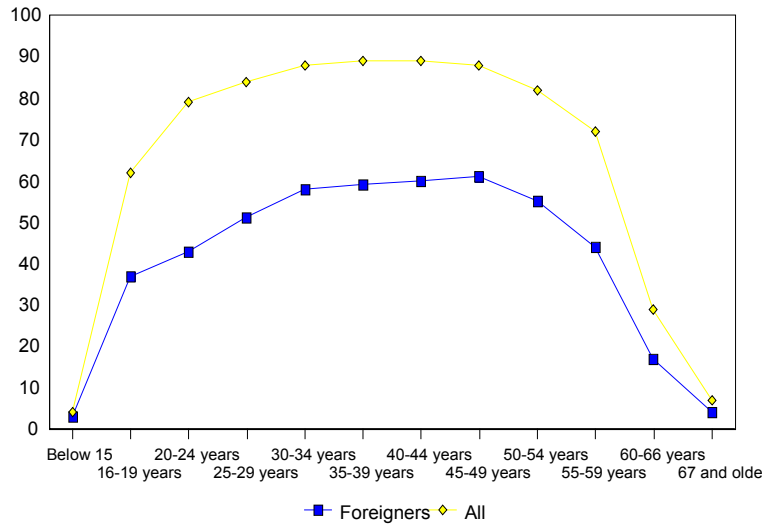


During the whole recession from 1986/87 to 1994, foreign citizens have unemployment rates above 20 per cent. On top of the effects from the recession, the figure also reflect the impact from the increasing net immigration during these years, cf. Figure 4.

As mentioned above, participation rates are equally or more important than unemployment rates as indicators of labour market integration. Figure 11 shows participation rates by age in 1996 for foreigners as a group and for the whole population. A difference of about 30 percentage points for the core age groups signals that integration by this measure is still a distant goal.

The few econometric studies of the integration process in the labour market have concentrated on unemployment and wages. The topics in Hummelgaard et al. (1995) are unemployment and residential mobility among immigrants and refugees from non-OECD countries. The question of geographical distribution and concentration among these groups are treated below. Here we concentrate on the results concerning unemployment. The data base used in the study is unique in the sense that it consists of register based information on all immigrants and refugees from non-OECD countries aged between 15 and 66 years. This 100 per cent sample is combined with

Figure 11. Labour force participation rates for foreign citizens and for all in Denmark. 1998.



a 10 per cent representative sample of the native population making a panel data set covering the period 1984-91. Data were available also on descendants of immigrants and refugees. Among the drawbacks of the data are a lack of knowledge about the educational background of immigrants and refugees at the time of their arrival into Denmark and about their language ability regarding Danish. Further, data lacks a clear distinction between immigrants and refugees. This is solved by classifying everybody coming from the typical refugee nations as refugees, and classifying people coming from other non-OECD countries as immigrants.

Based on monthly observations of individual labour market states, the data are used to construct spells of unemployment which are used in duration analyses estimating a Weibull hazard model. People in the sample are included in the analysis if they have at least one year of labour market experience in Denmark. The unemployment experience is decomposed into the risk of unemployment and the duration in case of unemployment. The risk of unemployment was twice as high for first generation refugees as for the population as a whole. It was even higher for immigrants. This should be seen, however, along with the major differences in participation rates, which are much higher for immigrants than for refugees, cf. Figure 9b. For descendants of immigrants and refugees, the second generation, the unemployment risk is on level with the one for the population as a whole. For both refugees and immigrants the risk of unemployment is a decreasing function of the time of residence in Denmark. The decline is much stronger among refugees than among immigrants and differs quite much depending on the country of origin. Once again it should be emphasized that we are comparing conditional risks and not the risks for the two respective groups in their totality.

The average duration of unemployment spells is also much longer among immigrants and refugees than among the whole population. Integration by this measure is much closer for the

second generation immigrants who - very much dependent on education - on average only have slightly longer average duration of unemployment than the whole population.

The panel structure of the data makes it possible to follow the employment share as a function of the duration of residence. For men aged 30-39 years the employment share reaches 50 per cent after 10 years in the country. The initial levels differ greatly, 30 versus 5 per cent after one year, for immigrants respectively refugees, while the levels for the two groups are about the same 10 years later. For women, there is a take-over point after 5 years and the 10 years employment share for refugee women is at the same level as for men, and significantly higher than for immigrant women.

In the duration analysis a main result is a negative duration dependence in the hazard rate out of unemployment. There is a high risk of spell recurrence and consequently a rather low probability of an exit to a long term job. There are significant differences depending on gender and country of origin regarding the chances of obtaining a regular long term job. Especially immigrant women are a vulnerable group in relation to labour market integration.

Hummelgaard et al. (1995) conclude the study of unemployment with a discussion of barriers in the labour market increasing the risk and duration of unemployment for those immigrants and refugees who have entered the labour market. Many of the barriers taken up in the discussion are related to discrimination. Education has been emphasized as one of the important factors regarding success or not in the labour market. But in the case of second generation immigrants who have received their education in Denmark, the Social Commission (1992) found a systematic higher risk of unemployment for second generation immigrants compared with young Danes with the same education. This is especially important concerning vocational training, which is partly composed of a practical apprenticeship in a firm. Second generation immigrants have greater problems finding an opportunity for practical apprenticeship than their Danish counterparts, Ottosen (1993), Pilegaard Jensen et al. (1992). Part of this reflects without doubt discrimination. Another part reflects that a broad social network in the local community is important for finding a practical apprenticeship job, and this network is for obvious reasons fragmentary for immigrants and refugees.

Another piece of evidence regarding discrimination as a barrier is found in Melchior (1990). She had information for a group of immigrants about their vocational or theoretical education in their country of origin. Melchior found that this was without significance for the succes or not in the Danish labour market.

Insufficient language skill is an important barrier for first generation immigrants which is reduced but not overcome by courses in Danish for immigrants and refugees, Ottosen (1993). Insufficient knowledge of Danish is not a problem for second generation immigrants. The barriers for this group seem to a large extent to vary with their country of origin. This could be related to big differences regarding the socio-economic status of their parents back in their home countries, and

different attitudes regarding the importance of giving their children an education in Denmark could reflect this.

A more specific study of education and unemployment among young first or second generation immigrants is found in Hummelgaard et al. (1998). The data set is a combination of a 100 per cent sample of young immigrants and descendants from immigrants combined with a 10 per cent representative sample of the whole population in the relevant age group. Like in Hummelgaard et al. (1995) data are drawn from administrative registers. In the present study the period covered by the longitudinal data set is the years 1984-94.

People in the sample with a foreign background are divided into two groups, descendants who are born in Denmark and immigrants arriving before the age of 14 years. Regarding the educational background, there are significant differences between the two groups with a foreign background and between them and the native population. Among descendants, the share with a theoretical education is the same as for the native population. The main difference is a lower share with a vocational education and a higher share without any formal education after school. The young immigrants have lower shares, both with a theoretical and a vocational education. Two thirds of the young people aged 20-29 years in this group has no formal education after school. Regarding the ambition of labour market integration this is obviously a severe handicap. Among the young immigrants, the share with a formal post-school education is lower on average the older the person was at the time of arrival to Denmark. The variation with regard to national background is very big, from 80 per cent without any post-school education among young immigrants from Turkey, to 30-40 per cent among people from the former Soviet Union and Eastern Europe. This might, as mentioned before, reflect equally big differences in the socio-economic background of parents coming from different countries.

Formal education is important for entry to a labour market with a high average wage, a low variance in the wage distribution and a relatively high minimum wage. The labour market experience of the group of young descendants and immigrants is the second topic in the study. Regarding participation, descendants and immigrants arriving before the age of 13 have the same participation rate as the population as a whole, also by gender. Young immigrants and refugees arriving after the age of 12, i.e. having had most of their eventual school years outside Denmark, have much lower participation rates, 71 on average for arrivals between the age of 13 and 19 and 54 on average for those arriving in the age interval 20-38 years. For descendants and the population as a whole the corresponding participation rate is close to 90 per cent in the relevant age group.

In 1994, the rate of unemployment in the age group was 13 per cent for the whole population, 20 per cent for descendants and 31 per cent for immigrants with arrival in the age interval 0-12 years. For descendants, a standard calculation shows that one third of the unemployment difference relative to the whole population can be ascribed to educational differences. Part of the

remaining two thirds reflects discrimination as documented by Hjarnø and Jensen (1997). By country of origin, the unemployment rate is highest for young people from Turkey and lowest for people from the former Soviet Union and Eastern Europe. The average duration of unemployment compared with the native population is 20 per cent higher for descendants and 50 per cent higher among young immigrants.

The transition out of unemployment is modelled by estimation of a Weibull hazard function. Dummy variables for being a descendant or an immigrant arriving in the age interval 0-12 years are significant and negative, indicating a lower transition rate out of unemployment. Education is important, and especially a theoretical education is found to be very important for descendants and immigrants. In spite of this, and considering the big differences in educational levels and composition summarized above, dummies for national background are not significant in the Weibull estimation. Finally, a significant negative duration dependence is found which is numerically bigger for descendants and young immigrants.

Wages for immigrants and refugees who get a job are studied by Husted et al. (1998) and Ministry of Economic Affairs (1997). The study by Husted et al. (1998) is preliminary. It uses the same data base as the studies by Hummelgaard et al. discussed above. The period under study is 1984-94. Only first generation immigrants and refugees are included in the analysis. People in self-employment are excluded because no wage rate can be imputed for that category[10]. Hourly wages are calculated by use of an algorithm where tax register information on the annual wage income is divided by an estimated number of working hours. The estimate of working hours - based on payments to a compulsory labour market pension scheme - is not reliable for short part time workers. A state of employment is therefore restricted to people with weekly hours above 30. Preliminary results are presented from a human capital based set of wage rate estimations. The estimation procedure corrects for self selectivity which is important for immigrants and refugees due to the low participation rates, cf. also above. An attempt to solve the problem of missing information about education at the time of entry is made by the estimation of a random effect model where the excluded individual constant term captures the missing prior to entry education variable. In the wage equations for immigrants and refugees the time spent in Denmark is split into accumulated time in employment, respectively non-employment.

The preliminary results indicate that the wage is positively dependent on the share of the time spent in employment. However, there is not found evidence of wage assimilation when correction is made for background variables. This is in contrast to results in a study from Ministry of Economic Affairs (1997), cf. below. The equations include standard demographic variables and dummies for country of origin. Country dummies come out with fairly large negative coefficients

[10]This exclusion is not trivial as opening a one man or family business is a relatively much used way to enter the labour market in the new country of residence. Many of the immigrants come from cultures where self-employment is more usual than in the North European urban industrial environment.

for Turkey, Africa, Sri Lanka, Iran, Iraq and Vietnam[11]

The Ministry of Economic Affairs (1997) presents a wage estimation on cross section data for 1995, including the time in Denmark among the explanatory variables. The data set is a 10 per cent sample of wage and salary earners in private firms with 10 or more employees and is restricted to people 18-59 years old. There is a significant wage assimilation effect for immigrants. There seems however to be a break in the relationship implying wage assimilation for people arriving before the mid-1980s. For people arriving during the next decade there is no clear relationship between the wage and the time of residence in Denmark. This period was characterized by the entry of refugees in fairly great numbers, cf. Section 2. The regression analysis does not correct for selectivity and does neither correct for changes in the composition of immigrants on countries of origin.

5. Welfare Related Issues

Immigration can broadly speaking influence welfare by two routes. The first is the impact in real economic terms on production, employment, real wages, the wage distribution etc. The other is the impact from immigration on public sector finances in the receiving country. The first of these routes is until now of inferior importance in the Danish context, cf. Ministry of Economic Affairs (1997). This is due primarily to the fairly low level of immigration in combination with the hitherto low employment rates for immigrants and refugees. The total employment for this group is 1 - 1.5 per cent of the economy wide level of employment. The Ministry of Economic Affairs simulates the impact from immigration on a number of real economic magnitudes using parameter values found in different studies in the literature. Overall, the conclusion is that the impact on the real economy until now has been negligible, but that the impact is expected to increase along with an increase in the crucial share of employment among immigrants.

The employment share is increasing with the duration of residence in Denmark, cf. Table 1, but the level is still low for the group that has spent more than 10 years in Denmark. For comparison Table 1 includes corresponding numbers from a Norwegian study going somewhat longer back in time. The numbers are not directly comparable as e.g. the composition on countries of origin differs between Denmark and Norway. Even with these modifications it is interesting to note that integration by this measure seems to have gone much faster in Norway[12].

[11]The results are preliminary as part of an ongoing study of wage assimilation and wage discrimination for immigrants and refugees on the Danish labour market.

[12]Note however that aggregate unemployment profiles have been very different in the two countries with much lower unemployment throughout the period in Norway.

Table 1. Share of immigrants and refugees in employment by the length of residence.

Denmark, 1995		Norway, 1993	
1-5 years	8.4	< 4 years	8.2
5 - 10 years	14.7	4 - 8 years	36.9
> 10 years	27.7	9 - 13 years	50.4
		14 - 23 years	53.7
		> 23	65.1

Source: Ministry of Economic Affairs, 1997.

Part of the slow employment integration might relate to the high and mostly increasing level of unemployment until 1994. The Ministry of Economic Affairs points to another area, i.e. the weak or non-existent economic incentives to supply labour for part of the immigrant population due to very high composite marginal tax rates. Due to means tested transfers an immigrant family with children could confront a composite marginal tax rate of 0.90 or more if they change from being provided for by income transfers to unskilled jobs.

The other route by which immigration influences welfare is through the eventual impact on revenue and expenditures for the public sector, both in a static and in a dynamic perspective. The Ministry of Economic Affairs (1997, ch. 6) presents the results from a static exercise for the year 1995 using register based data for a representative sample of the total population. Public expenditures and taxes are individualized as far as possible. The sample is divided into three groups, i.e. group 1 consisting of immigrants from OECD countries, group 2 are immigrants and refugees from other countries and group 3 is the rest of the population.

The main results are shown in Table 2.

Table 2. Impact on public sector revenue and expenditures. Average per person. DKK. 1995.

	Group 1	Group 2	Group 3
Income transfers	45.700	70.100	49.400
Individual consumption of public services	43.900	82100	44.700
Direct taxes	62.300	38.700	68.400
Indirect taxes	38.000	31.600	40.700
Net contribution	10.600	-82.000	15.000
Average income from work	111.700	54.600	131.900
No. of persons	91.560	137.310	3.917.940

Source: Ministry of Economic Affairs (1997)

The total net contribution in 1995 was -11.3 mia DKK for group 2, immigrants and refugees from non-OECD countries, while immigrants from OECD countries had a net contribution of 1 mia DKK. The difference reflects the low employment share for group 2 leading to a high level of income transfers in the form of social welfare benefits, unemployment insurance benefits for those who are eligible, means tested and non-means tested child benefits and rent support, which is also means tested. The high average individual consumption of public sector services is related among other things to expenditures for asylum centres for refugees applying for a residence permit, integration programmes, and school expenditures for children of immigrants and refugees. The fairly low average tax payments once again reflects the low employment share, which is also evident when comparing average incomes from work between the three groups in the analysis.

The study by the Ministry of Economic Affairs (1997) does not attempt a dynamic analysis of the impact on public finance. As an approach in that direction the net contribution in 1995 has been calculated as a function of the duration of residence in Denmark. Also for the group with more than 10 years of residence, the average net contribution is negative at 48.000 DKK. This numerical exercise most of all underlines the major importance of a faster labour market integration to reap the benefits connected with immigration. Non-economic considerations of course also support the importance of fast labour market integration.

The responsibility regarding expenditures related to the entry of immigrants and refugees are divided between the state, counties and municipalities. The rules governing this administrative division are not necessarily optimal in relation to the goal of fast integration. A short study of these aspects based on survey data from a sample of municipalities is found in Christoffersen and Andersen (1997).

This division of the financial responsibility for the different programmes directed to immigrants and refugees is one reason why the geographical dispersion of immigrants and refugees is of interest. Another aspect follows from the observation that an initial administratively organized dispersion of refugees over the country after the granting of a residence permit, is followed by mobility towards urban centres with a high concentration of ethnical minorities. This behaviour can be interpreted in -at least -two different ways. First, it has always been normal behaviour in immigration countries that recently arrived immigrants stick together with fellow countrymen who have arrived earlier. In this way a social network is established faster than if residence occurs among people with a different language and a different culture. The opposite interpretation is that this behaviour tends to create ghettos that will slow down the integration in the new society, i.e. the need to learn the new language quickly and to create a network relative to the natives in the new country becomes less imperative. The eventual negative effect from this could be a more difficult situation regarding labour market entry.

Residential mobility models for immigrants and refugees have been estimated by Hummelgaard

et al. (1995) and Graversen et al. (1997). The data set used by Hummelgaard et al. is described above. Mobility is studied by estimation of a logistic model. Residential mobility by immigrants and refugees is, cf. above, dominated by moves to areas with a high concentration of ethnical minorities. A number of background variables result in a significantly lower mobility. This is found for an indicator for having stable employment, for the duration of residence in Denmark, for living in a couple, for being provided for to a large extent by public income transfers and for living in a neighbourhood with a large proportion of ethnical minorities. In relation to integration, these findings seem to point in different directions. A significant higher propensity to be mobile is found for people with weak or no attachment to the labour market.

Graversen et al. (1997) analyse mobility for people, both immigrants and natives, living in "problem housing estates", defined as estates receiving support from a special programme run by the Ministry of Social Affairs. A non-trivial share of the inhabitants in those housing estates are immigrants and refugees. The mobility pattern is analysed by estimation of a logit model. Among the findings are that people from ethnical minorities to a much larger extent than Danes remain in those estates. The study tried to determine - in relation to the ghetto aspect raised above - whether there was a critical share of people from ethnical groups, making for much higher out-mobility among Danes living in the estates, if this critical level was crossed. No such critical level was found.

6. Concluding comments

The present share of immigrants and descendants in Denmark is close to the average Western European level. International migration in recent decades was surveyed above separately for Danish citizens and foreigners. Danish citizens have free access to the labour markets in the other Nordic countries (since 1954) and in the other EU countries (since 1972). Net migration flows have however been small, but responsive to economic indicators in Denmark and abroad.

Immigration to Denmark falls in a number of phases in the post war years. Guest workers arrived in the decade up to the first oil price shock mainly from Yugoslavia and Turkey. After the enactment of a legal stop for guest worker immigration in 1974, there has been three different kinds of immigration flows, i.e. family reunions relative to those who arrived prior to 1974, immigration from other OECD countries, mainly Nordic and other EU countries, and an inflow of refugees during the 1980s and 1990s.

The labour market integration of immigrants and refugees has not been very successful. Participation rates are low, especially for refugees, and unemployment has been high among those who have succeeded to enter the labour market. First generation immigrants have a much higher risk of unemployment and a much higher duration in case of unemployment compared with the native population. Second generation immigrants, i.e. descendants, have the same risk of unemployment as the native population and only a slightly higher average duration. The main problems regarding labour market integration are related to high aggregate unemployment at the

time of arrival, to discrimination and to barriers in the form of lacking language skill and lack of relevant educational qualifications. The risk of unemployment and the share of people in stable employment are decreasing respectively increasing in the duration of residence in Denmark. The share with stable employment is about 50 per cent after 10 years for men in the age group 30-39 years. For first generation immigrants, wage assimilation is also found to be dependent on duration of residence.

The welfare issues of immigration are related to the impact on real economic magnitudes and to the impact on public sector revenue and expenditures. No dynamic analysis is available for Denmark of these issues. Static analyses regarding the situation in the mid-1990s indicate a negligible real impact due to the fairly small stock of immigrants in combination with a low degree of labour market integration for immigrants from outside the group of high income countries. The static impact on public sector revenue and expenditures is estimated to be on the level of -82.000 DKK as an average amount per immigrant or refugee from non-OECD countries. The total net contribution from this group of immigrants is estimated to be -11.3 mia DKK corresponding to 1.2 per cent of GNP in 1995. The average net contribution is declining with the duration of residence in Denmark, but is still negative for those with more than 10 years of residence.

Immigrants and refugees have tended to concentrate in a number of neighbourhoods in the bigger cities. A few quantitative studies have analysed this residential pattern which has consequences for the allocation of public expenditures between municipalities - with subsequent political tensions - and which also has eventual negative consequences for labour market integration.

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