Study no. 7

The integration of non-Western immigrants in a Scandinavian labour market:

The Danish experience

Marie Louise Schultz-Nielsen

with contributions by

**Olaf Ingerslev, Claus Larsen,
Gunnar Viby Mogensen,
Niels-Kenneth Nielsen, Søren Pedersen and
Eskil Wadensjö**

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Linguistic adviser:
Steve Churchill

Address:
The Rockwool Foundation Research Unit
Danmarks Statistik (Statistics Denmark)
Sejrøgade 11
DK-2100 Copenhagen Ø

Tel.: +45 39 17 38 32
Fax.: +45 39 20 52 19

E-mail: rff@rff.dk
Home page: www.rff.dk

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Preface

In 1997, the Rockwool Foundation decided that "immigrants and their living conditions" should be given a higher priority among the areas in which the Foundation seeks to present reliable and balanced social scientific knowledge to political decision-makers and to the public debate.

Some of the major questions to be answered by such research would include how the encounter between the new citizens and their descendants on the one hand and Danish society, including the labour market, on the other takes place – and how it affects living conditions for immigrants and their descendants. An important factor in this connection is how integration into the Danish labour market takes place, which previous experience at the Rockwool Foundation Research Unit and the abundant data possibilities in the official statistics also indicated as a good place to concentrate initial efforts.

The demographic part of the study was largely unknown territory for the Research Unit. Happily, however, professor Poul Chr. Matthiessen, D.Sc. (Econ), former professor of demography at the University of Copenhagen and now chairman of the board at the Carlsberg Foundation, agreed to act as special adviser to the project.

A pilot survey was carried out in the Research Unit in 1998-99 with the participation of several international experts in the field which, through analyses of the global demographic situation in general and immigration to Denmark in particular, was designed to provide a broader background knowledge of the nature of immigration. The results were published in *Immigration to Denmark. International and national perspectives*, by David Coleman and Eskil Wadensjö (1999, Aarhus University Press).

The main, quantitative, part of the project has, under my leadership, been carried out by a team of researchers at the Unit in Copenhagen consisting of professor Poul Chr. Matthiessen, Claus Larsen (member of the research staff), Niels-Kenneth Nielsen (economics undergraduate), Søren Pedersen (M.Sc. (Econ)) and Marie Louise Schultz-Nielsen (M.Sc. (Econ)). Olaf Ingerslev, head of department at the National Board of Health, also took part, contributing in particular new knowledge about immigrants' health.

In addition, Hans Jørgen Nielsen, associate professor at the University of Copenhagen, carried out a number of in-depth interviews to clarify and elaborate on the results of the main survey.

The results were published in their entirety in *Integration i Danmark omkring årtusindskiftet. Indvandrernes møde med arbejdsmarkedet og velfærdssamfundet* (*Integration in Denmark around the turn of the millennium. Immigrants' en-*

counter with the labour market and the welfare society) (2000, Aarhus University Press), and in more popular form in *Mislykket integration?* (*Abortive integration?)* by Gunnar Viby Mogensen and Poul Chr. Matthiessen (2000, Spektrum), with comments and assessments by Marianne Jelved, the Minister of Economic Affairs.

A summary of the results of this project, intended for the international researcher community, is now with this book being published, entitled *The integration of non-Western immigrants in a Scandinavian labour market: The Danish experience*, by Marie Louise Schultz-Nielsen et al.

As with all major projects from the Rockwool Foundation Research Unit, this project has also benefited from the comments of a reference group consisting of experts from the fields concerned. The group consisted of head consultant Svein Blom, Statistics Norway, professor Peter Gundelach, University of Copenhagen, professor Jens Vedsted-Hansen, Aarhus University, associate professor Troels Østergaard Sørensen, University of Copenhagen, and was headed by associate professor Benedicte Madsen, Aarhus University. The Research Unit has benefited greatly from the many inspiring discussions with the group, and not least from its helpful comments on the various phases of the project. Any errors and opinions expressed in this book are the sole responsibility of the Unit, of course.

Thanks are once again due to Statistics Denmark for a fruitful collaboration, including the library and the entire leadership, headed by Jan Plovsing, the director. Two other departments at Statistics Denmark should also be mentioned – the Customer Centre, headed by Isak Isaksen, which carried out the actual interviewing, and the Population Office, headed by Lars Borchsenius.

Hans Kurt Kvist, associate professor with the Statistics group at the Copenhagen Business School, has advised on the statistical analyses.

A special thanks to Hanne Lykke, secretary at the Research Unit, who has assembled, proof-read and prepared the manuscript for printing. Sebastian Stenderup, economics undergraduate, has helped check for errors in parts of the data and calculations, while Bent Jensen (MA) has co-ordinated contact with our patient publisher, Statistics Denmark.

The project has, of course, been carried out by the Research Unit in complete scientific independence of both Statistics Denmark and the Rockwool Foundation.

That being said, however, it would have been difficult to carry out the project within such a generous financial framework without the helpfulness and interest of the Foundation.

I owe the Foundation's staff, including its director Poul Erik Pedersen, and not least the Board and its chairman Tom Kähler, warm thanks for the usual high degree of co-operation between the Foundation and the Research Unit.

Copenhagen, October 2001 Gunnar Viby Mogensen

1. Introduction and summary

By Gunnar Viby Mogensen and Marie Louise Schultz-Nielsen

The topic of this book is immigrants and their living conditions, with a special focus on their integration into the labour market. The analyses reported in the book were carried through by the Rockwool Foundation Research Unit in the period 1998 to 2000 and published in Danish in 2000.

1.1 The Scandinavian research in the area

In part, the often extremely emotive debate on the living conditions of immigrants reflects the difficulties in researchers' possibilities for analysing the factors which determine the degree of success or failure of efforts to integrate immigrants from non-Western countries into the labour market of the European countries in question.

In spite of the difficulties of analysis, however, researchers in this area are, in fact, relatively fortunate in those countries which keep national administrative registers containing fairly comprehensive data on the relation to the labour market of all – immigrants and others – legal residents in the country.

Today, such national statistics are only open to researchers in the Nordic countries, who in recent years have contributed greatly to existing knowledge in the area, cf. f.i. Jan Ekberg & Björn Gustafsson (1995) *Invandrare på arbetsmarknaden (Immigrants in the Labour Market)* and Svein Blom (1997) *Tracing the Integration of Refugees in the Labour Market – a Register Approach*.

From Denmark Jeanette E. Dahl, Vibeke Jacobsen & Ruth Emerek (1998) *Indvandrere og arbejdsmarkedet (Immigrants and the Labour Market)* should be mentioned, as well as a number of analyses from the new and very active Center for Research in Social Integration and Marginalization (CIM) at the Aarhus School of Business, cf. f.i. Leif Husted, Helena Skyt Nielsen, Michael Rosholm & Nina Smith (1999) *Employment and Wage Assimilation of Male First-Generation Immigrants in Denmark*, and Michael Rosholm, Kirk Scott & Leif Husted (2000) *The Times They Are A-Changin'*.

However, the registers contain no information about such presumably important factors as language skills or perceived job discrimination. It can therefore be considered as something of a breakthrough for Nordic research in this area that, in recent years, Norwegian and Swedish researchers – usually in collaboration with these countries' national statistical offices – have been able to combine extensive questionnaire surveys of both living conditions, language skills and discrimination among non-Western immigrants to these countries with the "hard" statistical information on respondents' situation with respect to, for example, the

labour market and income, contained in the national registers, cf. f.i. Svein Blom (1998) *Levekår blant ikke-vestlige innvandrere i Norge (Living Conditions among non-Western immigrants in Norway)*, as well as Swedish National Board of Health and Welfare (1999) *Social och ekonomisk förankring bland invandrare från Chile, Iran, Polen och Turkiet (Social and Economic Foundation among Immigrants from Chile, Iran, Poland and Turkey)*.

In Denmark, the Rockwool Foundation Research Unit established a similar collaboration with Statistics Denmark in 1999 for a survey of living conditions among non-Western immigrants. For this study, however, a considerable part of the research efforts, including the statistical analyses, were concentrated on the determinants of integration into the labour market.

This book presents the main results of this analysis. The titles of the publications in Danish – written and edited by Gunnar Viby Mogensen and professor Poul Chr. Matthiessen – appear in the publications list at the end of the book.

1.2 Living conditions

By "integration into the labour market" is in this book meant whether a person is employed or not – i.e. in the labour force and actually has a job.

Firstly, among the many other variables that could be taken into account, we have selected two with particular relevance for employment: Education and health. Secondly, we have included immigrants' use of the social system, which is already highly relevant because of the many unemployed immigrants on social benefits who might later enter the labour market. Apart from this, an analysis of immigrants' relation to the social system is also of general interest, of course, not least at a time when the system itself is both under review and has daily contact with large numbers of immigrants.

Thirdly, we have included a variable which, though presumably real, has a more ambiguous effect on employment, namely crime. On the other hand, the importance of this factor for people's perception of immigrants is in itself reason enough to want to obtain first-hand information about it.

While the number of variables is somewhat limited compared, for example, with previous surveys of living conditions of the Danish population carried out by Statistics Denmark and the Danish National Institute of Social Research – housing conditions, for example, are not included – this survey nonetheless covers many of the factors included in these other analyses.

Finally, we have also found it important to try to determine the overall economic consequences for Denmark, including the impact of immigration on general income redistribution via the public finances.

The results regarding the traditional measures of living conditions is together with some basic demographic data shortly presented in chapter 2, before chapter 3 and 4 is engaging with the situation on the Danish labour market. Chapter 5 gives the technical and methodological specifications of the project.

1.3 The ethnic groups

Until a few years ago, "the Danish immigrant population" was first and foremost a legal term for all persons of foreign citizenship who were resident in Denmark. For many purposes, however – e.g. integration policy – this definition is too narrow. In the first place, many immigrants who change from foreign to Danish nationality will not be integrated into Danish society. And secondly, their children will not be counted as part of the immigrant population either.

Since more and more of the immigrants who came to Denmark since the end of the 1960s are becoming Danish citizens, a growing proportion of these will gradually disappear from the statistics. And since at the same time some nationalities apply for Danish citizenship to a greater extent than others, the number and distribution of foreign nationals will give a misleading picture of the size of the various ethnic groups.

The emergence of a Danish integration policy has thus created a need for an alternative definition of the ethnic population, one based on characteristics of importance for the process of integration, e.g. nationality, language, religion, culture and lifestyle. In principle, however, these criteria cannot be used as a basis for national statistics, which first and foremost build on the Central Civil Register.

The official Danish statistics have therefore proposed an alternative definition of the immigrant population for use in integration policy as consisting of both immigrants and descendants. The definition of the two groups is as follows:

An *immigrant* is defined as a person born outside Denmark whose parents are both (or one of them if there is no available information on the other parent) foreign citizens or were both born abroad. If there is no available information on either of the parents and the person was born abroad, the person is also defined as an immigrant.

A *descendant* is defined as a person born in Denmark whose parents are not Danish citizens born in Denmark. If there is no available information on either of the parents and the person is a foreign citizen, the person is defined as a descendent.

The remaining 93% of the population are neither immigrants nor descendants, i.e. they are "persons where at least one of the parents are of Danish nationality

and born in Denmark", and who in the official Danish statistics are termed "Other". The more idiomatic term "Danes" is used in this book, which is a procedure parallel to the ones used in the official statistics in the other Nordic countries.

The study focuses on immigrants from non-Western countries. Western countries are EU countries, Iceland, Norway, Switzerland, N. America, Australia and New Zealand, while all other countries are termed non-Western.

One of the main reasons for the focus on non-Western countries is obviously that there can be great language and cultural differences, and thus also problems with integration into the labour market.

Secondly, it is immigration from non-Western countries in particular that has been growing the most rapidly in the last few decades, especially since the end of the 1960s.

In 1960, there were just over 40,000 foreign nationals in Denmark, constituting less than 1% of the population. The number of foreigners increased only slowly throughout the 1960s, reaching 60,000 in 1969. This figure grew to over 83,000 over the next three years. While growth slowed somewhat up to the mid-1980s, recent years have again seen a strong rise in the number of foreign citizens, who in 2000 numbered 260,000, or 4.9% of the population. If immigrants and descendants who have become Danish citizens are also included, the figure in 2000 was almost 380,000, corresponding to 7.1% of the total population.

This increasing number of immigrants has come first and foremost from non-Western countries such as Turkey, Pakistan, Ex-Yugoslavia, Iraq and Somalia.

Immigration from non-Western countries is subject to strict control, residence permits normally being given on an individual basis. There were over 39,000 in this group in 1974, compared with barely 6,000 around 1960. In 2000, the number of foreign nationals from non-Western countries had grown to around 180,000.

The number of foreigners from non-Western countries rose especially quickly in the years around 1970 and after the mid-1980s, due to the immigration of both *guest workers* and *refugees*, plus associated *family reunions*. Very few guest workers have come to Denmark in recent years, however. About 47,000 refugees, who in practice come from non-Western countries, came to Denmark in the period 1994-99, or about 7,800 a year. With regard to family reunions, about 48,000 family reunion permits were given in the same period, an average of 8,000 a year.

In addition to this, the fertility of many foreign citizens is considerably higher than for Danish women. Thus, in 1996, the total fertility for immigrants and descendants from developing countries (i.e. all countries except the USA, Canada, Japan, Australia, New Zealand, the European countries excluding Turkey and Cyprus, plus parts of the former Soviet Union) was 3.1, compared with just 1.7 for the population as a whole, cf. *Indvandrere i Danmark (Immigrants in Denmark)*, Marius Poulsen & Anita Lange (1998).

A third reason for the focus on immigration from non-Western countries in particular is that – as pointed out by Dr. David Coleman, Oxford University, in the project's pre-study (David Coleman & Eskil Wadensjö, (1999) *Immigration to Denmark*) – there is a huge emigration potential from precisely these countries in coming years. According to Coleman, much of the world's otherwise declining population growth is concentrated in the Third World, i.e. in countries whose economic and social systems are least able to cope with it, and from where immigrants to Western Europe largely come.

1.4 Summary

The reasonably high economic growth in recent years has had a positive effect on employment – and with it on immigrants' living conditions.

Nonetheless, the overall impression of the trend in the labour market for non-Western immigrants in Denmark during the last 10-15 years is that integration has been extremely slow, so that the proportion of employed immigrants today is only about half that of Danes.

This in turn affects the number of immigrants receiving social benefits. Today, 38% of cash benefits are paid to the 5% of the population who are non-Western immigrants.

Integration into the labour market has in particular been hindered by two factors: Big new immigrant groups have been arriving all the time – and analyses by Dr. David Coleman, Oxford University, show as mentioned that there is an enormous emigration potential towards Western Europe from non-Western countries.

Added to this is the fact that, in future too, there will be a need to integrate the many new descendants. While fertility among non-Western immigrants shows signs of slowly adjusting to the Danish pattern the birth rate is still much higher than for Danes.

Furthermore, integration is hindered by the fact that the latest arrivals seem to have had more difficulty in finding jobs than the earliest arrivals – perhaps, for example, because job qualifications have been tightened, as they also have for Danes.

The vital factor for many non-Western immigrants being active in the Danish labour market does *not* seem to be that they have overcome some possible lack of economic incentives or discrimination from Danes: Both obstacles exist, but apparently they do not play a dominant role.

For example, one in three employed non-Western immigrants works despite having a very small economic incentive to do so.

The perceived discrimination in the labour market *does* exist and often in very unpleasant forms. But it hits less than a majority (39%) of those who have tried to get a job within the last five years – and nearly half of them has anyway got a job. Besides it appeared that also a visible minority of *Danish* wage earners (20%) had felt discriminated. Recent Danish qualitative analysis (by Hans Jørgen Nielsen, published in Gunnar Viby Mogensen and Poul Chr. Matthiessen (eds.) (2000)) shows that discrimination does, of course, reflect the fact that barriers are erected. But the barriers the various immigrant groups put up between themselves are just as high as those between immigrants as a whole on the one side and Danes on the other.

On the other hand, those non-Western immigrants who are employed are better at Danish and have relatively good contact with Danish society: They have a Danish social network and read Danish newspapers, etc.

Conversely, for many immigrant women, having small children who they look after themselves at home has been an obstacle – probably influenced by the traditional perceptions of gender roles and religious persuasion, etc.

While health also plays a role in integration into the labour market, immigrants' healthier lifestyle as regards, for example, drinking habits, contributes to a state of health for non-Western immigrants which is not unlike that of Danes'. Thus, this factor *cannot* explain the differences between Danes' and immigrants' employment situation either.

Crime *might*, however, in that the incidence of crime as measured by court decisions is appreciably higher for immigrants than for Danes, also when corrected for gender and age differences. However, the analyses show – as the social sciences also show about the labour market in general – that the effect on job possibilities is less unambiguous, and is, moreover, completely absent for women – both Danes and immigrants.

The importance of the weak integration into the labour market is underlined by professor Eskil Wadensjö's analysis of the socioeconomic consequences, which among other things shows that probably around 40% of the present relatively big overall redistribution of income (via transfers and taxes, etc.) from Danes (and

Western immigrants) to non-Western immigrants is due to the less favourable employment situation.

And even though the recent years' economic upswing has only slowly benefited non-Western immigrants, the improvement in employment *has* actually pushed the curve for net transfers to them (unemployment benefit, etc.) in a downward direction.

2. The immigrants and some basic living conditions

By Olaf Ingerslev, Claus Larsen, Søren Pedersen and Eskil Wadensjö

In the following, some of the main results of the project are presented – originally published in *Integration i Danmark omkring årtusindskiftet* – as regards the demographic background and some of the major living condition parametres, except integration into the labour market.

2.1 The demography of immigrants

The analysis performed by Søren Pedersen shows that since 1980, the number of immigrants and their descendants in Denmark has more than doubled, from 3% of the population then to 6.8% in 1999, or 363,422 persons. The proportion of men and women among immigrants and descendants is more or less the same as for the population as a whole.

With regard to age, immigrants and descendants are generally slightly younger than Danes.

Immigrants and descendants from non-Western countries in particular have a higher fertility than Danes. Thus, non-Western women had a total fertility rate of 2.8 live births per woman in the period 1994-98, compared with 1.7 live births for Danish women. Especially women from Somalia and Lebanon stand out here, with 5.6 and 5.0 live births per woman respectively.

The higher fertility of immigrants has led to discussions about whether immigrants adapt their fertility to that of the receiving country after a number of years.

A comparison of the fertility of women from non-Western countries who came to Denmark as children in the 0-17 age group with that of women who came here as adults shows that the former in the period 1994-98 have a lower total fertility rate than the latter, 2.4 against 4.2 live births respectively. This could indicate, therefore, that women who have grown up in Denmark do in fact gradually adapt their total fertility to the same level as Danish women.

It is, however, still above the total fertility rate of Danish women.

The proportion of immigrants and descendants in the population as a whole will probably continue to increase solely as a result of the women's higher fertility, but also because there are relatively many young women in the fertile ages. In addition to this, a large number of young married immigrants have found their spouses in the native country, which ensures a continuing influx of young women with a relatively high fertility. Thus, of the 18-25-year-old married immigrants who have lived in Denmark for at least 10 years plus descendants

without Danish citizenship, about 70% from ex-Yugoslavia and Pakistan have found their spouses in the native country. The corresponding figures for Turks are about 90% for men and over 80% for women. For non-Western young married people as a whole, almost 80% of men and just under 70% of women have found their spouses in the country of origin.

Up to now, there have been no reliable figures on how many married immigrants came to Denmark in connection with a new marriage or the reunion of an existing one.

For these analyses, it has been assumed that, where immigrants have been married up to a year before emigrating to Denmark, it is a new marriage. Added to this are also those who have got married up to 6 months after coming to Denmark.

Based on these assumptions, almost 29% of married men from non-Western countries have come to Denmark in connection with a new marriage and over 32% have come to be reunited with an existing spouse (the remaining 39% were married more than 6 months after coming to Denmark). For women, on the other hand, more came to Denmark in connection with a new marriage, namely 48%, while 36% came to be reunited with an existing spouse.

In general, about 90% or more of immigrants from ex-Yugoslavia, Pakistan, Somalia and Turkey are married to a fellow countryman. The corresponding figure for all non-Western immigrants is 70-75%, while about 97% of Danes are married to other Danes.

The number of immigrants and descendants who became Danish citizens stayed constant at around 3-4,000 a year between 1980-90. In 1991, this figure rose to over 5,000 and stayed above this level until 1997. The numbers rose strongly again in 1998 and 1999, over 12,000 being naturalised in 1999, the highest figure up to the publication of the project.

A comparison of the number of naturalised immigrants with those who are *eligible* for naturalisation (the so-called naturalisation rate) shows that, in 1991, especially refugees who came to Denmark in the 1980s from Iran, Lebanon, Vietnam and, in part, also Poland, took out Danish citizenship. The naturalisation rate was around 40% for immigrants from Iran, Lebanon and Vietnam, and around 20% for Poles. Between 1991 and 1997, the naturalisation rate fell for all nationalities bar Turks.

2.2 Immigrants' educational background

Claus Larsen is pointing at, that education in a broad sense - including both actual schooling, etc., and knowledge of Danish - could be expected in advance to

have a big influence on immigrants' and descendants' possibilities for doing well in Danish society, including their integration into the labour market. Up to the publication of the project, however, official statistics of these factors have been limited, and it has therefore been necessary to collect information on them specially for this study.

As far as *school and further education* is concerned, the official statistics have up to the publication of this project only included Danish education, while any qualifications immigrants had when they came to Denmark have not been registered. Two thirds of immigrants have therefore had to be placed in the "education unknown" column in the educational statistics. As regards knowledge of Danish, there is not really any other possibility of finding this out than by asking people directly, which is exactly what we have done in this study.

Of the 2,633 persons in the survey who immigrated when they were 13 or older, over 90% said that they went to school before coming to Denmark. Of these, 67% had only attended primary school, 5% had an upper-secondary-school education, 16% vocational training, and 12% a further education.

Especially refugees tend to have a vocational or further education before coming to Denmark – as opposed, for example, to people who come under family reunification rules. One third of those who have completed a course of education abroad have also been able to use it in Denmark. Remarkably few of those who have not been able to do so give discrimination as the reason.

Thus, by asking about foreign education, the large proportion of respondents with "education unknown" practically disappears. Combined with register data about Danish education for the same persons, this new information gives an overall measure for the level of education.

The educational level of immigrants as a whole is still quite a way under that of the Danish population, particularly with regard to vocational training. However, the differences between the various immigrant groups are even greater. A large majority of immigrants from the "old" immigrant countries of Turkey and Pakistan in particular have no vocational training or further education. This is especially so for women.

An analysis of which factors in particular determine whether immigrants have a Danish and/or foreign education presents a picture of a heterogeneous group, where e.g. country of origin and a tradition for female education seem to be strongly deterministic. Both male and female immigrants from Poland, ex-Yugoslavia and Iran are very likely to have an education above primary school level.

Immigrants' knowledge of Danish is based partly on respondents' own assessment and partly on interviewers' assessments. When asked to assess their own knowledge of Danish, 51% replied that they are "very good" (fluent) or "good".

However, interviewers' assessments indicated that some respondents overestimate their language skills – the corresponding figure here was 46%. And more detailed questions about knowledge of Danish in specific situations also revealed a more nuanced picture, resulting in a convergence of respondents' own and interviewers' assessments.

Unsurprisingly, relatively few of the immigrants who came to Denmark as children have a poor or very poor knowledge of Danish compared with those who came at a later age. Furthermore, more women than men have difficulty with Danish.

An analysis of immigrants who were 13 or older when they came to Denmark reveals, firstly, that country of origin plays a role, especially immigrants from Pakistan, Turkey and Vietnam having difficulty with Danish. Secondly, that it is important to participate in social life and mix daily with Danish-speaking people – either through work, education or privately. The latter is particularly important for women's knowledge of Danish, since relatively few of them work outside the home.

90% of respondents said that they had had Danish lessons, and lack of *participation* in these lessons cannot by itself explain the relatively poor assessments, both by the respondents themselves and the interviewers, of their knowledge of Danish. The more likely explanation is that they did not get enough out of the courses.

2.3 Transfer payments to immigrants

An analysis of relations to the social system by Søren Pedersen shows that immigrants in Denmark have much the same rights as Danish citizens – though the requirements of eligibility, e.g. for early retirement, means that the starting point for calculating the amount of benefit payable is not the same, of course.

Non-Western immigrants receive permanent benefits (pensions, etc.) to a far lesser extent than Danes, also when adjusted for different gender and age distributions. An exception is social pension and transitional allowance. One explanation for the generally lower take-up of permanent benefits is the requirement of permanent residence in Denmark for a certain number of years. A very large proportion of immigrants who are ineligible for old age pension therefore receive cash benefit instead.

In contrast to the above, large numbers of non-Western immigrants receive provisional benefits. In 1998, for example, 59% (in the 18-66 age group) received one form of provisional benefit or another – especially cash benefit and unemployment benefit. An adjustment for gender and age distribution reduces the figure only slightly, namely to 53%. If this figure is added to the proportion who receive a social pension, then in 1998 a total of 36% of adult Danes and 65% of adult immigrants from non-Western countries (64% when adjusted for gender and age) received transfer incomes of this kind.

A special analysis of the effect of economic fluctuations on the proportion of passive support (for 25-59-year-olds in 1998) shows that, during the economic upswing of recent years, substantially more non-Western immigrants and descendants than Danes remained on public assistance. And conversely, a larger proportion of Danes remain completely self-supporting than non-Western immigrants.

However, it cannot be concluded that the boom benefited Danes the most based on this alone. Other analyses show that the participation rate has actually risen more for non-Western immigrants than for Danes – for the simple reason that there relatively were many more immigrants than Danes without work to start with.

A particularly detailed statistical analysis of the factors which determine whether immigrants actually receive cash benefit or not largely reflects the previous analysis, which highlighted the importance of immigrants' employment status.

Especially a statistical model indicates two groups of factors in particular as being crucial. Firstly, being a recent arrival, having a poor knowledge of Danish, and – as regards female immigrants – having a lot of children still living at home. Secondly, nationality has the special effect – which we are at a loss to explain – that women from Vietnam and men from ex-Yugoslavia, Iran, Lebanon or Somalia have an especially high probability of being on cash benefit in Denmark.

It should be emphasised that the decisive role of employment for immigrants' use of the social system has strong parallels to Marie Louise Schultz-Nielsen's analysis of immigrants' integration into the labour market and Eskil Wadensjö's analyses of income redistribution via the public sector.

All the indications are that the actual illegal abuse of provisional benefits is not of any great importance – neither for Danes in general nor non-Western immigrants in particular.

2.4 Immigrants and health

(NHS) data for 1998 and – as regards immigrants' health situation – data in the National Hospital Discharge Register for 1994-98 show that immigrants make *good use of the Danish health system*[1]. Immigrants from non-Western countries use most of the analysed health services to the same extent as, or slightly more than, Danes.

Immigrant women from non-Western countries in the 16-55 age group, who have an average of about 7 annual visits to the doctor, have much the same contact with their general practitioner (GP) as Danish women. Danish men between 16-55 go to their doctor 3.4 times a year, against 3.9 times for non-Western immigrant men. Visits to eye specialists and ear-nose-and-throat specialists are more frequent than for Danes. The close contact with GPs and specialists shows that immigrants know their way around the health system and therefore also have a good possibility of using it.

There are parts of the health service that immigrants use less than Danes, however, for example, physiotherapy. It is a reasonable assumption that the payment element in physiotherapy is one of the reasons why it is not used so much by immigrants. The same applies to check-ups at the dentist's, where immigrants go to the dentist's only every other year on average, which is only half as frequent as Danes. Finally, immigrants go to a psychiatrist's more often than Danes.

As far as the overall health situation is concerned, there are some diseases which immigrants get over better than Danes and some which Danes get over better than immigrants.

As regards births, contact with maternity wards as measured by the number of visits to the midwife is slightly lower for immigrant women than for Danish women. Immigrant women give birth to slightly smaller children, and have Caesareans less often, than Danish women.

There have been fears of an increased risk of birth deformities for some immigrant groups. The present analysis shows, however, that there are only minor variations in the deformity rates for the various countries. Overall, between 1994-98, 2.7% of Danish children had a deformity against 2.9% of non-Western immigrants' children. This difference can be attributed to chance.

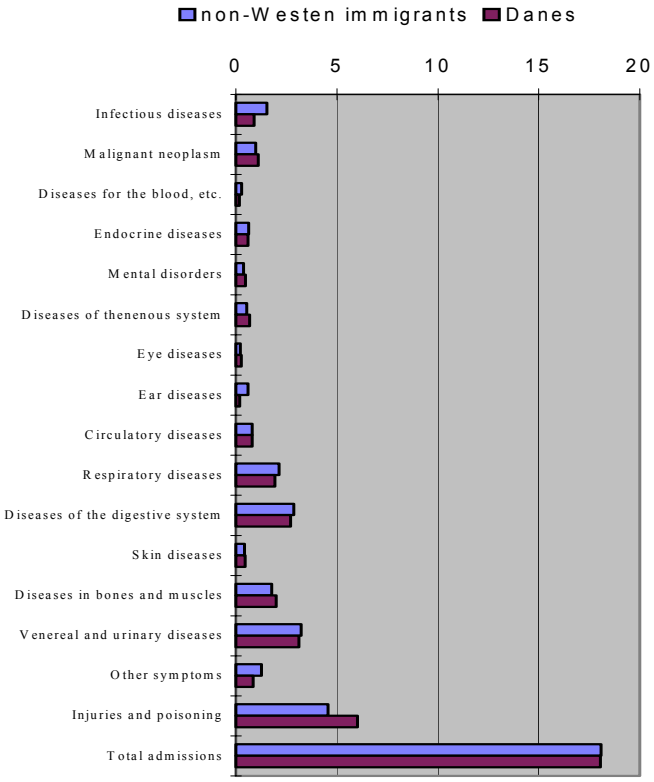
Non-Western immigrant women have a very high abortion rate. While there were 12 abortions per 1000 Danish women in the fertile age in 1994-98, the figure for women from non-Western countries was 29 per 1000 women. The figure is lower for descendants, though, at 21 abortions per 1000 women, it is still high.

[1] Most benefits within the Danish health system are free of charge.

Immigrants are more often *admitted to hospital* than Danes. If admissions are used to assess immigrants' health, those that are not a result of deteriorating health, or which do not constitute an appreciable long-term health problem, should be ignored. Here, therefore, admissions due to, for example, pregnancies, are left out. Illnesses that are easily curable, and which are much more common among immigrants than among Danes, are also left out.

The overall conclusion of non-Western immigrants' health based on admission records from the National Hospital Discharge Register is thus that there is no appreciable difference between immigrants' and Danes' general health. Figure 2.1 shows the situation for the younger age groups (16-35 years).

Figure 2.1. Proportion of non-Western immigrants and Danes respectively who have been admitted to hospital with a specific diagnosis in 1994-98. 16-35 age group. %



Source: Viby Mogensen and Poul Chr. Matthiessen (eds.) (2000).

There are differences between immigrants and Danes with respect to a number of serious illnesses, however.

16-55-year-old Danes have a higher risk of cancer than immigrants in the same age group. The difference is greatest for the 36-55-year-olds, where the risk of being diagnosed cancer in 1994-98 was about 50% higher for Danes than for non-Western immigrants.

The opposite is true for the other large group of diseases, heart diseases, the probability of a heart disease being higher for immigrants from non-Western countries than for Danes. The risk of heart disease for 36-55-year-olds is about 40% higher for men and about 50% higher for women. This is hard to explain, inasmuch as the lower incidence of smoking among immigrants should pull in the opposite direction.

One explanation could be that immigrants, especially immigrant women, exercise less than Danes. The higher ill health resulting from heart diseases is not reflected in a higher mortality, however. Up to the age of 60, heart disease as a cause of death is just as frequent for immigrants as for Danes.

Immigrants have a substantially higher incidence of respiratory diseases than Danes, despite smoking less.

Diagnoses which essentially indicate physical pain, and which are therefore not completely satisfactory from a medical point of view, are far more frequent for immigrants than for Danes. In the period 1994-98, 4.1% of non-Western immigrant women and 2.6% of Danish women received such diagnoses – the corresponding figures for men were 2.4% and 1.6% respectively. The difference can be due to the fact that some immigrants have a lower threshold of pain than Danes, but a contributory reason could be that the health service is relatively poorly equipped to deal with immigrants' illnesses, e.g. because of communication problems.

As far as *lifestyle* is concerned, the picture is appreciably more positive for immigrants than for Danes. Women from Vietnam, Somalia and Pakistan do not smoke, and women from the other countries in the survey smoke less than Danes. Somali, Pakistani and Polish men also smoke considerably less than Danish men, while Lebanese men smoke more. At their first midwife check-up, only 10% of non-Western immigrant women smoked, while all of 28% of Danish women smoked.

Alcohol consumption is a lot lower for immigrants than for Danes. Women from Pakistan, Somalia, Lebanon, Turkey and Vietnam drink hardly at all, while for men, only immigrants from Poland and Iran have a higher consumption than Danish men. This is also reflected in the fact that alcoholic liver disorders are far

more common among Danes than among immigrants, as are also mental disorders due to alcohol abuse.

Mortality among 15-60-year-old immigrants is lower than among Danes. There is therefore no excessive mortality among non-Western immigrants, and it can be assumed that immigration will give a (marginally) positive contribution to average life expectancy in Denmark.

Overall, the analysis shows that immigrants are not in poorer health than Danes, but that they have a *different* medical profile than Danes, which it is important for the health service to be aware of.

2.5 Crime

Claus Larsen points out that "Foreigners and crime" is a controversial topic which is often lively debated in the media. Too lively, say experts in the area, who attack the media for focusing too narrowly on single episodes, which risks give a distorted picture of reality.

However, crime is only another aspect of the living conditions of immigrants, on a par with education and work, illness and health, etc., and is therefore a natural part of this project – as, for example, it also is in comparable Norwegian and Swedish studies.

The connection with the general theme of this book, namely the employment situation, is perhaps less obvious for crime than for other aspects, but just as an employer can require a specific qualification for a job, so can having a clean record also be decisive.

For this project, *crime rates* for both Western and non-Western immigrants and descendants and Danes have been calculated, based on data from Statistics Denmark on *decisions* of the state prosecution and courts for violations of criminal, traffic and special laws. In other words, the proportions in the various groups that have been registered for one or more such offences.

The figures are mainly based on the average for the period 1993-98, but in addition, all persons who appeared in the population statistics on January 1st., 1993 have been followed throughout the period.

Decisions must necessarily be based on reported, registered *and* solved crimes. The results must therefore be qualified by the probable existence of hidden crime and of different detection rates, etc. In other words, not all offences are detected or reported, and not all reported offences are recorded by the police. In the same way, detection rates vary for different types of crime.

Like comparable, previously published studies, this study also shows an overrepresentation of especially young non-Western men in crime rates. While Danish men in the 16-29 age group have crime rates of around 8%, non-Western immigrants and descendants in the same age group have rates of 12-14% and 17-19% respectively. On the other hand, apart from the very young descendants in the 16-19 age group, immigrants and descendants from Western countries have lower crime rates than Danes in the same age group.

A clear age effect can be seen for all groups, proportions namely falling after the age of 30. The same picture applies when following the same person over a number of years.

Non-Western women also have relatively higher rates than other women, but for both immigrants and descendants and Danes, women have a significantly lower crime level than men.

Furthermore, crime increases with population density, especially for male non-Western descendants. This tendency is not clear-cut, however.

While relatively many Danes have been booked for traffic offences, among non-Western immigrants and descendants it is criminal offences that dominate. This applies to both men and women. The picture for Western descendants and – especially – immigrants resembles more that for Danes.

The most frequent penalty for all groups is fines, but relatively more offenders among non-Western men are given jail sentences.

A breakdown by nationality shows an effect for the group with the highest crime rates, namely men from non-Western countries. Among those with Danish citizenship, 7.7% have been registered for violations of criminal, traffic and/or special laws. The corresponding figure for those with a foreign nationality is 9.8%.

The study reflects actual crime rates of the various groups as they appear in the official registers. As all other similar studies point out, however, in addition to gender, age and place of residence, a number of other factors – e.g. family circumstances, receipt of social benefits, income, socioeconomic class and education – also play a part. Another significant factor, albeit one difficult to measure, is the degree to which people feel isolated personally or in relation to the surrounding society, i.e. whether people have a network.

However, this does not alter the fact that it is actual crime according to the record which may have direct importance for employment.

2.6 The relation between immigration and income distribution

The analysis on this theme was conducted by professor Dr. Eskil Wadensjö from Stockholm University. His work was performed over several years, with the most recent results published in *Immigration and the public sector in Denmark* (Aarhus University Press, under publication).

Immigration can influence the economy of the host country in several different ways, both directly and indirectly. Directly, immigration can influence wages and prices. Among the indirect effects of immigration are those which influence the public sector and economic policy. These indirect effects can be divided into two groups.

The first group results from the fact that the public sector redistributes resources among individuals and groups of individuals, on the basis of factors such as family status, age and labour market circumstances. The immigration of a group involves a transfer to and from the group, via taxes, transfers and public consumption. This can result in net transfers to and from the rest of the population.

The second group of factors affects public policy results by the fact that immigration can influence a country's economy and, thereby, also indirectly influence the circumstances on which economic policy is based, as well as that policy itself.

This part of the chapter presents two analyses: One on income redistribution through the public sector (fiscal effects) between immigrants and non-immigrants, the other on the income distribution of immigrants compared to that of non-immigrants.

2.6.1 Income redistribution through the public sector

Studies conducted in different countries in recent years indicate that a redistribution of resources via the public sector to immigrants occurs especially to immigrants who come from countries that differ most from the host country in terms of economy. The studies also indicate that these results are highly dependent on the fact that these particular groups of immigrants have a very low rate of employment.

The present study covers four years, 1991, 1995, 1996 and 1997, using data from the Danish Ministry of Economic Affairs Law Model. The Law Model contains information on a sample of the population living in Denmark. The data for 1996 consists of 147,289 individuals.

There was data for each person on taxes paid, transfers received, and public consumption. The major part of public consumption is distributed on individuals. The main exceptions are expenditures for defence, and central governmental

administration. The transfers and costs for public consumption of children under 18 are included in that of their parents.

The study on the fiscal effects in Denmark reported here produces results that are similar to earlier studies for other countries. There is a net transfer from immigrants from Western countries. This pattern appears to have been stable during the 1990s. On the other hand, the transfers to immigrants from non-Western countries, i.e. immigrants from countries other than those with the most highly developed economies, are considerable.

This can be attributed to two factors, the first of which is the age composition. Relatively many non-Western immigrants are young, and many have children, and income redistributed via the public sector goes, as well as elsewhere, to children and families with dependent children. The second factor is the employment rate. Immigrants from non-Western countries are employed to a far lesser extent than Danes, and also appreciably less than Western immigrants.

Though transfers per non-Western immigrant decreased somewhat in real terms between 1995 and 1996, since the number of immigrants increased, total transfers have risen in both years. Between 1996 and 1997, both transfers per person and total transfers fell. Measured as a proportion of GDP, these fell from 0.91% in 1996 to 0.84% in 1997. Since the employment situation improved after 1997, net transfers have probably been reduced even further (see also figure 2.2).

Calculations based on individual data show the importance of the employment rate for the size of net transfers. At the average employment rate for non-Western immigrants (26.0%), net transfers are DKK -61,000 per person. With an employment rate of zero, it is DKK -113,000, and with an employment rate of 100, it is DKK 87,000 (i.e. in the latter case, *to* the public sector). Net transfers are zero at an employment rate of 56.6%.

The public sector consists of different subsectors, each with its own decision-making competency: The state, local and county authorities, and the unemployment insurance system. Net transfers to non-Western immigrants come first and foremost from local authorities and the unemployment insurance system, and to a lesser extent from the counties.

It is important to note the large net transfers from local authorities to non-Western immigrants. This deficit can make local authorities less willing to accept immigrants from non-Western countries.

While it is true that there is a redistribution system for channelling money from rich local authorities to those with a small tax base and a heavy burden of expenditure, it is not certain that this is sufficient to cover the extra costs.

Figure 2.2. Net transfers to non-Western immigrants as a proportion of GDP in 1991-98 (the figure for 1998 is estimated)

Source: Viby Mogensen and Poul Chr. Matthiessen (2000)

2.6.2 How does immigration affect income distribution?

The next analysis deals with two other distribution questions: 1) How large are immigrants' disposable incomes compared with Danes'? 2) How does immigration affect Danish income distribution and wage structure via the market?

The study shows that, on average, Western immigrants have a slightly higher disposable income than Danes, while non-Western immigrants have decidedly lower incomes (see also table 2.1 below). On average, the disposable incomes of the non-Western group of immigrants are about ¾ of Danes'. The welfare state neutralises much of the differences, due to the market, but not all.

Even though non-Western immigrants are markedly overrepresented among those with the lowest incomes, a very large majority (85%) of those with the lowest incomes are nevertheless Danes.

Immigration can affect Danes' incomes and wages via the market (via wages and prices). Provided it is not marginal, immigration can, by reducing the compensation to labour (i.e. wages), result in an economic surplus which accrues to other agents in the economy, including private and collective owners of capital.

All the indications are, however, that this form of economic "surplus" is of minor proportion, but further research is required in order to draw any unambiguous conclusions.

Until then, the rather considerable welfare gains from improved integration of the non-Western immigrants into the labour market must be one of the central results of the research.

Table 2.1. Net income (DKK) in 1997 according to country of origin and age

	Danes	Western immigrants		Non-Western immigrants		All three groups
Age	DKK	DKK	% of the net income of Danes	DKK	% of the net income of Danes	DKK
18-24	138,755	108,248	78.0	112,593	81.1	137,216
25-29	140,552	120,350	85.6	115,697	82.3	138,903
30-39	145,160	140,992	97.1	112,622	77.6	143,253
40-49	163,306	157,370	96.4	123,998	75.9	161,822
50-59	175,158	187,508	107.1	133,850	76.4	174,535
60-66	148,232	164,453	110.9	123,259	83.2	148,125
67-	118,174	131,926	111.6	128,210	108.5	118,537
All	146,194	148,628	101.7	112,057	76.6	144,822

Source: Viby Mogensen and Poul Chr. Matthiessen (eds.) (2000)

3. Integration into the labour market - and the importance of socioeconomic factors

By Marie Louise Schultz-Nielsen

3.1 Introduction

This and the following chapter deals with the integration of immigrants and descendants into the labour market. The special focus on integration into the labour market is due to the fact that precisely employment is by far the main determinant of both immigrants' and descendants' living conditions and their general integration into Danish society. First and foremost, of course, work provides an income, which enables the employed to be self-supporting. The very fact of having a job, however, also gives people the feeling of being needed, and means that they have a social network outside the family through which they can increase their knowledge of Danish society.

In the following, being integrated into the labour market is equivalent to having a job. Based on this definition, of course, a lot of Danes are not integrated into the labour market either. Section 3.2 therefore compares the employment rate of immigrants with that of Danes.

This is followed by an analysis of the factors which determine whether immigrants and descendants get and keep a job. The analyses include all persons of working age, i.e. between 16 and 66 (both years inclusive).

For both Danes and immigrants, some of the persons outside employment will be on early retirement benefit or early retirement pension (collectively: early retirers) who have perhaps been active in the labour market for many years. There will also be a lot of students, who are in the process of qualifying themselves for the job market. It might therefore seem reasonable to exclude these groups, and thus limit the population to those actually in the labour force, i.e. the employed and the unemployed. However, this would ignore hidden unemployment, which among others includes immigrants on cash benefits, but who are not yet registered as unemployed at the job centre because they are at a Danish course, etc., cf. Hans Hummelgaard et al. (1995).

Excluding these groups would also ignore the fact that a large proportion of early retirers can indicate that some persons are forced out of the job market against their will. As a rule, therefore, the analyses in chapter 3 and 4 are based on all persons between 16 and 66, but where it can be relevant to include results based on the labour force, this is also done.

In section 3.2, immigrants' integration into the labour market is illustrated by the employment situation for immigrants in the period 1985-98, distributed by sex

for immigrants and descendants respectively and by country of origin. Section 3.3 analyses how employed wage earners among non-Western immigrants and descendants found jobs, while section 3.4 does the same for the self-employed. Section 3.5 discusses how the employment situation for immigrants and descendants has been affected by various socioeconomic factors. Among other things, this section looks at the employment situation for immigrants who came to Denmark at different periods, and calculates whether employed immigrants are actually financially better off working. Section 3.6 sums up the results of the chapter.

3.2 The participation rate 1985-98

This section takes a closer look at the employment situation among immigrants and Danes on January 1st. in the period 1985-98. The results in this section are based on register data for all immigrants and a 2% sample of Danes.[2] The following is based on the participation rate for 16-66-year-olds, defined as the proportion of 16-66-year-olds who are employed.[3] Employment is partly determined by the proportion of the 16-66-year-olds in the labour force and partly by the proportion of the labour force who are actually employed.

These two factors can be illustrated by the participation rate and the unemployment rate respectively.[4] The participation rate is calculated on the basis of the register-based labour force statistics per November the previous year, while unemployment is based on average degrees of unemployment for the year in question in CRAM (the National Labour Market Authority's Central Register for Labour Market Statistics).

Both sets of figures are calculated using Statistics Denmark's calculation methods. It should be noted, however, that these methods can slightly underestimate the labour force insofar as immigrants' attachment to the labour market improves with length of stay, and economic conditions in general will also have a positive effect on the size of the labour force. The former factor does not apply to Danes, inasmuch as there is no new influx of persons to this group in the same way.

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[2] For a definition of "Danes", "immigrants", and "descendants", and the division into "Western" and "non-Western" countries, see the introduction to the book.

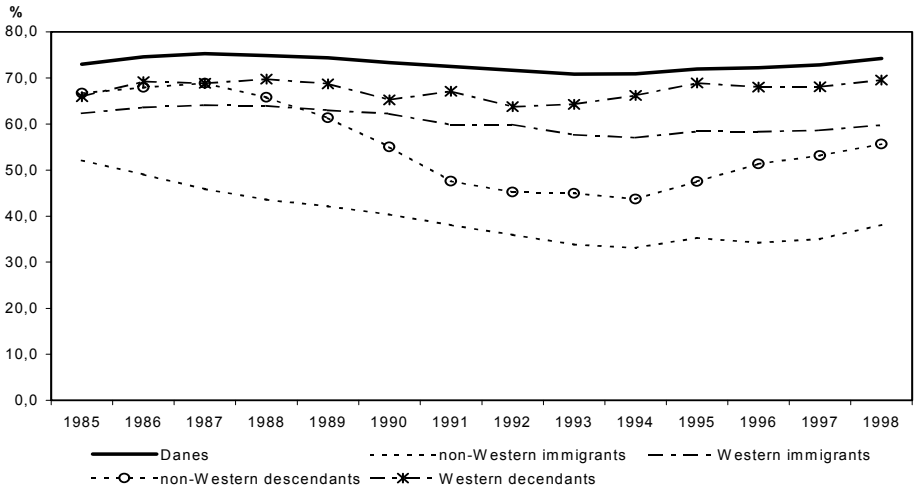
[3] In practice calculated as: Participation rate * (1 – the average unemployment rate). The participation rate and unemployment for the period 1985-98 are shown in appendix table 3.1 and 3.2.

[4] The employed also include persons in subsidised employment who receive wages under employment, but not persons in job training schemes, cf. Statistics Denmark, 1999. In November 1998, persons in subsidised employment constituted 1.4% of employed Danes, against 5.1% of employed immigrants and descendants from less developed countries, cf. special data run from Statistics Denmark, published on the Danish Employers' Confederation's homepage (www.da.dk).

What this means in practice is that, for example, the employment rate for 1997 would increase by up to 3% for non-Western immigrants and 2% for Western immigrants if the labour force had been estimated on the basis of figures per November 1997 rather than per November 1996. That the more recent figures were nonetheless not used is because this would mean departing from the calculation method normally used by Statistics Denmark, and that information for part of the population would be lacking.

Figure 3.1 shows the trend in the employment rate for immigrants and descendants from both Western and non-Western countries and for Danes.

Figure 3.1. The employment rate for immigrants and descendants in the 16-66 age group (inclusive) from Western and non-Western countries, 1985-98



Source: Own calculations based on register data from Statistics Denmark.

The employment rate for Danes rose from 73% in 1985 to 75% in 1987, and then fell to 71% in 1993 and 1994. Since then the rate has been rising, reaching 74% in 1998. This should be seen against the background of a participation rate for Danes of about 80% throughout the period – slightly rising up to 1988 and since falling. At the same time, the average number of unemployed persons as a percentage of the labour force fell from 9% in 1985 to 7% in 1987. Unemployment then increased to 12% in 1993, but has since fallen as the economy revived. In 1998, unemployment among Danes was 6%.

The employment rate for Western immigrants largely parallels that for Danes, albeit at a rather lower level – 15 percentage point lower in 1998. At the same time, the gap between the employment rate for Danes and Western immigrants widened slightly between 1985 and 1998.

The employment rate is higher for descendants than for immigrants from Western countries, but lower than for Danes.

In 1985, the employment rate was more or less the same for the (relatively few) descendants from Western countries and non-Western countries, but has since fallen sharply for the latter, especially in the period 1987-91. This was not due to rising unemployment, however, which remained unchanged between 1987 and 1990, but to a fall in the participation rate for non-Western descendants.

This fall is to a large extent age-determined, the number of 16-20-year-old non-Western descendants increasing rapidly from the end of the 1980s, and few in this young cohort (like other young persons) being in work yet. If, therefore, the employment rate for immigrants and descendants is calculated as though they had the same age distribution as Danes, the trend in the employment rate among non-Western descendants more or less resembles that for Western descendants, though with a slightly lower rate in the period 1989-94.[5] An adjustment for age does not make much difference to the employment rate for Western descendants and immigrants from Western and non-Western countries.

A change in the age composition among immigrants from non-Western countries thus cannot explain why the employment rate fell from 52% in 1985 to 33% in 1994 and then rose again to 38% in 1998. There was a strong increase in unemployment among non-Western immigrants from 1987 to 1994, however, and even though this fell rapidly up to 1998, unemployment is still four times higher than for Danes, compared with barely three times as high in 1985. At the same time, the participation rate for non-Western immigrants fell from 70 in 1985 to 50 in 1998.

In general, therefore, as figure 3.1 shows, the employment rate is significantly lower for immigrants from non-Western countries than for the other groups, and this gap has widened considerably in the period 1985-98. Thus, in 1985, the employment rate was 1.4 times higher for Danes than for immigrants, compared with nearly twice as high in 1998, even after the gap had narrowed somewhat after 1994.

However, it cannot be concluded from this alone whether Danes or immigrants have benefited most from this economic upswing. Even though the employment rate rose more for non-Western immigrants than Danes in 1994-98, the participation rate fell most and unemployment least for immigrants – simply because there was a substantially lower proportion of immigrants in employment to start with.

[5] See chapter 5 for a more detailed description of the standard calculation.

All in all, however, there has been a strong fall in the employment rate for non-Western immigrants in the period 1985-98. One reason for this could be that a lot of new immigrants have come to Denmark in the same period, and that, to start with, these have a relatively weak attachment to the labour market. Another possible reason is that immigrants who come at different times have also coped differently (cf. the discussion in section 3.5).

Since the attachment to the labour market for immigrants and descendants from Western countries, measured by the employment rate, does not differ greatly from the population as a whole, the following discussion focuses solely on immigrants and descendants from non-Western countries. As regards descendants, we already know that part of the difference between them and Danes is due to age.

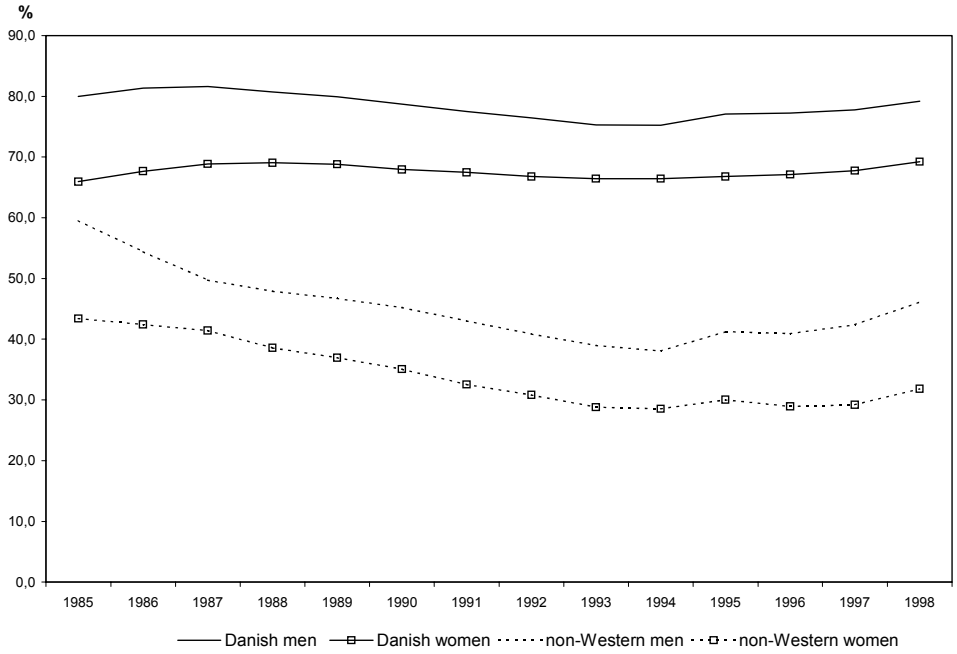
The number of non-Western descendants between 16 and 66 is limited, however, and many of the estimations for descendants will therefore be rather uncertain. Due to both this and reasons of space, therefore, immigrants and descendants will normally be lumped together in the following. Notwithstanding, it should be remembered that the employment situation is generally much better for descendants than for immigrants.

Figure 3.2 shows the employment rate for Danish men and women and men and women from non-Western countries. Here, therefore, immigrants and descendants are shown together.

The employment rate for women in Denmark is generally lower than for men, and even more so among non-Western immigrants. Thus, in 1998, the employment rate for Danish men was 79%, compared with 46% for non-Western men, the corresponding figures for women being 69% and 32% respectively. The employment rate for both men and women from non-Western countries fell in the period – it was 1.4 times higher for Danish women than for women from non-Western countries in 1985, but 2.2 times higher in 1998. For men, the rate was 1.3 times higher for Danes than for non-Western immigrants in 1985, against 1.7 times higher in 1998.

The trend in the employment rate is due in part, of course, to the slight fall in the participation rate for Danish men throughout the period and the slight rise for Danish women. Much more important, however, is the fact that, for both men and women from non-Western countries, the participation rate has fallen considerably in the period, though most for women. For men, the participation rate fell especially rapidly between 1985 and 1987, while for non-Western women it has fallen steadily throughout the period. Moreover, unemployment among women from non-Western countries is higher than for men, as for the population as a whole.

Figure 3.2. The employment rate for men and women in the 16-66 age group (inclusive) from non-Western countries and Danes, 1985-98



Source: Own calculations based on register data from Statistics Denmark.

At the same time, unemployment among non-Western men seems to be more cyclical than for women, falling much more rapidly up to 1986 and then rising more swiftly up to 1994. The latter can be due to the fact that men are employed in industries that are more sensitive to economic fluctuations (see section 3.3 below).

Up to now, the focus has been on persons from non-Western countries as a whole. Table 3.1 shows the employment rate by country of origin.

For the sake of clarity, the table is for selected years only, namely 1985, 1991 and 1998. As can be seen, there are considerable variations in the employment rate both between the various countries and over time. The changes over time are connected with the number of new arrivals in each group, of course, since these must be assumed to have a weaker attachment to the labour market than the more established immigrants.

The fall in the employment rate for persons from Ex-Yugoslavia from 49% in 1991 to 32% in 1998 is due to the large number of civil war refugees from that country in 1991-93, which is also reflected in the rise in the number of 16-66-

Table 3.1. Employment rate for 16-66-year-old immigrants and descendants by country of origin, plus Danes, for selected years

	1985		1991		1998	
	%	No.	%	No.	%	No.
Ex-Yugoslavia[1)]	60	5,699	49	8,078	32	25,955
Iran[1)]	19	860	16	7,086	39	9,072
Lebanon[1)]	59	234	12	5,563	20	8,943
Pakistan[1)]	49	5,463	38	7,304	42	10,730
Poland[1)]	54	4,534	48	7,045	56	8,889
Somalia[1)]	39	121	14	520	6	6,648
Turkey[1)]	50	11,804	38	19,009	44	27,929
Vietnam[1)]	35	2,383	32	4,308	46	6,781
Other non-Western countries[1)]	56	19,626	44	33,892	43	58,304
Non-Western countries, total[1)]	52	50,724	38	92,805	39	163,251
Danes[2)]	73	62,746	73	63,505	74	63,563

Notes: 1) All non-Western immigrants and descendants
2) Representative sample of 2% of the whole population, excluding immigrants and descendants

Source: Own calculations based on register data from Statistics Denmark.

year-olds from 8,078 in 1991 to 25,955 in 1998. The same applied to persons from Lebanon (who in reality are often stateless Palestinians), whose number rose considerably from 1985 to 1991, while the employment rate fell. Iranian immigrants began coming to Denmark as early as 1984-85, and this is reflected in an employment rate for this group of only 19% in 1985, while the employment rate approached 40% in 1998. Most Somali immigrants have come only in recent years, however, with the result that the employment rate for this group was extremely low in 1998.

In general, Poles had the highest employment rate among non-Western immigrants and descendants in the period 1985-98, due to their relatively high participation rate and low unemployment. The employment rate is also relatively high for persons from Turkey, Pakistan and ex-Yugoslavia (up to the mid-1990s), which are the countries of origin for guest workers who came to Denmark up to 1973. In 1985, the participation rate for Turks, Pakistanis and Yugoslavs was only marginally lower than Danes'. Due to a higher unemployment among these groups, however, they still had a lower employment rate than Danes. Since then, the participation rate for persons from these countries has fallen steadily, while unemployment climbed up to 1994 and has since been falling.

All persons from the eight non-Western countries have a lower employment rate than Danes. What is more noteworthy, however, is the big variation in the employment rate between the countries, and that this gap is actually bigger than the difference between the employment rate for Danes and Poles. It is also worth noting that the polarisation tendency between the countries of origin seen here is also replicated in education and language (cf. chapter 2).

3.3 Main areas of employment for immigrants and descendants

As section 3.2 showed, many immigrants, especially from non-Western countries, have a weak attachment to the labour market. Notwithstanding, many also have jobs, and the type of jobs they have will therefore be examined in the following. This section deals with employed wage earners among immigrants and descendants and the trend in employment for this group from 1985 to the present. The self-employed are discussed separately in section 3.4.

Due to lack of space, the analysis is based on cross-section data from the beginning and end of the period.

Table 3.2 shows employed wage earners by occupation for 1985 and 1996, based on persons registered as residing in Denmark on 1/1-1985 and 1/1-1998 and their attachment to the labour market in November 1984 and 1995 respectively. The year 1996 was chosen, despite the availability of more recent figures, because occupational categories were changed after this year, and are therefore not comparable with previous years.

Table 3.2. Employed wage earners. 16-66-year-old (inclusive) immigrants and descendants and Danes by occupation, 1985 and 1996. %.

	Non-Western immigrants and descendants[1)]				Danes[2)]			
	1985		1996		1985		1996	
	Men	Women	Men	Women	Men	Women	Men	Women
Own occupation:								
Salaried employees in upper levels	15.2	12.7	13.7	13.1	27.7	18.1	27.4	23.6
Sallaried employees in lower levels	9.7	21.2	10.8	17.8	16.6	41.3	15.8	37.7
Skilled workers	11.5	1.3	12.9	4.5	23.8	2.0	21.9	2.5
Non-skilled workers	53.5	52.9	41.1	41.9	23.5	27.3	22.4	22.3
Other employed wage earners	10.2	11.8	21.5	22.7	8.4	11.3	12.6	13.8
Total	100	100	100	100	100	100	100	100
Colleagues' occupation[3):]								
Salaried employees in upper levels	19.5	23.0	19.4	24.8	21.6	25.5	23.3	29.5
Salaried employees in lower levels	18.2	25.6	17.8	23.1	22.2	32.5	22.3	30.4
Skilled workers	15.7	6.7	14.9	7.3	20.1	6.1	18.4	6.1
Non-skilled workers	35.0	32.0	28.4	25.1	25.7	25.5	22.4	18.9
Other employed wage earners	11.6	12.7	19.5	19.7	10.4	10.4	13.6	15.1
Total	100	100	100	100	100	100	100	100
No., total	14,995	9,229	25,214	17,820	21,884	18,973	22,310	20,283

Notes: 1) All non-Western immigrants and descendants
2) Representative sample of 2% of the whole population, excluding immigrants and descendants
3) By colleagues is meant other persons in the workplace

Source: Own calculations based on register-based labour market statistics from Statistics Denmark.

In a comparison over time, the results can vary with the years selected, of course, e.g. cyclical fluctuations can have an influence on wage earners' distribution by occupation and sector. Here, however, both the beginning and end of the

period were times of economic recovery, with around 9% unemployment for the population as a whole in both 1985 and 1996. Unemployment fell to just under 7% in 1998, though this does not seem to have greatly influenced the results.

As can be seen from the table, the proportion of other employed wage earners rose from 1985 to 1996, which makes it harder to precisely interpret the changes in the occupational composition of wage earners in the period.[6] Nevertheless, the picture that emerges is that, in 1985, a large proportion of non-Western immigrants were – and in 1996 still are – employed as non-skilled workers, though less so at the end than at the beginning of the period. In the same period, the proportion of non-skilled workers in the population as a whole also fell, especially among women.

In 1985, the proportion of salaried employees in upper levels was clearly lower among immigrants and descendants than among Danes, and the gap seems to have widened in the period to 1996. For men, the proportion of salaried employees in upper levels fell slightly among immigrants and descendants, while it has remained more or less unchanged among Danes. For women, on the other hand, the proportion has remained unchanged for immigrants and descendants, but increased for Danes. In both 1985 and 1996, immigrants and descendants are considerably underrepresented among salaried employees in lower levels.

Skilled workers are overwhelmingly men. Table 3.2 shows that they are also seldom immigrants or descendants. 4.5% of female immigrants and descendants are skilled workers, and while this is not high compared with male immigrants and descendants, it is nevertheless higher than among Danish women. Grouped by industry (not included here), 43% of skilled non-Western women are employed in the hotel and restaurant trade. Studies from Norway show that there are relatively many girl apprentices among immigrants from non-Western countries (cf. Tor Jørgensen, 1997).

Based on data analyses in Statistics Denmark's IDA register database, it is possible to see which occupations respondents' colleagues in the workplace had. From 1985 to 1996, the proportion of salaried employees in upper levels increased for Danish wage earners, but increased even more for their colleagues. This "upgrading" of the labour market has only partly benefited non-Western women, however, and not benefited non-Western men at all: The proportion of non-Western men in this category appears to have fallen, and is unchanged for their colleagues. On the other hand, a higher proportion of immigrants and descendants than Danes are in non-skilled jobs both in 1985 and 1996, even though the proportion of non-skilled colleagues has been falling in the period, also among immigrants.

[6] A large part of this group consists of younger persons (including students with part-time jobs) in small firms with less than 10 employees.

Table 3.3 shows employed wage earners between 16 and 66 by industry and other workplace-related factors. The industrial classification is shown for immigrants and descendants as a whole.

As previously shown by Marius Ejby Poulsen and Anita Lange (1998), even though there are more wage earners among descendants in the wholesale and retail trade, hotels and restaurants, the distribution by industry of employed descendants from less developed countries[7] is largely similar to that for immigrants.

Table 3.3. Employed wage earners, 16-66, by industry and workplace, 1985 and 1988. %.

	Non-Western immigrants and descendants[1]				Danes[2]			
	1985		1998		1985		1998	
	Men	Women	Men	Women	Men	Women	Men	Women
Industry:								
Agriculture, fishing and quarrying	1.1	1.4	2.5	1.8	3.6	1.1	3.0	1.1
Manufacturing	43.3	25.1	29.2	18.2	26.5	14.0	24.3	12.1
Electricity, gas and water supply	0.6	0.2	0.3	0.2	1.1	0.3	1.0	0.3
Construction	3.1	0.5	2.7	0.4	10.7	1.2	10.0	1.1
Sales and repairs	9.1	7.7	13.2	11.2	15.4	13.2	16.7	12.7
Hotels and restaurants	5.7	4.5	9.4	6.7	1.3	2.8	1.7	3.1
Transport, post and communications	8.2	2.8	10.6	3.0	7.0	1.7	9.0	4.1
Financial intermediation, etc.	7.7	12.0	12.3	17.3	8.4	9.8	11.3	11.1
Public and personal services	20.3	45.1	19.8	41.3	23.0	54.1	22.9	54.4
Not stated	0.9	0.7	0.0	-	3.0	1.8	-	-
Total	100	100	100	100	100	100	100	100
Workplace:								
Private	79.5	62.7	87.6	73.0	78.7	54.8	83.2	62.1
Public	19.6	36.5	12.4	27.0	21.2	45.0	16.8	37.8
Not stated	0.9	0.8	-	-	0.1	0.1	-	-
Total	100	100	100	100	100	100	100	100
No. of employees:								
1-4 employees	5.5	4.6	10.8	6.8	8.9	6.8	7.2	5.9
5-19 employees	14.7	13.4	19.2	19.9	22.6	20.2	22.8	22.7
20-99 employees	27.1	28.3	29.8	31.9	31.4	29.0	33.6	32.0
100 and over	52.8	53.7	40.3	41.4	37.2	44.0	36.4	39.4
Total	100	100	100	100	100	100	100	100
No., total	14,995	9,229	32,733	23,768	21,884	18,973	22,910	20,888

Notes: 1) All non-Western immigrants and descendants
2) Representative sample of 2% of the whole population, excluding immigrants and descendants

Source: Own calculations based on the register-based labour force statistics.

As can be seen from the above table, immigrants and descendants from non-Western countries are employed in manufacturing to a larger extent than Danes. Employment in this sector fell significantly between 1985 and 1988, however,

[7] Defined as by the UN.

especially for immigrants and descendants and to a lesser extent also for Danes. Thus, the proportion of male immigrants and descendants in manufacturing fell from 43.3% in 1985 to 29.2% in 1998, while for Danish men it only fell from 26.5% to 24.3% in the same period.

Since 1985, the proportion of non-Western men in other industries, e.g. financial intermediation, sale and repairs, and hotels and restaurants, has risen. Female immigrants and descendants are especially employed in the public and personal services sector, though the proportion is not as high as for Danish women, more than half of whom are employed in this sector.

With regard to the workplace, only 27.0% of immigrant women were employed in the public sector in 1998, compared with 37.8% of Danish women. The corresponding figures for men are 12.4% and 16.8% respectively for the same year. It is striking that relatively few immigrants are employed in the public sector, and that the proportion has been falling over time. Compared with 1985, the proportion of non-Western immigrants in public employment has fallen considerably more than for Danes. The general fall in the proportion of public employees is in part due to the increase in privatisation and contracting services out. Whether a person is a public or private employee is determined by the specification of company ownership in the registers. Thus, for example, bus drivers and cleaners can be employed in the same workplace in both 1985 and 1998, but because of privatisation, etc., their previously state, county or municipal workplace can today be registered as a limited company. This means that employees in the table change status from public to private employees. The results and changes over time should therefore be seen in this light.

In 1985, over half of immigrants and descendants were employed in firms with more than 100 employees (cf. table 3.3). This proportion has fallen by more than 12 points in the period – presumably because fewer and fewer are being employed in manufacturing companies. A large proportion are now employed in workplaces with fewer employees. From being primarily employed in very large workplaces in 1985, men from non-Western countries in particular are now, more than Danes, being employed in very small workplaces with less than five employees.

3.4 The self-employed

This section deals with self-employed persons and assisting spouses (in the following called self-employed), including, as for wage earners, a breakdown by industry for immigrants and descendants and Danes in 1985 and 1998. To begin with, however, we will look at the proportion of self-employed among Danes and immigrants and descendants respectively.

It is often heard in the public debate that a far higher proportion of immigrants and descendants are self-employed than Danes. While this is true for the employed, however, it is not the case for all persons in the 16-66 age group (cf. table 3.4).

Table 3.4. Proportion of self-employed between 16 and 66 (inclusive) among immigrants and descendants and among Danes on 1/1-1998. %.

	Non-Western immigrants and descendants[1)]	Danes[2)]
Proportion of self-employed among all employed persons between 16 and 66	13	8
Proportion of self-employed among all persons between 16 and 66	5	6
Total number	163,251	63,563

Notes: 1) All non-Western immigrants and descendants on 1/1-1998
2) Representative sample of 2% of the whole population, excluding immigrants and descendants

Source: Own calculations based on the register-based labour force statistics.

A relatively large proportion of employed immigrants and descendants from non-Western countries are self-employed, namely 13%, compared with an average of 8% for Danes. For all persons between 16 and 66, however (i.e. not just the employed), the self-employed make up 5% of non-Western immigrants and descendants against 6% of Danes. Thus, the proportion of self-employed among immigrants and descendants of working age is about the same as for the rest of the population, while the proportion of employed wage earners is considerably lower (see also Eskil Wadensjö, 1999). The corresponding figures for wage earners between 16 and 66 are 35% of immigrants and descendants and 69% of Danes.[8]

Table 3.5 shows the self-employed by industry in 1985 and 1998. As can be seen, there are very big differences here between non-Western immigrants and descendants and Danes.

A large proportion of self-employed Danes are in the agriculture, fishing and quarrying industries, unlike immigrants and descendants, almost none of whom are in the primary sector. The great majority of self-employed immigrants and descendants are in the sale and repairs and hotels and restaurants trades.

[8] That the sum of employed wage earners and self-employed as a percentage of all persons between 16 and 66 is not identical with the employment rates earlier in the chapter is because the figures here are based solely on the register-based labour force statistics.

While there have been a number of changes in the distribution by industry in the period 1985-1998, these have not been enough to close the gap between immigrants and descendants and Danes to any significant extent.

As previously mentioned, a large proportion of self-employed Danes are in the agriculture, fishing and quarrying industries, although it has fallen considerably since 1985. The proportion of immigrants and descendants in these industries has also fallen in the period, and in 1998 is almost negligible compared with the general population.

Table 3.5. Self-employed immigrants and descendants and Danes in the 16-66 age group by industry, 1985 and 1998. %.

	Non-Western immigrants and descendants				Danes[1)]			
	1985		1998		1985		1998	
	Men	Women	Men	Women	Men	Women	Men	Women
Industry:								
Agriculture, fishing and quarrying	1.8	4.4	0.4	2.4	40.3	37.1	28.4	18.6
Manufacturing	5.4	7.6	2.1	2.8	6.6	6.1	7.1	5.6
Electricity, gas and water supply	-	-	-	0.1	-	-	0.2	0.1
Construction	1.5	0.6	1.0	0.6	10.3	3.8	11.8	2.6
Sale and repairs	36.3	31.0	36.9	28.5	17.7	22.4	18.9	23.6
Hotels and restaurants	19.6	23.3	33.2	23.8	2.7	5.1	3.1	6.4
Transport, post and communications	7.0	1.4	6.7	1.1	5.4	2.6	6.4	3.3
Financial intermediation, etc.	7.7	7.2	6.6	11.5	7.4	5.4	14.0	9.5
Public and personal services	5.8	8.5	3.6	8.8	5.2	9.8	6.1	18.4
Not stated[2)]	14.9	16.0	9.6	20.3	4.4	7.5	4.0	11.7
Total	100	100	100	100	100	100	100	100
Total number	1,466	720	6,173	2,306	3.388	1,796	2,544	1,101

Notes: 1) 2% sample of the population between 16 and 66, excluding immigrants and descendants

2) The large proportion of not stated is especially due to the fact that the Central Register of Enterprises and Establishments on which the variable is based does not include self-employed persons who are not subject to VAT.

Source: Own calculations based on the register-based labour force statistics.

2.1% of self-employed non-Western men and 2.8% of women were in manufacturing in 1998, against 7.1% and 5.6% respectively for Danes. This difference has emerged since 1985, when the figures for the two populations were almost the same.

The construction industry is traditionally a male preserve, and there were only 2.6% of self-employed Danish women in this industry in 1998, compared with 11.8% for men, a level that has more or less stayed the same since 1985. There are very few self-employed immigrants and descendants in this industry, however – only 1% of self-employed men and 0.6% of self-employed women in 1998.

Self-employed immigrants are strongly overrepresented in sale and repairs, 36.9% of self-employed men and 28.5% of self-employed women from non-Western countries running a business in these trades in 1998. This is substantially more than the figure of about 20% for self-employed Danes.

Immigrants and descendants are also significantly overrepresented in the hotel and restaurant sector, where 33.2% of men and 23.8% of women had businesses in these trades in 1998. The corresponding figures for Danes were 6.4% and 3.3% respectively.

Self-employed women from non-Western countries were underrepresented in transport, post and communications and public and personal services in 1998. The same applies to non-Western men in financial intermediation.

Up to now, the focus has been on self-employed non-Western immigrants as a whole. Table 3.6 shows the self-employed by country of origin. As can be seen, there are big differences in the proportion of self-employed between the countries. The lowest proportions are among persons from Somalia and ex-Yugoslavia, where under 2% of the 16-66-year-olds are self-employed. This very low figure can in part be due to the fact that many of these immigrants have only been in Denmark a short time in 1998, and have therefore not yet entered the labour market. Since the proportion of employed persons is much higher for ex-Yugoslavia, however, this can hardly be the whole explanation for this group.

Table 3.6. The self-employed in 1998 by country of origin

	Proportion of all persons between 16 and 66 who are self-employed, %	Most frequent industry (proportion of all self-employed)	%	Total No.
Denmark[1)]	6	Agriculture, fising and quarring	(26)	3,645
Ex-Yugoslavia	1	Sales and repairs	(30)	342
Iran	9	Hotels and restaurants	(43)	837
Lebanon	6	Sale and repair	(48)	504
Pakistan	10	Sale and repair	(54)	1,025
Poland	5	Sale and repair	(32)	447
Somalia	0	Sale and repair	(58)	26
Turkey	7	Hotels and restaurants	(49)	1,991
Vietnam	7	Hotels and restaurants	(67)	495
Other non-Western countries	5	Sale and repair	(34)	2,812

Note: [1)] 2% sample of the population between 16 and 66, excluding immigrants and descendants
Source: Own calculations based on the register-based labour force statistics.

The proportion of self-employed is highest among Pakistanis and Iranians, where 10% and 9% of the 16-66-year-olds respectively are self-employed. The table also includes the biggest sector (measured by number of self-employed) and the proportion of the self-employed from the various countries in this sector.

As mentioned above, agriculture, fishing and quarrying is the biggest sector among Danes, 26% of the self-employed being in these industries. The hotel and restaurant trade is the dominant sector among persons from Iran, Turkey and Vietnam, on the other hand, while the self-employed from ex-Yugoslavia, Lebanon, Pakistan, Poland and Somalia are most often found in the sale and repair industry. The proportion of self-employed from the various countries concentrated in the dominant industry for that country varies widely, however. For example, 67% of self-employed Vietnamese are in the hotel and restaurant trade, while only 30% of persons from ex-Yugoslavia and 32% from Poland are self-employed in the dominant trade for these countries, namely sale and repairs.

Data from various registers have been used in the discussion of integration into the labour market up to now, the advantage of which is that they constitute total censuses of all non-Western immigrants. The registers cannot provide information about all relevant questions, however. Some of these are therefore asked in the questionnaire survey, which in this book is called the main survey.

This survey involves 3,615 persons from eight non-Western countries: Ex-Yugoslavia, Iran, Lebanon, Pakistan, Poland, Somalia, Turkey and Vietnam[9]. Of the respondents, 215 state that they are self-employed and 17 that they are assisting spouses.

The answers from the 232 self-employed persons and assisting spouses show that their businesses are often kiosks, greengrocers and restaurants. This agrees completely with the register data, where precisely sale and repair businesses and hotels and restaurants are the dominant sectors.

The main survey also asked how many employees the self-employed had. As can be seen from table 3.7, about 24% had no employees, 48% had 1-2, 16% 3-4, 9% 5-9, and only 3% had 10 or more. Thus, most businesses were quite small, which is only to be expected given the type of business concerned.

On average, the self-employed have had their businesses for seven years. As expected, there is a tendency for businesses with the most employees to have existed the longest.

On average, 31% of employees are family members, of whom 69% are paid and 31% unpaid.

The self-employed in the main survey were also asked why they became self-employed. It was possible to give several reasons for this, the most important being that it gave more independence than being a wage earner (stated by 44%

[9] See chapter 5 for a more detailed description of the data basis.

Table 3.7. Number of employees for self-employed persons in the main survey in 1998[1)]

	%	Average number of years the business has existed
Not stated	1	-
0 employees	24	6
1-2 employees	48	7
3-4 employees	16	9
5-9 employees	9	10
10 or more employees	3	19
%, total	100	7
Number, total	232	
Proportion of employees who are family members		31%
Proportion of family members who are paid wages		69%

Notes: [1)] Weighted according to the eight countries' proportion of the general population.

of respondents), cf. table 3.8. This answer agrees well with a study carried out by the National Board of Health and Welfare in Sweden, where a similar proportion mention this as a reason for becoming self-employed. Being better off was mentioned by 36% of respondents in the main survey, against 18% in the Swedish study. 29% of immigrants in Sweden consider being self-employed as the only possibility for earning a living, 17% giving this as a reason in Denmark. The proportion who were unable to get work in their own line is also lower among immigrants in Denmark.

It should be noted, however, that especially the last reason is to a large extent determined by immigrants' background, since it requires that they have specific job qualifications.

Table 3.8. Why did you choose to become self-employed? %.

	Denmark[1)]	Sweden[2)]
Unable to find work as wage earner in my line	18	26
Only possibility for earning a living	17	29
More independence than being a wage earner	44	44
Better off than wage earners	36	18
Other	13	10
Number of observations	232	177

Notes: [1)]Weighted according to the eight countries' proportion of the general population.
[2)]The Swedish study included immigrants from Chile, Iran, Poland and Turkey who were between 20 and 44 when they came to Sweden in the 1980s.
Sources: Sweden: National Board of Health and Welfare, 1999.
Denmark: Own calculations based on the main survey.

In general, however, slightly more immigrants in Denmark than in Sweden seem to have become self-employed because they think it is more attractive than being a wage earner, while slightly fewer say it was the only possibility.

Self-employed persons and assisting spouses in the main survey were also asked about their average working hours. The answers show that, on average, they work 50 hours a week, which is more or less the same as the hours worked by self-employed men in the general population (slightly more than 50 hours), but a lot higher than the average in Denmark for self-employed women (slightly more than 40 hours), cf. Eurostat (1998).[10]

3.5 Socioeconomic factors which can affect integration

It has previously been shown that, measured by participation rate and unemployment, immigrants from especially non-Western countries are relatively poorly integrated into the labour market. The reasons for this will be discussed in the rest of this and the following chapter. This section describes the influence of socioeconomic factors on integration, while chapter 4 looks at the influence of a number of individual factors, such as length of education and knowledge of Danish. One of these factors, length of stay, will be discussed in this section, however.

Figure 3.1 showed that the employment rate for non-Western immigrants fell in the period 1985-98. As previously mentioned, however, it is difficult to tell whether the fall was due to increasing numbers of new immigrants who, to begin with, had only limited attachment to the labour market, or whether it was because persons who came at different times have had varying degrees of success in finding employment (see also the discussion between Georg Borjas and Barry Chiswich on similar circumstances in the USA). The participation rate for non-Western men in figure 3.3 is therefore grouped by year of arrival in Denmark. That it is the participation rate and not the employment rate is because the latter is extremely cyclical. It is therefore necessary, when comparing the attachment of different immigrant cohorts to the labour market, to compare their employment with the general level of employment for Danes in the year concerned. This can be done in almost the same way by keeping unemployment out of the argument and focusing on participation in the labour force, i.e. the participation rate.[11]

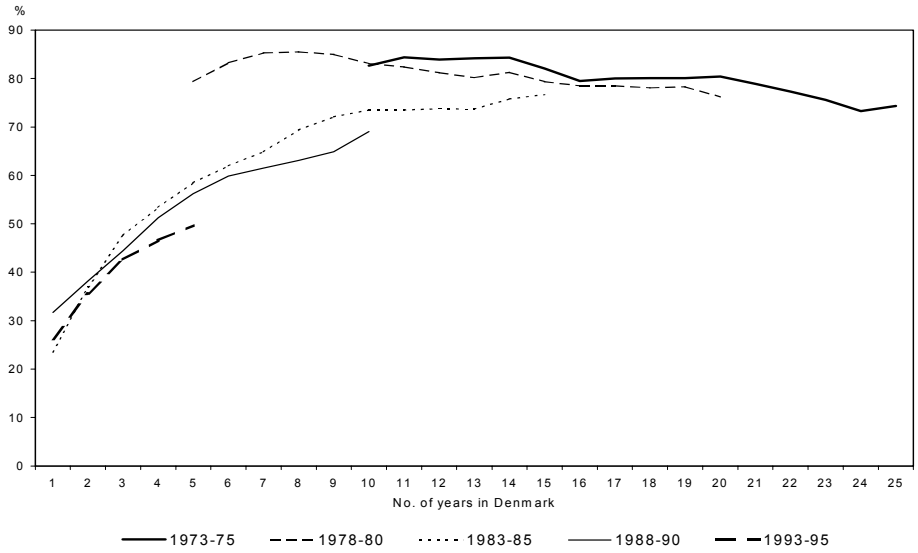
Due to the availability of register data, we can calculate participation in the labour market in relation to date of entry. Based on data from 1985-98, the participation rate of those who arrived between 1973-75 has been calculated for year 10-25 after arrival in Denmark. The calculations include all persons who were between 16-66 in the year in question. Similarly, the participation rate of those who arrived between 1978-80 has been calculated for year 5-20 after arrival, and

[10] It should be noted, however, that a more accurate comparison of working hours for the self-employed is hindered by the uncertainty of figures for working hours in Eurostat's surveys, which are thought to be somewhat overestimated.

[11] Calculations of the two measures, employment rate and participation rate, by length of stay confirm this.

so on. Persons who arrived before 1973 are not included, because date of entry was not systematically recorded prior to this year.[12]

Figure 3.3. Participation rate for 16-66-year-old men from non-Western countries, by date of entry and length of stay



Source: Own calculations, based on register data from Statistics Denmark.

It can be seen from figure 3.3 that non-Western men who arrived between 1973-75 have a high, albeit slightly falling, participation rate from the tenth to the twenty-fifth year. This fall can be due to age, as the average age in the 16-66 group is rising from 32 at the beginning of the period to 42 at the end.

Men who came to Denmark in the period 1978-80 also have a high participation rate – over 80% between 6 and 14 years after arrival in Denmark. However, if we take length of stay into account, the participation rate of this group is generally slightly lower than that of immigrants who arrived 3-7 years earlier, i.e. between 1973-75.

The participation rate among male non-Western immigrants who came to Denmark in the period 1983-85 differs markedly from previous arrivals. While non-Western men who came between 1978-80 have a high participation rate as early as the fifth year after arrival, those who came between 1983-85 are considerably longer in finding work. The participation rate for this group did not rise above 70% until 9 years after arrival. After 15 years, however, the participation rate is only slightly lower compared with those who arrived in 1978-80.

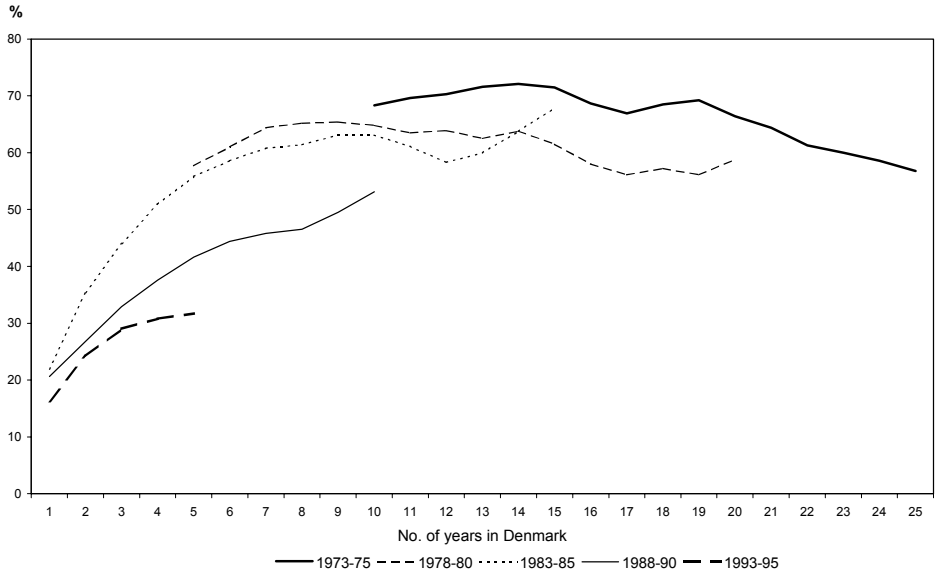
[12] Precise information about date of first entry is lacking for 14% of non-Western immigrants between the ages of 16-66 on 1/1-1998. Most of these immigrants arrived before 1973.

For the years it has been possible to obtain data for, a more or less similar pattern applies to men from non-Western countries who arrived between 1988-90. Even 10 years after arrival, the participation rate was still lower than for men who arrived in 1978-85.

For men who arrived in 1993-95, it has only been possible to calculate the participation rate for up to 5 years after arrival, i.e. up to 1998. Nonetheless, these calculations tend to confirm the tendency of previous cohorts, the participation rate for this group also being slightly lower than for non-Western men who arrived 3-7 years earlier. In fact, after 5 years, the participation rate for non-Western men who came to Denmark in 1993-95 is a full 30 percentage points lower than for those who arrived in 1988-90.

Figure 3.4 shows the corresponding pattern for non-Western women. While the participation rate is generally lower than for men, the tendency is the same – those who arrived in Denmark first have the highest participation rate, also when length of stay is taken into account.

Figure 3.4. Participation rate for 16-66-year-old women from non-Western countries, by date of entry and length of stay



Source: Own calculations, based on register data from Statistics Denmark.

The participation rate is highest for those non-Western women who arrived in 1973-75, even though it has fallen in general over the period. Those who arrived in 1978-80 have a slightly lower participation rate after 10 years.

Women who arrived in 1983-85 are quicker to reach nearly the same participation rate as women who arrived in 1978-80 than was the case for men. On the other hand, women's participation rate rises only very slowly once it has reached 60%, which it does after 7 years' residence. Between the thirteenth and fifteenth year after arrival, however, it rises considerably. This is partly because the participation rate is higher among women in this group in 1998, but is especially due to the way the participation rate is calculated.[13]

Women who arrived in 1988-90 show a similar, albeit less strong, tendency for the participation rate to rise in later years. However, this group also has a much lower participation rate than previous "cohorts", and only after 10 years' residence are half the women between 16 and 66 in the labour force. Even fewer of the non-Western women who arrived in 1993-95 are in the labour force after 5 years than women who came in 1988-90.

It can therefore be concluded that, based on figure 3.3 and 3.4, the participation rate for non-Western immigrants is higher the earlier they arrived in Denmark, and that it rises rapidly in the first years after arrival.

It should be mentioned, however, that a high participation rate is not the same as being in work, and if a higher proportion of the earliest arrivals are often unemployed, then the lower participation rate for the later arrivals is perhaps of less importance. As mentioned previously, however, figures show that this is not the case, and that unemployment is not generally higher among the earliest arrivals.

The conclusion remains the same, therefore: It takes time for newly arrived immigrants to adjust to the labour market, and this adjustment has apparently been slower in the 1980s and early 1990s than in the 1970s.

The above results are in full agreement with those from a study by Jan Ekberg and Björn Gustafsson (1995) on immigrants' relative earned income in Sweden, by length of stay and date of arrival. Their analysis shows that immigrants who came to Sweden in 1968-70 have a higher relative earned income after 10 years' residence than those who arrived in 1973-75, who in their turn have a higher relative income than those arriving in 1978-80, and so on.

As in Denmark, the integration of non-Western immigrants into the labour market in Sweden has worsened considerably during the last few decades compared with that of Swedes. According to the Swedish literature, this can be explained

[13] The participation rate is somewhat higher throughout the period for women who arrived in 1983 than for those who came in 1985. But since it is only the relatively few women who arrived in 1983 who have lived in Denmark for 15 years in 1998, it is also only these who are included in the calculation of the participation rate for the fifteenth year, whereas the calculation for the thirteenth year also includes women who arrived in 1984 and 1985.

by a number of socioeconomic factors, and these possibly play a similar role in Denmark.

Firstly, many of the non-skilled jobs which immigrants previously filled have disappeared, and a large share of the guest workers who came to Denmark before 1973 were namely recruited for non-skilled jobs in industry. This continued after the ban on further immigration in 1973, so a very large proportion of non-Western immigrants have found employment here. Thus, in 1985, over half of employed wage earners among immigrants and descendants were non-skilled workers, cf. table 3.2. As can be seen, however, this proportion fell among both Danes and immigrants and descendants between 1985-98. This makes it harder for new arrivals to find jobs, because the competition for available jobs is now much stiffer. For employed immigrants who have live in Denmark for many years, this problem only arises if they lose their present job and have to find a new.

Secondly, economic conditions at the time of arrival can be important. Those immigrants who arrived in Denmark in the 1960s and early 1970s came during an upswing in the economy, with low unemployment and a big demand for labour. Under such conditions, it was relatively easy to find work. Some were even promised work before they came. This situation can be compared with the employment possibilities of different youth cohorts: Entry into the labour market during a boom can have a beneficial effect on employment in the long term, while entry during a slump can mean that many in the cohort concerned never really get a foothold. The overall analysis in chapter 4 will examine whether economic conditions at the time of arrival have had a similar effect for immigrants in Denmark.

A third possible reason for immigrants' increasingly lower employment could be lack of incentives to work, cf. Broomé et al. (1996). The possibilities for measuring incentive problems now and over time are discussed in the following. The overall conclusion is that reduced incentives might be one of the reasons why new arrivals have been slower integrated into the labour marked during the last 2 to 3 decades.

3.5.1 Economic incentives for getting a job

In order to determine immigrants' and descendants' incentive to work, we have estimated how much more employed members of unemployment insurance funds among the main survey's respondents can earn from being in a full-time job (37 hours a week) in 1999 than from being on unemployment benefit. Only unemployment insurance fund members, all of whom are entitled to unemployment benefit (providing they fulfil the eligibility rules, of course), are included in the calculations. This is a repeat of earlier estimations carried out by Nina Smith for the Rockwool Foundation Research Unit based on a representative cross-section of the population in 1993/94 and 1996 (cf. Peder J. Pedersen and

Nina Smith, 1995; Nina Smith, 1998). The new calculations for 1999 take account of the changes in benefit rates and tax rules in the period.

The calculation of disposable income from a full-time job is based both on register data and on an estimated wage income from 37 hours' work based on respondents' own information about their hourly wages. To this is added - provided full-time work - net unearned income, child allowance and rent subsidy, while income tax, labour market contributions and the special 1% labour market supplementary pension scheme contribution (ATP) are deducted. Transport costs between home and work and half of childcare costs are also deducted.

The calculation of the disposable income for the full-time unemployed is based on the annual unemployment benefit payable to an unemployed person who is full-time insured. To this is added – provided full-time unemployment – net unearned income, child allowance and rent subsidy, while income tax, labour market contributions and the special 1% ATP contribution are deducted. The difference between the annual disposable income from full-time work and full-time unemployment is then divided by 12, giving a monthly amount which in the following is called the "gap".

Table 3.9. Proportion of employed members of an unemployment insurance fund who have a smaller disposable income from full-time employment than from full-time unemployment. 18-59-year-olds. %.

	Whole population, 1996			Immigrants and descendants, 1998/99		
	Men	Women	Total	Men	Women	Total
Childcare costs included						
- Negative "gap"	6	16	10	18	26	21
- "Gap" under DKK 500	12	28	20	34	41	36
Childcare costs excluded						
- Negative "gap"	5	7	6	14	21	17
- "Gap" under DKK 500	11	22	16	26	35	30
Total number of persons			1,919	488	310	798

Source. Own calculations for immigrants and descendants in 1998. The whole population in 1996: Nina Smith (1998).

Table 3.9 shows the results of these calculations for immigrants and descendants in the main survey in 1998/99 and for the cross-section of the whole population for which the latest figures are available, namely in 1996.

It can be seen from this that 21% of employed unemployment insurance fund members among immigrants and descendants had a smaller disposable income from being in full-time employment than from being on unemployment benefit.

Raising the limit to who earned less than DKK 500 more by being in work increases the proportion to 36%.

The corresponding figures for the whole population in 1996 were 10% and 20% respectively. For both immigrants and descendants and the rest of the population, the proportion is highest for women, who are also generally the lowest paid. Worst off are immigrant women, however, where 41% of those in full-time employment have less than DKK 500 more a month after tax, etc., if childcare costs are included.

It might be objected, however, that childcare costs should not be included, because in principle one cannot be available for work and look after the children at the same time. There can also be many good reasons for not changing things for children just because one of their parents becomes unemployed. On the other hand, childcare costs in the main survey for employed persons with children are actually higher than for the unemployed with children, which indicates that such costs should be included. If they are nevertheless excluded, the proportion of immigrants and descendants who lose money by being in employment falls from 21% to 17%, while the proportion who get less than DKK 500 more a month by working falls from 36% to 30%. However, this does not alter the overall impression that incentive problems are considerably worse for immigrants and descendants than for the population as a whole.

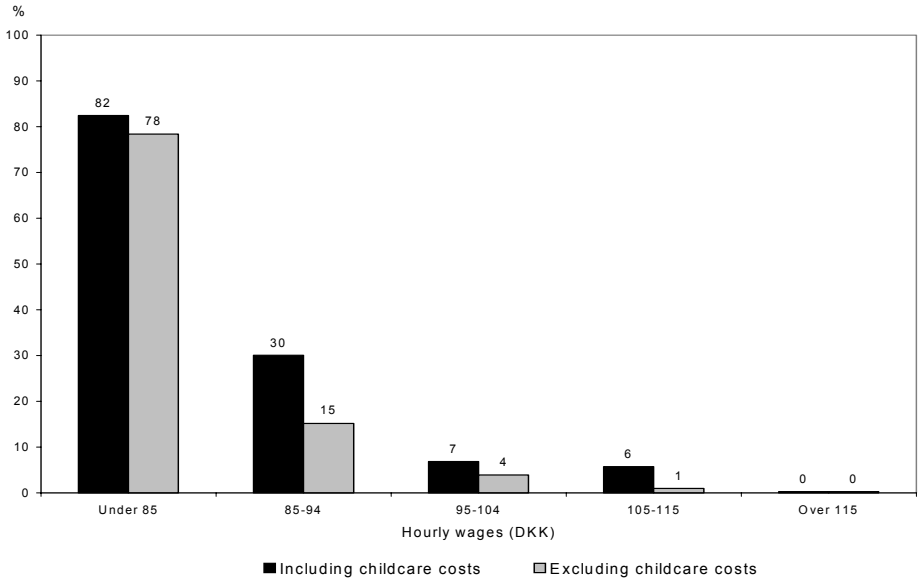
One of the reasons for this is that, as table 3.2 showed, immigrants and descendants more often have non-skilled jobs and thus a relatively low wage. Previous studies have documented that precisely the lowest paid have the biggest incentive problems, cf. Det økonomiske råd (1997), Økonomiministeriet (1997) and Nina Smith (1998).

A standard calculation based on the data in the main survey shows that, if immigrants and descendants had had the same hourly wage distribution as the whole population, then "only" about 12% of immigrants and descendants would have a negative gap, rather than 21%. Figure 3.5 shows that the lowest paid immigrants and descendants also have the biggest incentive problems.

Among employed unemployment insurance fund members with an hourly wage of less than DKK 85, who constitute 17% of the employed in the survey, 82% have a smaller disposable income from being in full-time employment (37-hour week) than from being on full unemployment benefit if childcare costs are included in the calculation, while 78% do if they are not. Of the 19% of employed unemployment insurance fund members in the main survey with hourly wages of DKK 85-94, between 15-30% also lose money by working, while the proportion falls to between 1-6% for persons with hourly wages of DKK 95-115. Only when hourly wages are above DKK 115 do incentive problems disappear al-

together. The latter group constitute 34% of employed unemployment insurance fund members.

Figure 3.5. Proportion of employed unemployment insurance fund members among immigrants and descendants in the main survey for whom working is not worthwhile (gap<DKK 0) by hourly wages. Including and excluding childcare costs.



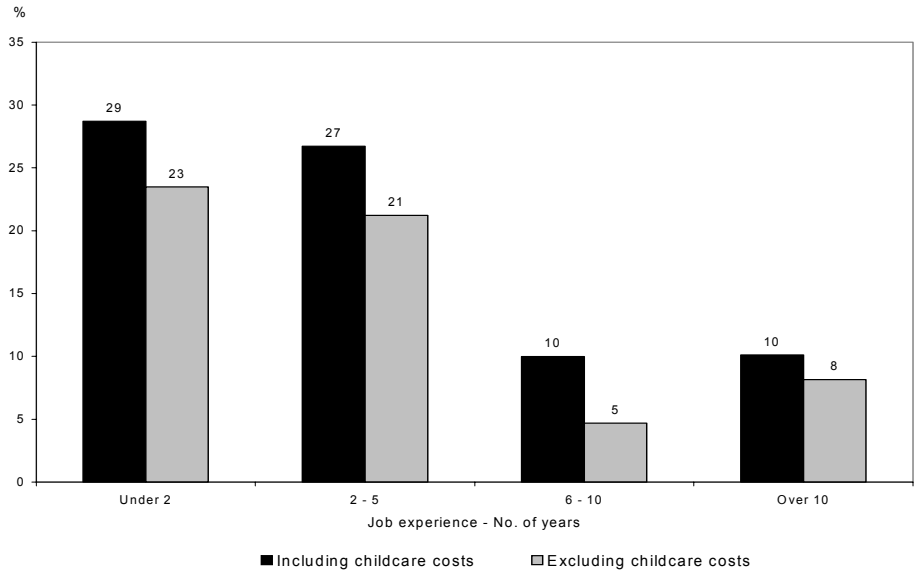
One of the reasons that so many persons work despite it apparently not being worthwhile might be that the above calculations only illustrate incentive problems in the short term, cf. Nina Smith (1998). It might not be possible to go on receiving unemployment benefit in the long run, for example, or wages might rise for the individual over time so that it suddenly becomes worthwhile to work. Finally, there can be a number of non-economic reasons for having a job, e.g. friendship at work or the joy of working – including the feeling of being needed.

In order to give an idea of the importance of incentive problems in the longer term, the proportion of employed unemployment insurance fund members among immigrants and descendants who lose money by having a job are distributed by number of years in employment in Denmark (figure 3.6). If it were only a question of a short "absorption phase", then persons with incentive problems would be expected to be concentrated in the group of persons with less than two years' job experience in Denmark.

The proportion of persons in this group who, in the short run, do not gain financially from working is 29% if childcare costs are included and 23% if they are not. The proportion falls by two points for persons with 2-5 years' job ex-

perience, but only falls significantly after five years' employment. If there is an "absorption phase", therefore, then it lasts up to five years. But even among employed persons with 6-10 years' job experience, 5-10% still lose money by working.

Figure 3.6. Proportion of employed unemployment insurance fund members among immigrants and descendants in the main survey for whom working is not worthwhile by job experience after 1979. Including and excluding childcare costs.



However, it might be countered that, although these persons are employed now, they can have been away from the Danish labour market for several years, and must therefore be "re-absorbed", so incentive problems are overestimated. Conversely, many of the persons who have not found it worthwhile working can have dropped out of employment, which means that in the longer term incentive problems are understated. A more thorough analysis of incentive problems in the long term thus requires longitudinal data, which do not exist at the moment.

The previous section raised the question of the possible trend in incentive problems over time. While this analysis has not provided an empirical answer to this, Nina Smith's (1998) documentation of a worsening of incentive problems in the Danish labour market as a whole between 1993/94 and 1996, and also that they are especially serious for the lower income groups, combined with the fact that this end of the income scale is precisely where a large proportion of non-Western immigrants end up, then it is not at all improbable that incentive problems for this group have actually increased in recent years. Only future research can provide a more definitive answer to this question.

3.6 Summary

The attachment to the labour market of immigrants from non-Western countries in the 16-66 age group has become considerably weaker in the period 1985-98. Thus, the employment rate for Danes in 1998 is twice as high as for non-Western immigrants, compared with 1.4 times higher in 1985. This should be seen in the light of a falling participation rate for non-Western immigrants and a relative increase in unemployment in the period. The employment rate for Western immigrants has been substantially higher than for non-Western immigrants, though still lower than for Danes. In general, employment for Western immigrants has paralleled that of Danes, and there has been no dramatic fall in the employment rate as for non-Western immigrants. With regard to descendants from both Western and non-Western countries, employment is higher than for the respective immigrant groups, though again still lower than for Danes.

Since attachment to the labour market seems to be a lot weaker for persons from non-Western countries than for persons from Western countries, the main focus of this chapter has been on the former group.

A distribution of non-Western immigrants and (the relatively few) adult descendants by sex produces significant differences in employment, attachment to the labour market being considerably weaker over time for women than for men. Thus, the employment rate was 2.2 times as high for Danish women than for non-Western women in 1998, against 1.5 times higher in 1985. For men, the gap increased from 1.3 in 1985 to 1.7 in 1998.

The fall in attachment to the labour market among non-Western immigrants is partly explained by the arrival of many new immigrants in the period, and that it takes time for these persons to fit into the labour market. However, figures also show that this apparently took longer in the 1980s and beginning of the 1990s than it did in the 1970s. After ten years' residence, immigrants who came to Denmark between 1988 and 1990 still had a lower employment rate than immigrants who arrived between 1978 and 1980 had after five years. So far, the employment rate seems to be even lower for immigrants who arrived between 1993 and 1995.

Among employed wage earners, over 40% of immigrants and descendants in 1996 were non-skilled workers, a considerably higher figure than for Danes. A lot fewer immigrants and descendants were white-collar workers – especially at upper levels – on the other hand, and there were also fewer skilled workers among male immigrants and descendants than among Danes.

The fact that immigrants and descendants often have non-skilled jobs also means that they generally have relatively low hourly wages. Thus, incentive problems are especially acute for immigrants and descendants, where 36% of employed

unemployment insurance fund members in the main survey have less than DKK 500 extra a month in disposable income from being in full-time employment (37-hour week) than from being on full unemployment benefit. The proportion falls to 30% if childcare costs are left out of the calculation. An earlier study showed that the corresponding figures for the population as a whole in 1996 were 20% and 16% respectively.

A higher proportion of immigrants and descendants than Danes are employed in manufacturing, though this fell significantly between 1985 and 1998. On the other hand, their numbers have been increasing in practically all other sectors. There has also been a shift from large to small workplaces in the same period. Thus, while over half of both men and women from non-Western countries were employed in workplaces with at least 100 employees in 1985, in 1998 this proportion had fallen by over 12 points. Today, more are employed in small and medium-sized enterprises. For example, the proportion of men in small businesses with 1-4 employees has nearly doubled – from 5.5% in 1985 to 10.8% in 1998.

Self-employed immigrants and descendants are primarily to be found in the sale and repair and hotel and restaurant trades. 5% of immigrants and descendants between 16 and 66 are self-employed, which is about the same as for Danes. Compared with the number of employed, however, the proportion is considerably higher for immigrants and descendants, simply because a smaller proportion of immigrants are employed.

Appendix table 3.1. Participation rate among 16-66-year-olds, 1985-98. %.

Year	Danes[1]			Non-Western immigrants and descendants[2]					Western immigrants and descendants[3]		
	M	W	Total	M	W	Imm.	Desc.	Total	Imm.	Desc.	Total
1985	86.0	74.1	80.0	77.7	61.2	70.2	77.1	70.3	70.4	76.1	70.8
1986	86.2	75.1	80.7	68.9	59.2	64.6	77.4	64.7	70.9	77.2	71.4
1987	86.6	75.9	81.3	63.9	57.2	60.8	77.8	61.1	71.2	77.0	71.6
1988	86.5	76.7	81.6	63.9	55.0	59.9	73.3	60.1	72.0	78.6	72.5
1989	86.2	77.0	81.6	65.2	54.2	60.3	68.5	60.5	71.5	77.8	72.0
1990	85.0	76.2	80.6	64.4	51.9	58.8	62.0	58.9	70.7	74.4	71.0
1991	84.6	76.2	80.4	63.2	49.8	57.3	55.0	57.2	69.0	76.5	69.7
1992	84.3	76.2	80.3	62.7	48.6	56.3	53.9	56.2	70.0	74.7	70.4
1993	84.1	76.3	80.2	62.5	47.4	55.6	53.9	55.5	68.5	76.0	69.2
1994	83.8	76.1	80.0	63.0	48.1	56.1	54.1	56.0	68.1	76.9	68.8
1995	84.0	75.2	79.6	62.6	46.9	55.0	57.2	55.2	67.8	77.4	68.6
1996	83.2	74.3	78.8	57.9	42.8	50.1	60.1	50.7	66.2	75.8	67.0
1997	82.9	74.4	78.7	57.3	41.7	49.2	60.4	49.8	65.8	75.6	66.6
1998	83.2	74.7	79.0	58.7	42.7	50.2	62.0	50.9	65.3	75.8	66.2

Notes: [1] Representative sample of 2% of the whole population, excluding immigrants and descendants.
[2] All non-Western immigrants and descendants.
[3] Representative sample of 25% of Western immigrants and descendants.
M=Men, W=Women, Imm.=Immigrants, Desc.=Descendants

Source: Own calculations based on the register-based labour market statistics (RAS) from Statistics Denmark.

Appendix table 3.2. Average number of unemployed among 16-66-year-olds as a percentage of the labour force, 1985-98. %.

Year	Danes[1]			Non-Western immigrants and descendants[2]					Western immigrants and descendants[3]		
	M	W	Total	M	W	Imm.	Desc.	Total	Imm.	Desc.	Total
1985	7.0	11.0	8.8	23.4	29.1	25.8	13.5	25.6	11.5	13.3	11.6
1986	5.6	9.9	7.6	21.0	28.4	24.1	12.3	23.9	10.3	10.4	10.3
1987	5.8	9.3	7.4	22.2	27.6	24.5	11.5	24.3	10.0	10.6	10.0
1988	6.7	10.0	8.2	25.0	29.9	27.2	10.3	26.9	11.2	11.3	11.2
1989	7.3	10.7	8.9	28.4	31.8	30.1	10.5	29.7	11.9	11.7	11.9
1990	7.4	10.8	9.0	29.8	32.4	31.3	11.3	30.8	12.0	12.3	12.0
1991	8.4	11.5	9.9	31.9	34.7	33.6	13.5	33.0	13.3	12.3	13.2
1992	9.3	12.4	10.8	34.8	36.6	36.2	16.2	35.5	14.5	14.7	14.5
1993	10.5	13.0	11.6	37.7	39.2	39.2	16.6	38.3	15.8	15.5	15.8
1994	10.2	12.7	11.4	39.6	40.7	41.0	19.2	40.0	16.2	13.9	16.0
1995	8.2	11.2	9.6	34.1	36.0	35.9	16.9	34.9	13.9	11.0	13.6
1996	7.2	9.6	8.3	29.3	32.4	31.7	14.6	30.6	11.9	10.3	11.7
1997	6.2	8.9	7.5	26.0	30.0	28.8	12.0	27.6	10.9	10.0	10.8
1998	4.8	7.3	6.0	21.4	25.5	24.1	10.3	23.1	8.4	8.3	8.4

Notes: [1] Representative sample of 2% of the whole population, excluding immigrants and descendants.
[2] All non-Western immigrants and descendants.
[3] Representative sample of 25% of Western immigrants and descendants.
M=men, W=Women, Imm.=Immigrants, Desc.=Descendants.

Source: Own calculations based on the register-based labour market statistics (RAS) and the unemployment statistics (CRAM) from Statistics Denmark.

4. Individual factors of importance for integration into the labour market

By Marie Louise Schultz-Nielsen

4.1 Introduction

The previous chapter dealt with immigrants' attachment to the labour market and discussed the importance of socioeconomic factors for integration into the labour market. To a large extent, however, attachment to the labour market is also determined by personal qualifications and other factors connected to the individual. Studies from other countries indicate that, for example, education, knowledge of the language, previous job experience, length of and basis for residence are all important for integration into the labour market (see, for example, the Swedish National Board of Health and Welfare, 1999; Svein Blom, 1997). This chapter looks at the connection between immigrants' occupation and each of the above-mentioned factors based, in the first instance, on cross-tabulations, which enable immigrants' employment situation to be analysed in more detail, but which, on the other hand, do not take into account the mutual dependence of the various explanatory factors. In a logistic regression at the end of the chapter, the response variable is whether a person has a job or not. This analysis includes explanatory factors from both this and other chapters, and analyses which factors overall have importance for integration into the labour market.

4.2 Personal qualifications

The register-based employment rates in chapter 3 were calculated using the same method as the (register-based) unemployment statistics. However, since the registers do not include many of the presumed relevant factors for immigrants' integration into the labour market, these have been asked about in the main survey. This information has been combined with respondents' own information about their employment situation at the time of the interview rather than register data. This approach avoids any time lag between the interview and register data, limited though this may be. Where the relevant information does exist in the registers – and is available for all immigrants – this has been used.

Both in the registers and in the main survey, the classification into employed or not employed is based on ILO (International Labour Organisation) guidelines for labour market statistics. The questions in the main survey are based on Statistics Denmark's survey of the labour force, which asks about the attachment to the labour market in a given week in winter 1998/99 and spring 1999. Those persons who are in paid employment, on paid leave, or are unemployed but in a job-creation scheme in the week concerned, are counted as employed – and all others as not employed (see also appendix figure 4.1).

The employed are then asked what their job is, and subsequently classified by occupation. In the following, this data is combined with a number of factors that can be of importance for immigrants' integration into the labour market.

4.2.1 Education

According to labour market research, education is one of the factors which is normally important for employment. For example, persons with particular qualifications can be in strong demand, and in many cases a tertiary education will increase a person's possibilities in a wider range of occupations. In addition, a compressed wage structure can result in a relatively higher demand for well-educated labour. At the same time, in a country such as Denmark, with relatively high wages, a high level of education can be a necessity, because the country is not competitive in low-technological products, but must instead compete on knowledge-based products.

At the beginning of this research project there was little information about immigrants' education in the registers, however, especially because they did not include information about education in the homeland. A number of questions about education were therefore included in the main survey, cf. chapter 2.

Table 4.1 shows the relation between respondents' employment and their education at the time of the interview.[14] The table is weighted according to the size of the respective immigrant groups in Denmark (cf. chapter 5).

The classification by employment status is based on respondents' answers in the main survey. The employed are classified in the same way as in Statistics Denmark's labour force surveys.

As also mentioned in chapter 3, the answers show that 6% of persons in the main survey are self-employed, 7% are managers and wage earners at upper and middle level, while 20% are wage earners at basic level. A further 12% are wage earners, but in even more routine jobs. The unemployed and course participants each constitute 12%, while pupils and students make up 7% of the respondents.[15] Old-age pensioners and early retirers make up 8% of respondents. Since only few immigrants are over 66, the great majority are therefore early retirers. Others outside employment constitute 15% of respondents, and include, for example, persons on cash benefit who are not available for work.

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[14] χ^2 tests carried out on this and subsequent tables where immigrants' and descendants' employment status is combined with personal factors show that differences in employment status between the various groups are statistically significant in all tables.

[15] In the questionnaire, pupils, students and course participants are grouped together. Register data have been used to distinguish between pupils and students on the one hand and course participants on the other. Persons who were under education in October 1998 are thus classified as pupils and students, while the others are described as course participants.

All in all, 45% of the respondents in the main survey are employed, which is slightly more than the 39% for all non-Western countries in 1998, as shown in table 3.1. The difference can be due to various reasons. Firstly, according to the methodological literature, there will usually always be minor differences between questionnaire surveys and register data. Secondly, the main survey "only" deals with immigrants and descendants from eight non-Western countries. Thirdly, the main survey solely includes persons who had lived in Denmark for two years on 1/7-1998, whereas the registers include all non-Western immigrants. Since employment increases with length of stay during the first few years, as noted in chapter 3, the respondents in the main survey can be expected to have a somewhat higher employment rate. Fourthly, the two measurements relate to different periods. In the main survey, respondents are asked about their job situation in a given week in the period November 1998 - May 1999. By comparison, the register data for 1998 for all persons from non-Western countries, like the unemployment statistics for 1998 compiled by Statistics Denmark, are based on the labour force per November 1997 and the unemployment figures in CRAM from 1998.

Table 4.1. Education and employment among 16-70-year-old immigrants and descendants in the main survey[1)], 1998/99. %

	No school education	Basic School	Upper-secondary school	Vocation-al training	Tertiary education	Total	Proportion
Self-employed	3	51	9	21	16	100	6
Managers and wage earners at upper and middle level	0	19	13	17	51	100	7
Wage earners at basic lavel	1	54	13	22	10	100	20
Other wage earners	5	65	8	18	4	100	12
Unemployed	6	73	4	9	8	100	12
Students and pupils	1[2)]	60	26	9	5	100	7
Course participants	3	61	11	17	9	100	12
Old-age pensioners and early retirers	11	64	3	17	5	100	8
Others outside employment	10	57	6	17	9	100	15
Proportion	5	57	10	17	11	100	100
Total No. of persons	188	1,918	378	552	439	3,475	3,475

Notes: 1) Weighted according to the eight countries' proportion of the general population.
2) Three immigrants, who were over 12 on arrival to Denmark, apparently answered "no" to having gone to school in the homeland, and according to the registers, they have not completed a school education in Denmark either, but are currently attending courses above basic school level. There has either been a mistake in the coding, the persons can have answered wrongly, or the necessary qualifications can be acquired by other means than general school education.

Sensitivity analyses of the two employment measures show that the 6 percentage point difference is mainly due to the time lag in compiling the two sets of data, partly because employment increases with length of stay in the first few years, and partly because economic conditions improved in the period. This means that a clear choice must be made between the two measures in the analyses.

However, there is no reason to expect stronger effects from choosing the one or the other measure.

The education referred to in table 4.1 is the overall education measure presented in chapter 2, i.e. including education completed in both Denmark and the homeland. The table shows that there are many more among the self-employed with occupational and tertiary education than among the respondents as a whole. Managers and wage earners at upper and middle level are even more well-educated, over half having a tertiary education. By comparison, the majority of wage earners at basic level only have a basic school education. 10% have a tertiary education, however, and seem, on the face of things, to be overqualified for their jobs. This could be due to discrimination, of course, but in fact it is due to a number of factors. Some are not good enough at Danish, while others say that their qualifications are irrelevant in the Danish labour market. There is also a group in further education, who just have a part-time job at basic level. Finally, some say they have no wish to use their education.

About 60% of both students, pupils and course participants have a basic school education. The proportion with an upper-secondary school education is higher among students than among course participants, more of whom, on the other hand, have some form of vocational training. 9% of course participants and 5% of the group of students and pupils have already completed a tertiary education.

There is a clear majority of old-age pensioners and early retirers with only a basic school education or no schooling at all. The proportion without any school education is also above average for other outside employment, namely 10%.

4.2.2 Knowledge of Danish

Studies from other countries, e.g. a Swedish study from the National Board of Health and Welfare (1999), have shown that being able to speak the host country's language well increases the chances of getting a job. But while this is obviously an advantage, there are also plenty of examples of persons who have found jobs in Denmark even without being able to speak Danish. This applies to some of the guest workers who came to Denmark before 1973, for example – and who were guaranteed jobs before they came. These persons came to Denmark precisely at a time of extreme labour shortages, and the language barrier was also reduced by the fact that they mostly came to manual jobs, especially non-skilled jobs in manufacturing firms.

Immigrants' and descendants' knowledge of Danish and the correlation between this and the individual's employment situation has not previously been measured. This has therefore been attempted in the main survey, both by asking the respondents themselves and the interviewers.

Table 4.2. Knowledge of Danish and employment among immigrants and descendants in the main survey[1)], 1998/99.%

	Interviewers' evaluation of respondents' knowledge of Danish:						Proportion of respondents who say themselves that their Danish is not good enough at work
	Excellent	Good	Medium	Poor	Very poor	Total	
Self-employed	27	35	28	7	3	100	5
Managers and wage earners at upper and middle level	55	36	7	1	0	100	3
Wage earners at basic level	34	25	31	8	2	100	6
Other wage earners	24	24	31	16	5	100	11
Unemployed	11	16	36	27	11	100	25
Students and pupils	59	30	10	1	1	100	3
Course participants	14	19	37	23	8	100	29
Old-age pensioners and early retirers	6	6	18	35	35	100	51
Others outside employment	8	15	29	31	17	100	47
Proportion	24	22	28	18	9	100	21
Total No. of persons	907	798	970	603	329	3,607	

Notes: 1) Weighted according to the eight countries' proportion of the general population.
The evaluation of Danish is explained in more detail in the text.

There is a fairly close agreement between the interviewers' and respondents' own assessment of their knowledge of Danish. There is a slightly wider dispersal among interviewers' assessments, however, with more persons being judged to be both poor or very poor and very good at Danish. This can be due to the fact that persons who speak Danish badly cannot hear it themselves, or are too embarrassed to admit it to others. Conversely, some persons who are extremely good at Danish might be too embarrassed to "boast" about it, or are so perfectionistic that their Danish can never be good enough.

In relation to attachment to the labour market, the interviewers' assessments have proved to be a somewhat more reliable indicator than respondents' own assessment. Thus, it is slightly more clear from the interviewers' assessments in the overall analysis in section 4.4 that those who speak Danish best also are those most likely to be in employment.

Table 4.2 shows the employment situation of persons in the main survey at the time of the interview and their knowledge of Danish – as assessed by the interviewers. As can be seen, there is a clear correlation between attachment to the labour market and knowledge of Danish.

Those who are best at Danish are managers and wage earners at upper and middle level, 55% of whom speak very good – and thus fluent – Danish, while 36% speak good Danish. By comparison, only 34% of wage earners at basic level speak fluent Danish and 25% good Danish. The self-employed are general-

ly poorer at Danish than the group of managers and wage earners at upper and middle level, only 27% speaking fluent Danish. On the other hand, they are better at Danish than the "other wage earners", 24% of whom are very good or good at Danish respectively. Only 26% of the unemployed speak very good or good Danish, and are thus generally rather poorer at Danish than the employed.

Almost 90% of students and pupils speak very good or good Danish. The corresponding figure for course participants is under 35%, while over 30% speak poor or very poor Danish. The big differences between the two groups is due to the fact that the former includes large numbers of descendants, who have lived in Denmark all their lives, while many course participants have not been in Denmark long and therefore attend Danish courses. The group of old-age pensioners and early retirers consists almost entirely of early retirers, and nearly 70% of these speak poor or very poor Danish. This group must therefore have considerable language problems, not just in relation to work, but also in connection with other activities, e.g. shopping, visits to the doctor, etc. Others outside employment are better at Danish than old-age pensioners and early retirers, but worse than the unemployed. This group also includes relatively new arrivals to Denmark, who have not yet entered the labour market because their educational and language qualifications need to be improved first.

It can be problematical (in the absence of a longitudinal study), of course, to determine whether a person is unemployed because of poor Danish or whether poor Danish is due to not having a job (and therefore lacking contact with Danes). At any rate, there must be a certain cumulative effect at work here, inasmuch as those who have jobs and work together with Danes also have a daily opportunity to practice their Danish. However, a satisfactory answer must await a longitudinal study, in which respondents' knowledge of Danish and employment situation can be followed over time. However, this does not rule out the possibility that knowledge of the language constitutes a stepping stone to employment. It is reasonable to assume that most jobs in Denmark today require at least a minimum of Danish. This is also why newly arrived refugees have been given Danish courses before they start looking for work. Table 4.2 showed, however, that managers and wage earners at upper and middle level speak much better Danish than the other groups in the labour market, 92% being good or even fluent at Danish. In their case, speaking good Danish is hardly due to the number of Danish colleagues they have. Rather, it is because their jobs require a considerably higher level of Danish than other job categories. Thus, acquiring a good knowledge of Danish must be seen as an important step in getting a foothold in the Danish labour market, and not just as an "added bonus" of getting a job.

The main survey also asked immigrants whether they thought their Danish was good enough for work. Their answers are also shown in table 4.2, and, as can be seen, 21% of immigrants do not consider their Danish to be good enough for

work at the moment. About half of old-age pensioners and early retirers, and a similar proportion of others outside employment, do not think their Danish is good enough. The corresponding figure for the unemployed is 25%.

Being poor at Danish does not mean a person is unable to perform a job, however. Rather, it means that, in some situations, the language barriers will be considerable. This can also be seen from the answers from the self-employed, just under 5% of whom do not think they speak good enough Danish. Similarly, 3% of the otherwise quite fluent managers and wage earners at upper and middle level also say that their Danish is not good enough for work. This can be because the language requirements, both oral and written, for this group are a lot more exacting than for other wage earners, but is perhaps also partly due to the aforementioned perfectionistic attitude to speaking Danish. Among employed wage earners at basic level, 6% say their Danish is not good enough, compared with 11% of other employed wage earners. The relatively high proportions here are possibly due to the fact that language barriers prevent the person from performing the job he/she is otherwise qualified to do.

4.2.3 Job experience from the homeland

Generally speaking, previous job experience is of great importance for job possibilities in Denmark, which is also one of the reasons why unemployment in all occupations is typically highest for the newly qualified. For persons who have been in the labour market for many years, job experience will often be just as important as formal qualifications when changing jobs. It can therefore be expected that the degree of job experience from the homeland will be crucial for immigrants' attachment to the labour market.

As for language and education, the registers do not include information about job experience from the homeland. The correlation between job experience from the homeland and employment in Denmark had therefore not previously been analysed. All respondents in the main survey who were 13 or older on arrival to Denmark were therefore asked about their job experience from the homeland. Their answers can be seen in table 4.3, which shows immigrants' employment in the homeland and in Denmark. The 128 persons who did not state their employment in the homeland have been left out of the table.

In order to compare employment in the homeland with that in Denmark, the figures for Denmark have been compiled somewhat differently than in the two previous tables. In table 4.3, the self-employed are no longer a separate group, but are classified by type of occupation.

Specifically, a large number of the self-employed (shopkeepers, etc.) are now classified under "managers", while the self-employed within the professions (solicitors, doctors, etc.) are grouped under "jobs at upper or middle level". Farmers, on the other hand, are placed under "jobs at basic level".

Table 4.3. Employment in the homeland and in Denmark among immigrants in the main survey who were 13 and over on arrival to Denmark[1)], 1998/99. %.

Employment in land of origin	Manage-ment	Jobs at upper and middle level	Jobs at basic level	Other jobs	Unem-ployed[2)]	Students and pupils	House-wives	Total
Employment in Denmark:								
Management	15	16	24	1	9	35	-	100
Jobs at upper and middle level	6	36	10	1	7	40	1	100
Jobs at basic level	6	14	31	4	6	35	3	100
Other jobs	3	11	28	7	8	30	14	100
Unemployed	4	9	14	13	9	32	21	100
Students and pupils	5	16	8	0	7	62	3	100
Course participants	4	18	24	3	6	34	12	100
Old-age pensioners and early retirers	3	13	46	9	3	7	19	100
Others outside employment	7	14	28	5	5	22	20	100
Proportion	5	15	26	5	6	31	12	100
Total No. of persons	158	420	685	114	168	849	292	2,686

Notes: 1) Weighted according to the eight countries' proportion of the general population.
2) Includes 27 unemployed persons and 141 outside employment, of whom 21 said they were too young to work.
The classification in the rows and columns are described in more detail in the text.

It should be noted that, regarding this comparison, employment in Denmark is at the time of the interview, while employment in the homeland does not refer to any specific period, but to the main form of employment prior to emigration. Thus, there is only a small proportion who answer "unemployed", because to the extent that respondents have had any employment at all prior to emigration, they can be expected to specify this. Added to this is the fact that, not surprisingly, the respondents are older at the time of the interview than when they emigrated. This can also be seen from the 31% of respondents who were attending school in the homeland. 26% had jobs at basic level – many in agriculture – while a somewhat smaller number had jobs at upper and middle level. Of the overall population, 12% were previously housewives, while the categories "managers", "other jobs" and "without work" each constituted 5-6% of immigrants over 12.

Among those who are managers (in own or others' businesses) in Denmark today, slightly more were pupils and students in the homeland than among immigrants in general. Their education can thus – to a greater extent than for other immigrants – have qualified them for a managerial job in Denmark. Unsurprisingly, the proportion of managers in Denmark is also highest among those who were managers in the homeland. On the other hand, there are no housewives among managers.

Persons who today have jobs at upper and middle level are first and foremost persons who had similar jobs in the homeland, together with pupils and students. The fact that the latter are generally overrepresented here can, of course, be due

to their educational background, but it can also be partly due to their better Danish. At least, as we saw above, a large proportion of persons with jobs at upper and middle level were also very good at Danish.

Just under a third of persons with jobs at basic level in Denmark had roughly similar jobs in the homeland, while a slightly larger proportion had been pupils and students. 14% of the respondents had jobs at a higher level in the homeland, which can be considered a waste of human capital as a result of the move to Denmark.

Those who today are in "other jobs", e.g. cleaning and other non-skilled jobs which do not require any special training, were to some extent housewives in the homeland, but first and foremost students or persons in jobs at basic level. Very few of the unemployed immigrants had jobs in the homeland. On the other hand, 21% of the unemployed were previously housewives, compared with 12% of all immigrants who were 13 or older on arrival.

Since the group of students and pupils in Denmark are generally young, most of them were naturally also among those attending school in the homeland. With regard to course participants, employment in the homeland does not differ significantly from the average for immigrants who were over 12 on arrival. Those on early retirement pension, on the other hand, largely had jobs at basic level in the homeland, which indicates that they are worn out after years of hard physical labour. Others outside employment were mainly housewives or in jobs at basic level in the homeland.

The first part of this chapter attempted to determine the importance of personal qualifications for employment by means of tables which showed the correlation between employment and education, knowledge of Danish and job experience from the homeland. It can be seen from this that, in general, the employed have a higher level of education than the unemployed and persons outside the labour force. It is highest among managers and wage earners at upper and middle level, over half of whom have a further education. This group is also best at Danish, 92% speaking good or very good Danish. In this respect too, therefore, the employed enjoy a considerable advantage over the unemployed and those outside the labour force. Pupils and students are an exception, however, almost 80% of whom speak good or even very good Danish. The group of old-age pensioners and early retirers are poorest at Danish, over 70% speaking poor or very poor Danish.

Almost half of old-age pensioners and early retirers had jobs at basic level in the homeland, and being worn out after often hard physical labour (which might well have continued in Denmark) can be a contributory cause of early retirement. Today, employment in Denmark to some extent overlaps with employ-

ment in the homeland, though many have jobs at a lower level in Denmark than they had at home.

4.3 Other factors connected to the individual

4.3.1 Basis for residence

The first guest workers were younger skilled and non-skilled men who came to work and who therefore had a very high employment rate. Since then, a high proportion have been refugees and reunified families, whose main purpose has not been to get a job. Employment among these persons can therefore be expected to be lower (cf. a similar argument about immigrants to Sweden in Jan Ekberg & Björn Gustafsson, 1995). Against this hypothesis, however, is the fact that immigrants' basis for residence can have changed over time. David Coleman (1999) has observed that, after the ban on further immigration in 1973, a number of those immigrants who earlier received residence permits in Western Europe on the basis of employment now seek residence as refugees or under family reunification rules.[16]

In principle, information about basis for residence exists for all immigrants in Denmark. In practice, however, the authorities have not yet made this information available on an individual level to the statistical registers. In the main survey, therefore, respondents have been asked directly about their formal basis for residence in Denmark.

Respondents were able to give both a primary and a secondary reason for coming to Denmark. Table 4.4 shows the answers based on the primary reason. As can be seen, 45% of immigrants in the main survey came for family reunification reasons, while 33% are spontaneous refugees, 11% received residence permits for employment reasons, 9% are quota refugees, while only 2% were granted residence under EU rules. These figures will differ according to country of origin, of course. For example, quota refugees are almost exclusively Vietnamese.

For the self-employed, the figures for basis for residence correspond more or less to the average, albeit somewhat more (15%) have been granted residence permits for employment reasons. There are fewer family reunifications and spontaneous refugees than average among managers and wage earners at upper and middle level, on the other hand. For wage earners at basic level, the distribution by basis for residence is roughly the same as the average, while among other wage earners there is a higher proportion of family reunifications and a lower proportion of spontaneous refugees. It thus appears that, to the ex-

[16] This can be the reason why many respondents say they came for employment, even though they first came to Denmark after 1973. This also implies, however, that the answers to the question on formal basis for residence are characterised by slightly more uncertainty than is generally the case in the main survey.

tent that spontaneous refugees are employed, they get slightly better jobs than those who came under family reunification rules.

Table 4.4. Basis for residence and employment among immigrants in the main survey[1)], 1998/99. %.

	Employment reasons	Family re-unification	EEC rules	Spon-taneous refugee	Quota refugee	Total
Self-employed	15	44	2	31	8	100
Managers and wage earners at upper and middle level	12	34	1	43	10	100
Wage earners at basic level	10	44	1	35	9	100
Other wage earners	13	56	1	23	7	100
Unemployed	12	67	3	15	4	100
Students and pupils	3	45	1	37	15	100
Course participants	3	39	3	45	10	100
Old-age pensioners and early retirers	33	23	3	33	8	100
Others outside employment	4	43	3	39	11	100
Proportion	11	45	2	33	9	100
Total No. of persons	282	1,415	57	1,139	371	3,264

Notes: 1) Weighted according to the eight countries' proportion of the general population.
The various categories of basis for residence are explained in the text.

Among the unemployed, 67% came to be reunited with their family, while only 15% and 4% are spontaneous refugees and quota refugees respectively. There is, on the other hand, a preponderance of quota refugees among pupils and students, and of spontaneous refugees among course participants. This is partly because refugees are generally better educated, and use their time in Denmark to study – e.g. to supplement their qualifications from the homeland so that they are relevant in Denmark. Another reason is that, through the Danish Refugee Council and the municipalities, refugees have been systematically offered courses in Danish, which has only been the case for immigrants since January 1st 1999.

One third of old-age pensioners and early retirers have received residence permits for employment reasons. This seems likely given that this group includes guest workers who are past their youth and who have probably had hard manual work for many years. Immigrants who came for family reunification reasons constitute only 23% of old-age pensioners and early retirers, on the other hand, compared with 45% for all immigrants, possibly reflecting the fact that they are younger than the average. The proportion of refugees among pensioners corresponds to the average for all immigrants. Among others outside employment, the proportion who came for reasons of employment is a lot lower than the average, while it is a bit higher for those who came as spontaneous refugees.

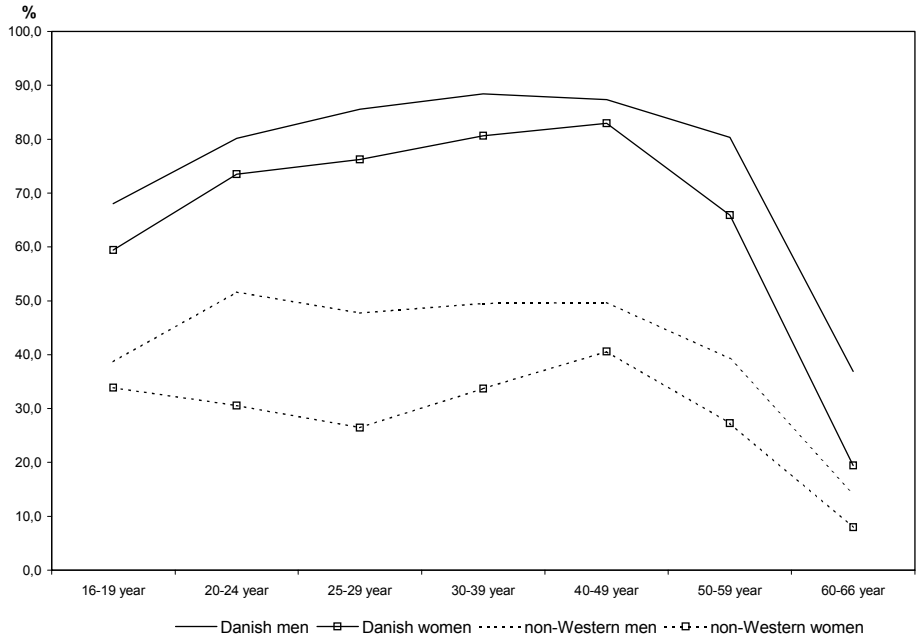
All in all, there is no clear correlation between immigrants' employment today and their basis for residence. While it is true that there are somewhat more employed immigrants among persons who came for employment reasons – especially among the self-employed – it is more the type of employment that varies. Spontaneous and quota refugees are to a greater extent managers and

wage earners at upper and middle level, while those coming to be reunited with their family largely have non-skilled jobs.

4.3.2 Age

Age must be expected to have a significant effect on integration into the labour market for two reasons. The first is that, for both immigrants and descendants and the population in general, it is often more difficult to get a job with age. Secondly, age on arrival to Denmark can be crucial for immigrants' ability to adjust, and with it the extent to which they become assimilated into Danish society. Figure 4.1 shows the age-determined employment rates in 1998 for men and women, for Danes and immigrants and descendants respectively.

Figure 4.1. Employment rate in 1998 by age.



Source: Own calculations based on register data from Statistics Denmark.

In chapter 3, it was observed that the employment rate for non-Western immigrants in particular was relatively lower than that for the population in general. This can also be seen from figure 4.1, where the employment rate curves for non-Western men and women are considerably below the level for Danes, though they resemble them on one point, namely that the employment rate for men is higher than for women.

Surprisingly, the employment rate for 25-29-year-old non-Western men is lower than that for 20-24-year-old men. This is because the first large cohorts of

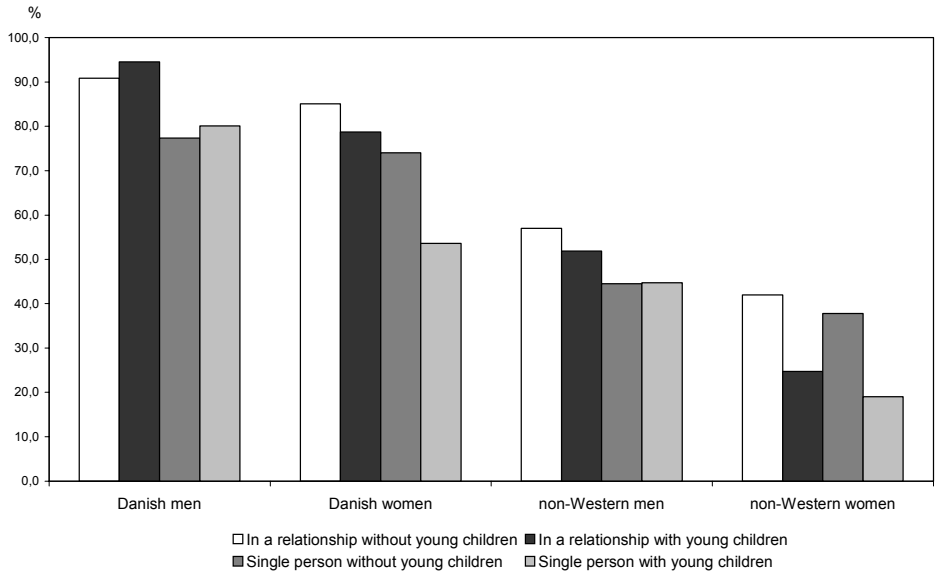
descendants from non-Western countries have now reached the age of 20-24, and, as was mentioned in chapter 3, descendants have a much better attachment to the labour market than immigrants. Therefore the employment rate is higher for 20-24-year-old men, 20% of whom are descendants, compared with only 3% of the 25-29-year-olds.

The pattern in most Western European countries is that women of child-bearing age have a lower participation rate than 40-49-year-old women. Female immigrants and descendants from non-Western countries in Denmark also have a low participation rate, especially the young under 30. Since they also have a high unemployment, their employment rate will be considerably lower than for Danish women (see figure 4.1), whose attachment to the labour market is also relatively strong for the younger age groups. Another reason for the lower employment rate among female immigrants and descendants is that they have more children than Danish women, cf. chapter 2, and respondents' answers in the main survey show that they also look after their children themselves to a somewhat greater extent.

4.3.3 Gender and children

To continue the thread from the previous section, we will now examine the correlation between the presence of children and paid employment for men and women respectively. Obviously, a presumed more tradition pattern of sexual roles among some immigrant groups can be expected to influence women's supply of labour and unemployment.

Figure 4.2. Employment rate for 20-39-year-olds in 1998 by type of family



Source: Own calculations based on register data from Statistics Denmark.

Figure 4.2 shows a register-based analysis of how married life and children affect men's and women's attachment to the labour market.

The figure shows the employment rate for both Danish men and women and non-Western men and women who are in a relationship and have children under 7. The term *relationship* rather than *married* has been used for purposes of comparison between immigrants and Danes. Most immigrants in a relationship are namely also married, but this is not true for Danes, many of whom cohabit. Initial calculations from the logistic regression in appendix table 4.1 show that the most important thing as regards attachment to the labour market is not the number of children or whether they are older, but whether they are infants. Figure 4.2 thus distinguishes between persons who have children under 7 and childless persons in this age group.

As can be seen from the figure, 20-39-year-old Danish men in a relationship have a higher employment rate than single men, and Danish men with children under 7 have a slightly higher employment rate. Previous studies have shown that unemployment among men falls when they become fathers, while unemployment for women temporarily increases, cf. Olaf Ingerslev et al. (1992).

As has been mentioned above, Danish women have a slightly lower employment rate than men, but here too it is highest for persons in a relationship. Unlike for Danish men, however, single Danish women with children under 7 have a lower employment rate. The employment rate for immigrants and descendants from non-Western countries is highest for men in a relationship without children under 7, followed by persons in a relationship with children under 7, and a slightly lower employment rate for single men. The decisive factor for immigrant women is whether they have small children or not, while it seems to be less important whether they are in a relationship or are single.

As can be seen from figure 4.2, therefore, the presence of small children has a stronger negative influence on attachment to the labour market for women from non-Western countries than for Danish women, while this does not have any significant effect on the employment rate for men.

4.3.4 Networks

In general, a network is extremely important when looking for a job. This can be seen from table 4.5, where the employed are asked how they got their present job.

Of wage earners who were asked in the 1996 survey, 19% said that they had got their present job through friends, relatives or the union. By comparison, "only" 8% found their job via the job centre. Friends and family also function as job agents among immigrants and descendants, 23% of whom got their present job

in this way, cf. table 4.5. Here, the union's role was more limited, however, only 2% getting their job through the union.

Slightly more immigrants seem to get jobs through friends, family and the union than in the population as a whole. However, there are especially more immigrants who got their job by directly approaching the employer, while fewer got a job by answering a job advertisement.

Table 4.5. How did you get your present job? 1996 and 1998/99.%

	Whole population[1] 1996	Immigrants/descendants[2] 1998/99
Via the job centre	8	6
Via the unemployment insurance fund	0	1
Via the municipality	2	8
Approached my employer directly	25	32
Through friends, relatives, etc. }	19	23
Through the union }		2
Answered a job advert in the paper, TV, periodical, etc.	27	18
Approached by my employer	12	6
Other	6	5
Total, %	100	100
Total number	671	1,385

Notes: 1) This question only put to wage earners who have found work within the last year.
2) Weighted according to the eight countries' proportion of the general population. The question is the same as the table heading.

Source: 1996: Figures based on a special run using questionnaire survey data, cf. Nina Smith (1998). 1998/99: Own calculations based on the main survey.

Part of the explanation for this is probably that the method used depends on the type of job applied for. Many non-skilled jobs are applied for by directly approaching the employer, or through friends and relatives arranging contact to the employer. White-collar jobs at upper level, on the other hand, are most often applied for in writing. Since there are more non-skilled and fewer white-collar workers at upper level among immigrants than in the general population (see table 3.2), it is therefore only natural to see this reflected in the pattern of job-seeking.

The network plays a crucial role for many seeking jobs, however, and in the following we will be taking a closer look at immigrants' Danish networks, measured by their contact with Danes.

Table 4.6 shows the correlation between the employment situation for persons in the main survey and their contact with Danes. As can be seen, 55% of immigrants regularly associate with Danes, while 19% only talk to Danes now and

then, with a similar number only on nodding terms. 8% of immigrants, on the other hand, have no contact with Danes at all.[17]

Table 4.6. Immigrants and descendants' contact with Danes, figures from the main survey, weighted.[1)] %.

	No contact	On nodding terms	Talk together now and then	Mix with/-drink coffee together	Total
Self-employed	5	11	20	64	100
Managers and wage earners at upper and middle level	1	4	14	81	100
Wage earners at basic level	3	12	17	67	100
Other wage earners	6	16	23	55	100
Unemployed	10	34	19	37	100
Students and pupils	1	6	19	74	100
Course participants	10	20	22	48	100
Old-age pensioners and early retirers	13	32	19	37	100
Others outside employment	16	23	21	41	100
Proportion	8	19	19	55	100
Total No. of persons	868	780	999	641	3,612

Notes: 1) Weighted according to the eight countries' proportion of the general population.
The question design is shown in footnote 17.

With regard to contact to the labour market, it is obviously not enough just to be on nodding terms. If Danes and immigrants associate regularly, or talk to each other now and then, the job situation is bound to be discussed eventually.

Among the self-employed, 64% associate with Danes. While this is far higher than the average for all immigrants, it is not extreme given the fact that many of the self-employed are shopkeepers who conceivably have a lot of Danish customers.

A high proportion of managers and wage earners at upper and middle level also associate with Danes, namely over 80%, while the figure for wage earners at basic level is a bit lower, at 67%. The figure for other wage earners is 55%, the same as the average for all immigrants.

Here, one should avoid jumping to the conclusion that those who have a job owe it to their network, because in many workplaces it is just not possible to work without "talking to Danes" or "drinking coffee together", in which case the causal relation would be the opposite. Nevertheless, contact with Danes must be

[17] Specifically, they were asked: "Do you ever talk to Danes, drink coffee together or visit each other?" Danes have previously been asked the same question, albeit in a slightly different version, cf. Eszter Körmendi (1986).

important, including in an employment context, since persons who have no Danish network are also cut off from an important source of information about jobs which could lead to employment.

Unfortunately, this seems to be the case for many of the unemployed, only 37% of whom associate with Danes. Lack of contact with Danes is less of a problem if contacts with other immigrants are good – and if it is also possible to get a job through these – but this does not appear to be the case precisely for the unemployed. Other persons outside the labour market have almost as little contact with Danes as the unemployed, with the typical exception of pupils, students and course participants, who meet a lot of Danes in the course of their education.

The previous sections have shown that refugees get well-paid jobs to a greater extent than immigrants who came to Denmark for family reunification reasons, but that there does not seem to be any connection between basis for residence and employment per se. There is, on the other hand, a quite clear correlation between being employed and associating with Danes.

As with Danes, age seems to play a decisive role for employment, both the youngest and oldest immigrants having a lower employment rate than the middle-aged. Unlike Danish women, however, the employment rate for female immigrants and descendants of child-bearing age from non-Western countries is considerably lower than for the other age groups. A breakdown by family type also shows that having children under 7 has a greater negative effect on employment for women from non-Western countries.

4.3.5 To what extent are the unemployed available for work?

In this chapter, many of the factors which have been put forward as an explanation for immigrants' and descendants' employment situation have been demand-determined. For example, do immigrants and descendants have the language and educational qualifications employers require?

In this context, however, the unemployed – both Danes and immigrants and descendants – need to have a certain flexibility in their job preferences, and to actively seek work so that employers are made aware of their existence.

Unemployed immigrants and descendants in the main survey have therefore been asked various questions about job-seeking and about their expectations of a future job. These questions were previously used in earlier surveys of the general population carried out, among others, by Peder J. Pedersen and Nina Smith for the Rockwool Foundation Research Unit for the years 1993/94 and 1996, cf. Peder J. Pedersen & Nina Smith (1995) and Nina Smith (1998).

Among other things, the unemployed were asked how much transport time they would be willing to accept between home and work. A comparison of the

answers showed that, in general, unemployed immigrants and descendants would not accept as long transport times as Danes.

Thus, of the 378 unemployed immigrants and descendants, 48% would only accept up to half an hour's transport time. The corresponding figures for the whole population in 1993/94 and 1996 were 22% and 24% respectively, cf. Nina Smith (1998).

On the other hand, unemployed immigrants and descendants in the main survey were about as willing as Danes to move in order to get a new permanent job, namely 24% of immigrants and descendants against 22% of the unemployed in the population as a whole in 1996.

The main survey also included a number of previously asked questions about the availability of the unemployed for work. The ILO definition of an unemployed person is namely someone who is out of a job, has recently been actively seeking employment, and who can quickly start a new job. The European statistical office, Eurostat, has operationalised these criteria as job-seeking within the last four weeks and starting a new job within two weeks. The requirement of active job-seeking and starting within two weeks are dropped if the person has already got a new job, or has been promised reinstatement, however.

Table 4.7 below shows the proportion of the unemployed who fulfil ILO's availability criteria.

Based on the answers in the main survey from the 239 persons who describe themselves as unemployed and who receive unemployment benefit or cash benefit, and who are neither in a job training or job-creation scheme, 51% fulfil ILO's criteria for being unemployed, compared with 65% and 67% in 1993/94 and 1996 respectively for the general population.

The difference is especially due to the fact that immigrants can start a new job within two weeks to a lesser extent than Danes, whereas job-seeking activity is roughly the same. The latter was also previously found in a Swedish study by Håkon Regnér and Eskil Wadensjö (1999).

As can be seen from the table, the distribution by sex gives relatively few observations in some of the table's cells in 1996 and 1998/99, so any conclusions about the differences based on minor deviations should therefore be made with caution. Given this reservation, the distribution by sex shows that women are less available for work than men.

Thus, 72% of men in the whole population were available for work in 1993/94 and 75% in 1996, compared with only 60% of immigrants and descendants in 1998/99. For women, 60% in the whole population were available for work in

both 1993/94 and 1996 according to the ILO criteria, against only 40% of female immigrants and descendants.

Table 4.7. Proportion of unemployed[1] who meet ILO's availability criteria, 1993/94, 1996 and 1998/99

	Whole population								Immigrants and descendants[2]
	1993/94			1996			1998/99		
	M	W	Total	M	W	Total	M	W	Total
Persons, total	259	341	600	112	144	256	136	103	239
Proportion, total	100	100	100	100	100	100	100	100	100
Of whom: Do not want a job[3] (-)	5.4	10.0	8.0	9.8	11.8	10.9	11.2	13.1	12.1
	94.6	90.0	92.0	90.2	88.2	89.1	88.8	86.9	87.9
Not looked for a job in last 4 weeks (-)	34.4	32.8	33.5	31.3	29.9	30.5	20.3	31.6	25.5
	60.2	57.2	58.5	58.9	58.3	58.6	68.5	55.2	62.4
Not looked for a job, but laid off or arranged new job (+)	12.3	3.8	7.5	16.1	7.7	11.4	5.9	4.5	5.3
	72.6	61.0	66.0	75.0	66.0	69.9	74.4	59.7	67.7
Have booked for a job, but cannot start for at least 2 weeks (-)	0.4	1.2	0.8	-	5.6	3.1	14.1	19.9	16.8
ILO definition of unemployed	72.2	59.8	65.2	75.0	60.4	66.8	60.3	39.8	50.9
Not looked for a job, but can start within next 2 weeks (+)	20.5	24.6	22.8	14.3	19.4	17.2	11.4	11.8	11.6
Broad ILO definiion[4]	92.7	84.5	88.0	89.3	79.9	84.0	71.7	51.7	62.5

Notes: 1) The table includes solely persons who receive unemployment benefit or cash benefit for the unemployed and who are not in a training or job-creation scheme, cf. also text.
2) Weighted according to the eight countries' proportion of the general population.
3) Excluding persons temporarily laid off and persons who have arranged a new job.
4) "Broad ILO definition" is not an official measure, but introduced in Peder J. Pedersen and Nina Smith (1995).
M=Men, W=Women.

Source: Own calculations, for 1993/94 based on Peder J. Pedersen and Nina Smith (1995), for 1996 based on Søren Pedersen and Peder J. Pedersen (1998), and for 1998/99 the main survey.

It might be expected that a larger number of immigrants and descendants had not looked for a job, but wanted one badly enough to be willing to start within two weeks, thereby satisfying the "broad ILO definition". One reason for this could be that discrimination in job interviews, etc., had made them give up actively looking for a job. However, "only" 12% of immigrants and descendants had not looked for a job in 1998/99 but could start soon, against 17% of the unemployed in the population as a whole in 1996.

According to ILO's criteria, therefore, of the unemployed on unemployment benefit and cash benefit who are not in a job-creation or training scheme, a smaller proportion of immigrants and descendants are available for work compared with the whole population.

The question now is why unemployed immigrants and descendants are less available for work than Danes. As noted in chapter 3, one reason could be the lack of financial incentives to work. Calculations have namely shown that incentive problems are considerably greater for immigrants and descendants than for the population as a whole. 21% of employed members of unemployment insurance funds among immigrants and descendants have a smaller disposable income from being in full-time employment than from being on unemployment benefit if childcare costs are included, and 17% if they are not.

It is not possible to calculate this for the unemployed – partly because they do not have an hourly wage which can be used to calculate their income from employment, and partly because information about possible future transport costs is lacking.

In the main survey, they were asked instead: "If you get a job, it will affect both your expenditure and your income. How do you expect it to affect your economy on the whole?" This question was put not only to the unemployed, but also to the 558 persons who potentially could join the labour force, most of whom receive cash benefit and who are (as yet) not registered as job-seekers at the job centre, but the group also includes a number of housewives and persons on paid leave who had previously been unemployed. 22% of the respondents said they would have less or about the same amount if they got a job.

The aforementioned study by the Rockwool Foundation Research Unit showed that, of the persons who were unemployed in 1993/94, a considerably higher proportion of those who said they would gain financially from having a job were in employment in 1996 compared with those who did not expect any great change, cf. Nina Smith (1998). This indicates that financial incentives play a role for participation in the labour market. This makes it doubly unfortunate that incentive problems appear to be greatest for the low-paid, many of whom are precisely immigrants and descendants.

Conversely, the analyses also show that many immigrants and descendants actually do work, despite not gaining much financially, and that 78% of the unemployed and others who potentially could enter the labour force do in fact think they would gain financially from working.

While there is therefore much to indicate that financial incentives are important for immigrants' and descendants' integration into the labour market, they do not seem to play anything like a dominant role.

Given this, it could be interesting to include incentive factors in the overall analysis in section 4.4. Unfortunately, this is not possible because, as mentioned above, actual earned income, transport costs, etc., are only known for the employed.

Similarly, it is not possible to fully determine the importance for employment of the fall in demand for unskilled labour mentioned in chapter 3. This is due to a structural change in the labour market over time, the explanation for which requires further investigation.

On the other hand, a number of other factors are included in the following which have not been described in chapter 3 and 4. Two of them are mentioned in chapter 2: Health and crime.

Since in this chapter we are only interested in the importance of health for immigrants' attachment to the labour market, a relatively simple indicator for health is used. All participants in the main survey are asked the following question: "Do you have any long illness, long-term after-effects from an injury, handicap, or other chronic condition?" If the respondents answer yes to this, and also say that their illness hampers them a lot in work/everyday activities, then the person is described as being in poor health, otherwise not.

The pattern of crime among immigrants and descendants and Danes is also shortly described in chapter 2. In relation to employment, the following analyses are based on whether the respondents have been given a prison sentence in Denmark within the last five years. The figures here are based on register data. If the answer is yes, the person concerned is described as having a "criminal past", otherwise not.

Two other factors, which could be of importance for the integration into the labour market, are included in the analysis: Information about society via Danish newspapers and religion.

Apart from directly associating with Danes (cf. the previous section on networks), immigrants' and descendants' contact with Danish society could also be measured by how informed they are about society via Danish newspapers. Thus, respondents in the main survey were asked "How often in the last 12 months have you read a Danish newspaper?" Here, too, the answers are converted to a dummy variable, where those who say "under 40 times" are characterised as not reading a Danish newspaper every week, while those who read 40 or more papers a year are said to read a Danish newspaper at least almost once a week.

The importance of respondents' religious background is measured by the following question: "Which faith have you been brought up in, if you have been brought up in one?", and "How often do you attend church service?" On this point, the interviewers were instructed to regard attending a synagogue or mosque as attending church. Immigrants and descendants who answered "Islam" to the first question were thus characterised as persons of Muslim background in the subsequent analyses, while all others are characterised as persons of non-Muslim background. The latter were described as "strongly" religious if they at-

tended church fairly regularly throughout the year. Since many religious Muslim women do not attend church, however, in the following the religious faith of persons of Muslim background is also measured by the extent to which they observe religious laws. Persons of Muslim background are therefore described as strongly religious if they never drink alcohol or attend church fairly regularly throughout the year. Otherwise they are described as being not very religious.

4.4 Overall analysis of the importance of individual factors for integration

Up to now, the effects of the various factors have been examined separately. The following is an overall analysis of the importance of the individual factors for integration. This is done by means of a logistic regression, where the probability of being in employment is estimated on the basis of the previously mentioned explanatory variables.

The results shown here are for immigrants only, but calculations have also been made for immigrants and descendants. These showed that there were no significant differences in the employment of immigrants and descendants when other factors are taken into account. That descendants have a higher employment rate than immigrants, as we saw in chapter 3, is because, among other things, descendants are much better at Danish. The following analysis solely concerns immigrants, and not descendants or Danes, because it then becomes possible to include many of the factors that do not apply to Danes and descendants at all, e.g. year of entry, employment in the homeland and basis for residence.

Appendix table 4.1 shows a logistic regression for the probability of being in employment among 16-66-year-old immigrants. A summary of the explanatory variables in the model, including those not directly important, is shown in table 4.8 below.

The dependent variable is whether a person is in work or not. The employed include all those who say they are in work, even if it is as little as one hour a week, which is the same method used in Statistics Denmark's manpower survey. Another regression, not shown here, shows that a requirement of at least 20 hours a week does not significantly change the results.

To start with, the model was estimated for men and women combined. However, since there were significant differences between the two sexes, the model was then estimated for men and women separately, cf. appendix table 4.1.

Unlike in previous tables for employment in the reference week, the self-employed and all types of wage earners are grouped under "employed", while the unemployed, students, course participants, early retirers and others without work are grouped under "non-employed". The analysis includes all the 16-66-year-olds in the main survey.

For comparison, yet another logistic regression has been carried out, this time based on persons in the labour force, thereby ensuring that it is the unemployed alone who represent the "non-employed".[18] Since there are relatively few unemployed, the analysis is for men and women combined. This means, of course, that factors which are only important for the employment of one sex, e.g. having small children, are estimated overall here for both sexes, but otherwise the results only differ on one point. Year of entry, which in the following will prove to be significant for the employment of all persons between 16 and 66, is not important if the starting point is persons in the labour force alone.

As can be seen from table 4.8 and appendix table 4.1, there are considerable differences between the estimated results for male and female immigrants.

Table 4.8. Factors of importance for immigrants' integration into the labour market

	Men	Women
Age	***	***
Children 0-6 years	No importance	***
Relationship with a Dane	No importance	No importance
Health	***	***
Education	No importance	***
Language	***	***
Year of entry	***	**
Economic conditions at time of arrival	No importance	No importance
Employment in country of origin	*	No importance
Contact with Danes	***	**
Country of origin	***	***
Basis for residence	No importance	No importance
Religion	**	*
Weekly reading of Danish newspapers	***	No importance
Crime	**	No importance

Notes: *** = Significant at the 1% level
** = Significant at the 5% level
* = Significant at the 10% level
The table summarises the results from appendix table 4.1.

Age seems to be of some importance for both sexes, the middle group having a higher level of employment than both the youngest and oldest group. Having children in the 0-6 age group, on the other hand, reduces women's likelihood of being employed appreciably, while this is not the case for men. Similar results have previously been found for Danish men and women – see, for example, Olaf Ingerslev et al. (1992).

Living with a Dane is unimportant, however – though it might be expected to play a role, since this form of integration would have an impact on the labour

[18] The conclusion at the start of this section that descendants have a higher employment rate than immigrants mainly because they are much better at Danish also proves to apply in the analysis of persons in the labour force.

market. However, given the fact that knowledge of Danish and contact with Danes in general are estimated separately in the regression, it is perhaps less surprising that the nationality of the spouse is unimportant, which also proved to be the case in a Swedish survey in which knowledge of Swedish was included, cf. the National Board of Social Welfare (1999). Moreover, in many of the couples where a foreign spouse moves to Denmark, the spouse who is on "home ground" – namely the Dane – might also be expected to be the main breadwinner.

Interviewees who say they have a chronic illness which handicaps them a lot in everyday life are characterised as being in poor health. Even though there are relatively few with poor health, health factors obviously play an important role in the employment possibilities of the individual immigrant. Thus, persons in good health are twice as likely to be in employment as persons in poor health, other things being equal.[19]

Education seems only to play a role for women, for whom it has a negative effect on employment if the woman has completed an upper-secondary education but not (yet) a course of further education. This is because many of the non-employed are students. If students are excluded from the regression analysis, the importance of education is reduced for women too.

It can seem surprising that education does not appear to play any important role. It should be remembered here, however, that the criterion is having a job – not what type of job. Furthermore, education is closely correlated with knowledge of Danish, the higher-educated generally being the best at Danish.

The central role of knowledge of Danish is indisputable, however. For both men and women, being good at Danish increases the probability of being in employment, even though the effect of speaking Danish badly seems to be greater for women than for men. This can be due to the existence among men in particular of a group with quite poor language and educational qualifications who nevertheless have jobs. This applies, for example, to many guest workers (see also earlier in the chapter).

As mentioned in chapter 3, immigrants enter the labour market gradually in the first few years after arrival in Denmark, with a tendency for persons who arrived in the 1970s to find work more quickly than has been the case since. This can be due to differences in economic conditions at the time of arrival, of course, unemployment being extremely low especially at the beginning of the 1970s. As can be seen from table 4.8, however, this was not the case, since economic conditions at the time of arrival (here, average unemployment one year after arrival)

[19] Calculated for both men and women with the following (typical) characteristics: 35 years old, no children under 7, not married to a Dane, reads Danish newspapers, has a primary school education, was a school pupil or student in the homeland (Turkey), speaks fairly good Danish, was reunited with family in Denmark in 1987.

are apparently not important for employment today.[20] On the other hand, length of stay in Denmark is important. Thus, at the time of the study, persons who arrived in Denmark between 1994 and 1996 are significantly less likely to be in work than persons who arrived before 1974. If we look solely at persons already in the labour force – which, however, very few are in the first few years, cf. chapter 3 – then employment is not significantly lower for those who arrived later, provided, that is, their qualifications (including knowledge of Danish) match those of the earlier arrivals.

Table 4.3 showed that, for example, persons who had "other work" in the homeland were not suddenly likely to be in "work at high and middle level in Denmark". If the other effects are included, and the issue turned into one of either being in work or not, then employment in the homeland is only important for men, however, whereas today immigrants are more likely to be in employment if they attended school in the homeland rather than being unemployed.

Contact with Danes seems to be more crucial. Thus, immigrants who have regular contact with Danes are more likely to have a job than others – though it is somewhat uncertain whether contact with Danes is decisive in getting work, or whether it is the job itself that creates contact.

Country of origin also plays a part. For example, given the other factors, male immigrants from Somalia are far less likely to be employed than men from Vietnam, Poland, Turkey and especially Pakistan, while far fewer female immigrants from Lebanon have jobs than women from Turkey, Pakistan and Vietnam.

Basis for residence does not seem to be important. If it did, it might reasonably be assumed that people who came for reasons of employment were more likely to be employed than others. This does not appear to be the case, however, either for men or women.

Allegiance to the culture of the homeland – measured by religious attachment – seems to be of some importance, on the other hand. For men, devout Muslims are less likely to be in employment than all others. For women, on the other hand, it is not so much being Muslim that counts. What matters more is the strength of attachment to their religion (and traditional values), irrespective of religious persuasion. This can be interpreted to mean that women who are more tradition-bound are also more expected to be housewives.

As mentioned previously, we have also tried to measure contact with Danish society by the extent to which immigrants read Danish newspapers. Men who

[20] The results here differ from the conclusion in Husted et al. (1999), whose analysis also includes hourly wage estimates, but based solely on register data. The results are therefore not directly comparable.

read Danish papers every week are significantly more likely to have a job than those who do not.

We have tried to measure whether a criminal past (defined as serving a prison sentence in Denmark within the last 5 years) has an influence on employment. Only a few respondents have received such sentences within the last 5 years, nearly all men. So this variable is not significant for women either. In this respect, immigrant women do not differ from Danish women, who by and large do not commit crime, cf. Jørgen Goul Andersen (1998). The variable is significant for men at the 5% level, on the other hand, and while being out of work can be one of the reasons for committing a crime, there can be little doubt that having a criminal past (e.g. not having a clean record) limits job possibilities.

All told, therefore, gender, age, health, knowledge of Danish, and country of origin play a significant part in immigrants' employment, but contact with Danes, year of entry and religious background are also important. In addition, having children under 7 plays an important role for women. For men, regular reading of Danish newspapers, a criminal past and employment in the homeland seem to be of greater importance for employment in Denmark.

Discrimination is not included as an explanatory variable in the above-mentioned regression analysis. While actual discrimination is difficult to measure, in the main survey we have attempted to measure experienced discrimination, e.g. by asking immigrants whether they have been rejected for a job because of discrimination.

This analysis is limited to that half of the 16-66-year-old immigrants who have looked for jobs within the last 5 years, of course. The results of this logistic regression analysis (not included here) show that persons who have felt discriminated against when job-seeking are less likely to be in employment than persons who say they have not been discriminated against. Experienced discrimination does not play as important a role in employment among job-seeking men as age, health, knowledge of Danish and country of origin, however. For women, the results are more ambiguous, because only a limited number of women have been looking for work within the last 5 years.

4.5 Summary

It was shown in chapter 3 that non-Western immigrants have a much weaker attachment to the labour market than Danes. In this chapter, we have tried to determine which personal qualifications and other individual factors have an influence on employment.

Whether immigrants are employed or not is analysed for all persons between 16-66. The group of non-employed includes all persons outside employment, and thus such disparate groups as students and early retirers.

Gender is of immense importance. Not only are far more non-Western men than women employed, but a distribution by gender shows that the importance of a number of factors also varies according to gender. For non-Western women, for example, attachment to the labour market is strongly influenced by whether they have children under 7, while it is not for non-Western men. Figure 4.2 also seems to suggest that the presence of children under 7 has a greater negative effect on the participation rate of immigrant women than of Danish women, but this can neither be confirmed nor rejected here, since Danes are not included in the analysis.

For non-Western men, on the other hand, being informed about Danish society (measured by the reading of Danish newspapers), employment in the homeland, and whether they have committed a crime seems to be important. That the latter has no importance for women is because women by and large do not commit crime.

Knowledge of Danish is very important for both men and women. Not just for having a job at all, but probably also for the type of job. Thus, over half of managers and wage earners at upper and middle level speak very good Danish, while only a quarter of "other wage earners" and 10% of the unemployed speak very good Danish.

The employment situation is also closely connected with the extent of contact with Danes. More than 60% of unemployed immigrants say that they have little or no contact with Danes. This means that they also lack a Danish network that could be useful to them in job-seeking and introducing them to Danish society.

The strength of attachment to the homeland's culture is also important. Strongly religious Muslim men are therefore less likely to have jobs than other non-Western men. For women, it is not so much religious persuasion as the strength of religious attachment (and traditional values) that has a negative influence on employment.

The year of immigration to Denmark plays a positive role, which the importance of length of stay in chapter 3 confirms. On the other hand, economic conditions at the time of arrival – which for some respondents was a long time ago – seems not to have any importance for employment today.

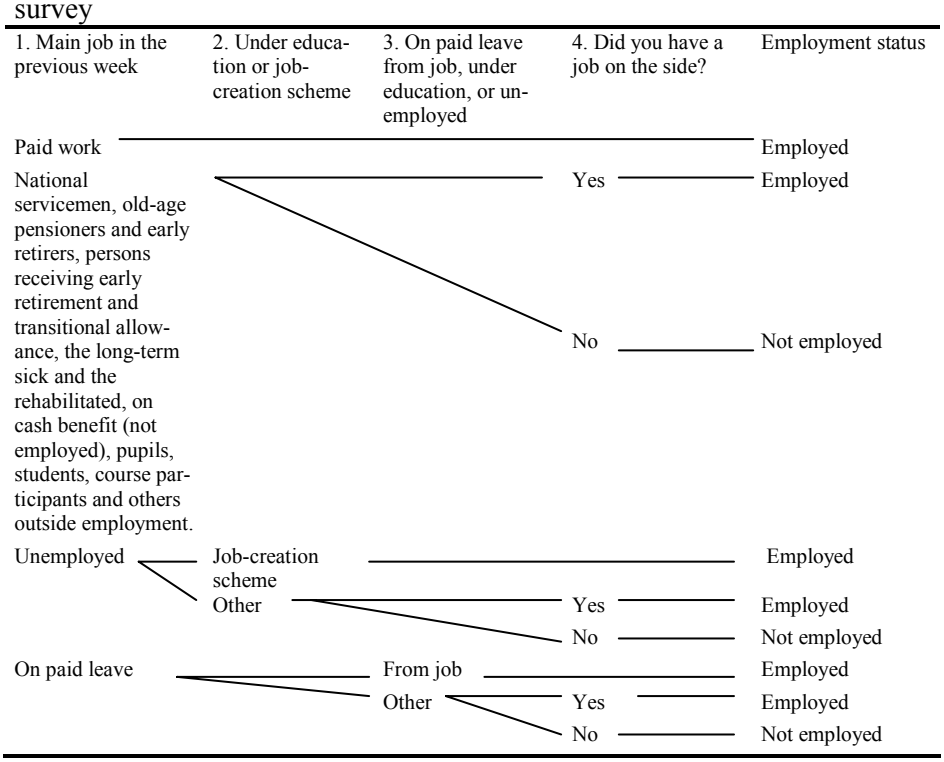
As chapter 3 also showed, there are big differences in the employment rate for persons from different countries. These differences persist, even though many of the effects can be explained by the factors mentioned above. Thus, men from

Somalia are less likely to be employed than men from Pakistan, ex-Yugoslavia, Poland and Vietnam, while Lebanese women are less likely to have jobs than Turkish, Pakistani and Vietnamese women, given their other characteristics.

For persons who have looked for a job within the past five years, it has been analysed whether there is any connection between the employment situation and discrimination. The results show that those who suspect, or are sure, that they have been discriminated against are less likely to be in employment than immigrants who have not experienced discrimination. However, compared with the other explanatory factors, discrimination for men – where a comparison has been possible – is not as decisive as age, health, knowledge of Danish and country of origin.

As regards the unemployed only, according to ILO's criteria, unemployed immigrants are available for work to a lesser degree than Danes. Comparable figures for the unemployed in the whole population in 1996 show that 75% of men and 60% of women were available for work. For immigrants in 1998, only 60% of men and 40% of women were available for work.

Appendix figure 4.1. Classification by employed and not employed in the main survey



Appendix table 4.1. Logistic regression of the probability of immigrants between 16-66 being employed at the time of the interview, 1998/99.

	Men		Women	
	Coefficient	Std.err.	Coefficient	Std.err.
Constant	-5.107***	1.037	-1.521	1.259
Age	0.304***	0.041	0.129***	0.043
Age^2	-0.004***	0.001	-0.002***	0.001
No children under 7 (0=No, 1=Yes)	0.181	0.139	0.592***	0.150
Not in relationship with a Dane	-0.291	0.259	-0.267	0.238
Poor health	-2.336***	0.309	-1.686***	0.349
Does not read Danish newspapers every week	-0.387***	0.138	-0.244	0.159
Education:				
No schooling	-0.218	0.416	-0.453	0.376
Basic school	-0.149	0.209	-0.446*	0.243
Upper-secondary schooling	-0.404	0.253	-0.957***	0.285
Vocational training	-0.045	0.227	-0.014	0.262
Further education	-		-	

continued on the next page

Employment in country of origin:				
Manager at top level	0.343	0.327	-0.328	0.509
Work at upper and middle level	-0.061	0.293	0.151	0.333
Work at basic level	0.251	0.252	0.075	0.316
Other work	-0.368	0.357	-0.102	0.491
Others without work	-0.267	0.320	0.311	0.386
Housewives	na.		0.191	0.317
Pupils, students	0.288	0.206	0.019	0.240
Under 12 on arrival	-		-	
Knowledge of Danish:				
Respondent speaks very poor Danish	-0.402	0.380	-1.263***	0.316
Respondent speaks poor Danish	-0.512***	0.197	-0.946***	0.212
Respondent speaks fair Danish	-		-	
Respondent speaks good Danish	0.544***	0.167	0.3242*	0.188
Respondent speaks very good Danish	0.656***	0.207	0.668***	0.224
Religion:				
Non-Muslim background, not very religious	0.694***	0.257	0.643**	0.295
Non-Muslim background, very religious	0.800**	0.355	0.418	0.350
Muslim background, not very religious	0.544**	0.221	0.672**	0.325
Muslim background, very religious	-		-	
Country of origin:				
Ex-Yugoslavia	0.568	0.350	-0.365	0.336
Iran	-0.411	0.315	-0.439	0.375
Lebanon	-0.509	0.370	-0.936**	0.449
Pakistan	1.038***	0.406	0.038	0.461
Poland	0.236	0.359	-0.301	0.303
Somalia	-0.726*	0.404	-0.497	0.428
Turkey	0.410	0.374	0.379	0.409
Vietnam	-		-	
Contact with Danes:				
Socialises with/talks to Danes (1=Yes, 0=No)	0.423***	0.156	0.431**	0.181
Year of entry:				
Before 1974	-		-	
1974-1984	-0.487	0.273	-0.309	0.497
1985-1989	-0.059	0.504	-0.450	0.544
1990-1993	-0.242	0.658	-0.895	0.698
1994-1996	-1.213**	0.551	-1.225**	0.583
Economic situation on arrival (average unemployment rate one year after arrival)	-0.035	0.062	0.021	0.067
Basis for residence:				
Employment reasons	0.089	0.281	0.057	0.337
Under EU rules	-0.302	0.444	-0.403	0.577
Family reunification	-0.073	0.191	-0.235	0.188
Quota refugees	0.004	0.212	-0.582*	0.282
Other reason	0.023	0.367	-0.415	0.325
Spontaneous refugees	-		-	
No crime (0-No, 1= Yes)	0.471**	0.228	-0.151	0.698
Log likelihood	-866,7		-734,1	
Number of employed	53%		36%	
Number of observations	1,642		1,482	

Note: See text for an explanation of the categories

5. Data description

By Niels-Kenneth Nielsen and Søren Pedersen

5.1 Introduction

This chapter describes data on which the book's analyses are based. The data consist partly of new results from questionnaire surveys carried out by Statistics Denmark for the Rockwool Foundation Research Unit and partly of register data, also supplied by Statistics Denmark based on administrative registers.

Section 5.2 presents an overview of the data, while the questionnaire surveys are described in section 5.3 and 5.4, which also include analyses of representativeness and non-response. Section 5.5 explains the weightings used in the questionnaire part of the survey, while section 5.6 deals with the general experiences and problems encountered by Statistics Denmark during the interviewing of the various immigrant groups. Section 5.7 takes a relatively short look at the representativeness of the register samples. Finally, the Law Model used in the analysis of Eskil Wadensjö is briefly described in section 5.8.

5.2 Overview of the data

In general, the data can be divided into two main parts, namely a questionnaire part and a register part, where the information from both parts is combined. The following describe the questionnaire data and register data respectively.

The main source of new information is a questionnaire survey – in the following called the main survey – involving 3,615 completed interviews with non-Western immigrants and descendants from eight nations. These eight nations were selected among the biggest groups of immigrants and descendants in Denmark, and include Ex-Yugoslavia, Iran, Lebanon, Pakistan, Poland, Somalia, Turkey and Vietnam, and account for 64% of all non-Western immigrants and descendants in Denmark. The total sample was 6,257 persons, giving a response rate of 57.8%, which is satisfactory compared with other Danish and foreign surveys (see below).

In order to compare analyses from the main survey with similar results for the Danish population as a whole, selected questions from the main survey were repeated in an omnibus survey, which 961 persons answered. The original sample for the latter was 1,499 persons selected from the general population (i.e. including immigrants and descendants), giving a response rate of 64.1%.

The register data used here is based on administrative registers in Statistics Denmark. The Danish population is divided into three groups: Non-Western immi-

grants and descendants, Western immigrants and descendants, and Danes[21]. The primary register data part consists of the whole population of non-Western immigrants and descendants who resided in Denmark on at least one of the dates 1/1-1984, 1/1-1985,...., 1/1-1998, 1/7-1998, and who on one of these dates were between 16 and 70 (both years included).

In addition, a sample was drawn of 25% of Western immigrants and descendants who resided in Denmark on at least one of the dates 1/1-1984, 1/1-1985,...., 1/1-1998, 1/7-1998, and who also on one of these dates were between 16 and 70. As for the non-Western immigrants and descendants, children of the selected persons who were under 16 on 1/7-1998 were also included. This gives a total of 45,615 persons.

In order to compare the results for Western and non-Western immigrants and descendants with similar results for the Danish population as a whole, a sample of 2% of the whole population was selected (i.e. including immigrants and descendants). The sample was selected in exactly the same way as the two previous samples, i.e. 2% of all those who resided in Denmark on at least one of the dates 1/1-1984, 1/1-1985,...., 1/1-1998, 1/7-1998, together with the children of the selected persons who were under 16 on 1/7-1998 – 93,673 persons. It should be mentioned here that register data are included for all persons selected for the omnibus survey (original sample), i.e. 1,499 persons. For Olaf Ingerslev's analyses of health data, data on 1/7-1998 have been supplemented with children of the above persons, i.e. children who were under 16 on 1/7-1998 – in all 137,415 persons. In all, the primary data thus consists of 209,499 persons.

Finally, the data are supplemented with information on so-called d-family members[22] of the persons in the above-mentioned samples who actually resided in Denmark on 1/7-1998 – 112,329 persons in all.

There is supplementary information from a wide variety of registers on all selected persons – if, that is, the person exists in the register concerned. The most important registers used and the type of variable they contain are shown below in figure 5.1.

Like the questionnaire surveys, the registers have their uncertainties and other problems, though these are not more serious than that they can be dealt with in the relevant places in the analyses.

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[21] The more idiomatic term "Danes" is used – in line with our neighbouring countries – to describe the 90-95% of the population which Statistics Denmark designates "Other".

[22] A d-family is defined as one or more persons who live at the same address and who are either: Single, a married couple, registered partners (two persons of the same sex who are civilly married), cohabitants (with joint children) or living together (without joint children).

Figure 5.1. Overview over the registers and variables used in the analysis

Register	Variable
Population statistics	Contains a large number of demographic variables, e.g. sex, age, marital status, date of marital status, etc. Also contains the variables country of origin and date of entry.
Integrated database for labour market research (IDA)	Consists of variables from different registers. Contains information about education, wages, occupation and other labour market variables.
Overall social statistics	Contains information abort various social benefits received, plus duration, e.g. old age pension, early retirement benefit, unemployment benefit, cash benefit, etc.
Crime statistics	Contains information about criminal records, case decisions, etc.
Labour market schemes (AMFORA)	Information on whether the person has been in a labour market scheme (e.g. job training, leave of absence, early retirement). Includes starting and finishing dates, and number of hours in the scheme.
Central register for Labour Market Statistics (CRAM)	Contains information on annual degree of unemployment and membership of unemployment insurance funds.
Income statistics	Contains information about practically all kinds of personal income and paid taxes.
Rent subsidy register	Information on rent subsidy/rent subsidy to non-pensioners, rent, etc.
Housing and Building Register (BBR)	Information on the size and use of housing, whether it is owner-occupied or rented accommodation, etc.
National Hospital Discharge Register	Information about use of hospitals, including admissions and visits to the casualty ward. Also contains both administrative and medical information, e.g. diagnoses.
National Health Service Register	Contains information about services carried out in the primary health sector by doctors, specialists, dentists, etc.
Education Classification Module (UKM)	Includes variables on examination averages at upper secondary schools/higher preparatory courses/adult education centres (VUC), year of completion, etc.

5.3 Design, response, representativeness and non-response in the main survey

The main survey is described in more detail below. In addition, the representativeness of the sample is analysed, including an analysis of the non-response.

5.3.1 Design of the main survey

As mentioned in section 5.2, the main survey has been carried out among immigrants and descendants from eight countries, namely Ex-Yugoslavia, Iran, Lebanon, Pakistan, Poland, Somalia, Turkey and Vietnam. The interviews took place between November 1998 and July 1999 using bi-lingual interviewers, so that the respondents could choose between being interviewed either in Danish or in their own language, or alternatively, in English. A letter had previously been sent to all selected persons explaining the purpose of the survey and giving them notice that they would be contacted by telephone in the near future. Originally, all the interviews were meant to be telephone interviews, but this soon proved

difficult, simply because it was often difficult to obtain phone numbers. It was therefore necessary to supplement with face-to-face interviews in order to achieve a sufficiently high response rate for each of the eight groups. For example, it was only possible to find phone numbers for 62% of the selected Somalis. Statistics Denmark normally manages 80-82% in their omnibus surveys.[23]

The CATI method (Computer-Assisted Telephone Interviewing) was used in the telephone interviewing, i.e. interviewers read out the questions from a computer screen and entered the answers directly. If the interviewing was carried out in a foreign language, the questions appeared on the screen in the language concerned. This was not possible for Arabic (Lebanese), Farsi (Iranians) and Vietnamese, however, because many of the characters in these three languages are not available on computers in Denmark. In these cases, the computer only controlled the various question filters, while the interviewers read out the questions from a hard copy of the questionnaire. This ensured that all respondents were interviewed in as similar a way as possible across all languages.

Table 5.1 shows which language the respondents have been interviewed in. As can be seen, respondents have mostly been interviewed in their own language, and only to a smaller degree in Danish, though this varies considerably between the eight nationalities. The highest proportion interviewed in Danish was among the Pakistani respondents, namely 57.9%, while the lowest was among Somalis, with 3.7%.

Table 5.1. Respondents in the main survey, by interview language and nationality. Per cent

	Ex-Yugoslavia	Iran	Lebanon	Pakistan	Poland	Somalia	Turkey	Vietnam	All
Own language[1),2)]	75.3	58.0	82.4	42.1	58.9	96.3	78.0	48.2	65.5
Danish	24.7	42.0	17.6	57.9	41.1	3.7	22.0	51.8	34.5
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
	……..…….Number…….……..								
	489	410	421	430	438	410	565	452	3,615

[1)] Own language for the eight nationalities are: Ex-Yugoslavia: Serbo-Croat; Iran: Persian (Farsi); Lebanon: Arabic; Pakistan: Urdu/Punjabi; Poland: Polish; Somalia: Somali; Turkey: Turkish; Vietnam: Vietnamese.
[2)] Two persons from Ex-Yugoslavia and Pakistan respectively were interviewed in English

In the face-to-face interviews, the interviewers brought a laptop and also read out the questions directly from the screen, which ensured uniformity across languages with this method too. The average interview time for the telephone interviews was 25 minutes. For technical reasons, Statistics Denmark has not recorded interview times for the face-to-face interviews.

[23] See section 5.6 for a more detailed description of Statistics Denmark's experiences with data collection among immigrant groups.

5.3.2 Response rate in the main survey

Table 5.2 shows the results of the main survey for the eight countries. As can be seen, the response rate varies considerably from country to country, from 46.4% for Somalia to 63.6% for Vietnam. The response rate for the survey as a whole is 57.8%, corresponding to a non-response rate of 42.2%. This is a not insignificant non-response, and could seriously compromise the representativeness of the group of respondents in relation to the general population. However, the analyses of the data show that there are no serious problems with representativeness. More about this in the next section.

Table 5.2. Results of the main survey

	Original sample	Completed interviews			Non-response			Respon-se rate	Refu-sals[1)]
		Telephone	Face-to-face	Total	Refu-sals[1)]	Other	Total		
	number							%	
Ex-Yugoslavia	837	463	26	489	87	261	348	58.4	14.1
Iran	712	328	82	410	48	254	302	57.7	11.8
Lebanon	711	340	81	421	40	250	290	59.2	9.7
Pakistan	709	333	97	430	32	247	279	60.6	8.0
Poland	710	425	13	438	61	211	272	61.7	11.8
Somalia	884	363	47	410	54	420	474	46.4	11.5
Turkey	983	456	109	565	75	343	418	57.5	12.8
Vietnam	711	420	32	452	31	228	259	63.6	5.9
Total	6,257	3,128	487	3,615	428	2,214	2,642	57.8	10.9

[1)] Only based on telephone interviews.

Compared with similar interview surveys among immigrant groups, a response rate of 57.8% does not seem especially low, however. For example, in a survey of Denmark, Birgit Møller and Lise Togeby (1999) achieve a response rate of 48.2% among immigrants from Bosnia, Somalia, Lebanon and Turkey. They used a slightly different method, however, only attempting to directly contact those persons in the sample for whom they could find a telephone number, and sending a postal questionnaire to the others. In Norway, Elisabeth Gulløy et al. (1997) achieved a slightly higher response rate in a survey of immigrants from Ex-Yugoslavia, Chile, Iran, Pakistan, Somalia, Sri Lanka, Turkey and Vietnam, namely 66.8%. This survey used another method again, however, being based solely on face-to-face interviews.

5.3.3 Analysis of representativeness in the main survey

The following analysis examines whether the relatively high non-response has made the respondents in the main survey less representative of the overall population of non-Western immigrants and descendants from Ex-Yugoslavia, Iran, Lebanon, Pakistan, Poland, Somalia, Turkey and Vietnam – hereafter called "the whole population". In principle, we want to determine whether the distribution of answers to the questions (the dependent variables) in the main survey is the same as the distribution we would have obtained if we had asked everybody in

the whole population. Since this is obviously not possible, we examine instead the distribution of respondents in the main survey by central background variables (the independent variables), such as sex, age, geography and personal income. If these distributions agree well with those for the whole population, then we can reasonably assume that the respondents have not answered the questions much differently than the whole population would have done.[24]

In Table 5.3, the respondents in the main survey and the whole population are distributed by age and sex. As can be seen, there is no great difference between the distribution of respondents and that of the whole population. There is an extraordinarily good agreement between the distributions by gender in particular, 52.8% and 47.2% of respondents in the main survey being men and women respectively, compared with 52.3% and 47.7% for the whole population. For all age groups, there are no more than a couple of percentage points between the two populations. For example, 19.6% of women in the main survey are in the 40-49 age group, against 17.3% for the whole population, which is completely acceptable.

Table 5.3. Respondents in the main survey and the whole population of non-Western immigrants and descendants from the eight countries, by age and sex. Per cent

	Respondents in the main survey			Whole population, 1/7-1998		
	Men	Women	Total	Men	Women	Total
16-17-year-olds	5.7	6.1	5.9	5.0	5.0	5.0
18-24-year-olds	16.5	18.5	17.4	17.8	20.4	19.0
25-29-year-olds	12.8	16.6	14.6	14.1	16.5	15.3
30-39-year-olds	33.0	26.2	29.8	31.6	26.7	29.2
40-49-year-olds	17.3	19.6	18.4	16.8	17.3	17.1
50-59-year-olds	9.9	8.7	9.4	9.5	8.7	9.1
60-70-year-olds	4.8	4.3	4.5	5.2	5.4	5.3
Total	100.0	100.0	100.0	100.0	100.0	100.0
%	52.8	47.2	100.0	52.3	47.7	100.0
	----------number----------			----------number----------		
	1,909	1,706	3,615	56,840	51,894	108,734

Source: Special data run based on 2% sample of the population statistics register.

In general, the younger age groups are slightly underrepresented, while the older groups are typically slightly overrepresented. This is due to the fact that the young can often be difficult to get in touch with, while the older respondents are easier to get hold of. This has also been a problem in other questionnaire surveys, however (see, for example, Jørgen Goul Andersen, 1998; Gunnar Viby Mogensen et al., 1995).

Similar tables have been made to analyse the representativeness with regard to geography, marital status, attachment to the labour market and personal income

[24] In the following section, we take a closer look at the non-response, including whether refusals differ significantly from those who have been interviewed.

(not shown here, but see Viby Mogensen and Matthiessen (2000, pp. 386-390) for further details). They show all that the main survey is fairly representative with regard to these variables. There are some differences, of course, e.g. too few single respondents and too few from the Metropolitan area. Wage earners are also slightly overrepresented. These biases also exist in other questionnaire surveys among Danes, however, and are not just confined to this study.

The final analysis in this section is an overall analysis involving all previously mentioned variables, plus a broader range of other background variables which might conceivably have an influence on the response in the main survey. At the same time, the statistical analyses are formalised in a logistic regression model, which attempts to estimate precisely how the various background variables influence the likelihood of persons in the original sample participating in the main survey. The results of this regression are shown in table 5.4.

Table 5.4. Factors of importance for participation in the main survey

Factor	
Country of origin	***
Sex	Not significant
Age	*
Geographical region	**
Marital status	***
Children under 18 (0/1)	***
Owner-occupier or tenant (0/1)	Not significant
Immigrant or descendant (0/1)	Not significant
Income	Not significant
Attachment to the labour market	***
Housing conditions	Not significant

Notes: * Significant at the 10% level
** Significant at the 5% level
*** Significant at the 1% level
The response variable is 1 for an interview and 0 for a non-interview. See table 5.9 for more detailed results.

As can be seen from the table, country of origin is a significant factor, which the response rates in table 5.2 also showed. For example, the response rate for Somalia was considerably lower than the average, while that for Vietnam was a lot higher. We have tried to correct for this in the analyses in the main survey by means of weighting (see section 5.5 below). Gender, on the other hand, has no importance, which table 5.3 also showed. The table also shows that age is not significant at the 5% level, but is significant at the 10% level.

This might seem surprising, since there was nothing in table 5.3 to suggest any particular age biases, apart from the younger age groups being slightly underrepresented and the older overrepresented. Table 5.9 even shows that the 30-49-year-olds are significantly less likely to participate in the survey than the 16-29-year-olds – i.e. almost the exact opposite of what is suggested in table 5.3. This is connected with the fact that age is correlated with marital status – young

people are often also single. One explanation, therefore, might be that, while young respondents are generally more willing to participate in the survey, they are also often single and thus harder to get in touch with. This can also be seen from table 5.9: Single persons are significantly less likely to participate in the main survey than married persons. There are therefore two opposite effects, where marital status effect more or less eliminates the age effect. The marital status variable is also significant even at the 1% level. This can again seem surprising, since appendix table 5 in Viby Mogensen and Matthiessen (2000, p. 389) shows that there is a very good agreement between the respondents and the whole population as regards marital status. The reason is that, by chance, the original sample of 6,257 persons was biased, single persons being overrepresented and married persons underrepresented– 40.3% and 53.1% respectively in the original sample, compared with 37.7% and 56.7% respectively in the whole population (cf. appendix table 5 in Viby Mogensen and Matthiessen (2000, p. 389)). The chance overrepresentation of single persons in the original sample, together with the lower probability of getting an interview with single people, thus results in a similar proportion of single people in both the main survey and the whole population.

Geographical region is also significant. Here, the Metropolitan area is underrepresented, but this is also the case in other questionnaire surveys.

As table 5.4 and 5.9 also shows, having children under 18 is also significant, respondents without children under 18 being slightly underrepresented among the respondents.

Attachment to the labour market is an important variable in this analysis. This variable has an influence on the probability of participation in the main survey. Wage earners and the unemployed in particular are significantly more or less likely respectively to participate than people outside the labour force. What is perhaps more surprising is that the self-employed do not differ from people outside the labour force.

The analysis also includes variables which could be thought to have an influence on participation from the outset: Whether a person is an immigrant or descendant, owner-occupier or tenant, lives in a block of flats or single-family house, etc., and personal income. However, as the table shows, none of these variables seem to have a significant influence.

The analyses of the representativeness of the main survey showed that there is a generally good agreement between the respondents in the main survey and population as a whole. In other words, persons in the main survey have approximately the same distribution by sex, age, marital status, attachment to the labour market and income as the whole population of immigrants and descendants from the eight countries. There are some differences, of course, e.g. too few single re-

spondents and too few from the Metropolitan area. Wage earners are also slightly overrepresented. These biases also exist in other questionnaire surveys, however, and are not just confined to this study.

5.3.4 Analysis of refusals

Given that the main survey constitutes a fairly representative cross-section of the whole population of immigrants and descendants in Denmark, there seems little point in analysing the total non-response (2,642 persons) by the same background variables.[25]

Of more interest would be to examine whether there is any pattern in the non-response – i.e. persons contacted who, for various reasons, do not want to take part in the survey – and thus perhaps be able to substantiate some of the explanations given above. For technical reasons Statistics Denmark has not recorded reasons for non-response in the face-to-face interviews. The following therefore focuses solely on the telephone interviewing, which does, after all, constitute the major part of the total number of interviews (3,128 out of a total of 3,615 – cf. table 5.2).

Table 5.5 shows the reasons for non-participation in the main survey for persons where there has been telephone contact with either the respondent or someone

Table 5.5. Recorded non-response in the main survey (excluding face-to-face interviews) after contact with household, by reason for non-interview

Reason	%	Number
Interview partly carried out	3.7	30
Refusal	53.2	428
Illness/handicap	5.6	45
Dead	0.5	4
Away from home in the interview period	8.3	67
Moved	23.7	191
Language difficulties	5.0	40
Total	100.0	805

from the respondent's household. As can be seen, the refusals constitute a majority, namely 53.2%. The next biggest group consists of persons who have moved, namely 23.7%. It can perhaps seem surprising that there are as many as 40 cases – or about 5% – where the reason given for a non-interview is language difficulties, especially in view of the fact that bi-lingual interviewers have been used. But, as with Danish, there can be dialectical differences within the various foreign languages which have made it difficult to carry out the interview.

[25] It should be noted that a lot of background information about the non-response is available due to the fact that the sample has been drawn from the population register in Statistics Denmark.

In table 5.6, refusals and respondents in the telephone interview part are distributed by sex and age. There seems to be a tendency in these figures: There is a smaller proportion of young persons (16-29-year-olds) among the refusals than among the respondents, 30.2% of refusals being in this age group compared with 37.9% of the respondents. The opposite is true for the older age groups, wherethe proportions are higher among the refusals than among the respondents – especially as regards 40-49-year-old men. This indicates that the young have been more positive about the main survey than the older age groups. One of the conclusions in the section on representativeness was that the young are slightly underrepresented. This can hardly be due to an unwillingness to participate in the main survey, therefore, but, as previously observed, probably because the young are more difficult to get hold of.

Table 5.6. Refusals and respondents in the main survey, by age and sex. Per cent

	Refusals in the main survey			Respondents in the main survey		
	Men	Women	Total	Men	Women	Total
16-29-year-olds	24.6	35.1	30.2	34.7	41.0	37.9
30-39-year-olds	33.0	29.8	31.3	32.9	25.5	29.8
40-49-year-olds	25.6	20.9	23.1	17.5	20.1	18.4
50-70-year-olds	16.8	14.2	15.4	14.9	13.4	13.9
Total	100.0	100.0	100.0	100.0	100.0	100.0
%	47.4	52.4	100.0	52.4	47.6	100.0
		number			number	
	203	225	428	1,640	1,488	3,128

Similar analyses have been carried out regarding geography and marital status (not shown here, but see Viby Mogensen and Matthiessen (2000, pp. 393-395) for further details). These analyses showed that there was relatively more refusals in the Metropolitan area and less in Jutland and the rest of the islands, which is also found in other surveys among Danes. Regarding marital status the analyses showed no great differences between refusals and people interviewed.

5.4 Representativeness in the omnibus survey

The omnibus survey is the final component of the questionnaire part of the survey. This was a telephone interview, carried out in February 1999 by Statistics Denmark's permanent team of interviewers, using the CATI method. Statistics Denmark carries out omnibus surveys, which typically consist of several different topics, every month. As mentioned in section 5.2, the questions in the omnibus survey were selected from the main survey. For these questions, it was therefore possible to compare responses for immigrants and descendants alone with those for the population as a whole (including immigrants and descendants).

The extent to which the 961 respondents in the omnibus survey are representative of the Danish population as a whole as regards central background variables has also been analysed.

These analyses showed that while the main survey constituted a reasonably representative cross-section of immigrants and descendants in Denmark, the omnibus survey constitutes a reasonable, albeit not quite as representative, cross-section of the Danish population. There are certain qualifications, however: As in the main survey, there are too few young people and too few from the Metropolitan area. There are bigger differences with regard to marital status, namely too few single persons and too many married persons. This is also the case in other questionnaire surveys, however.

5.5 Weighting of data from the main survey

Table 5.2 showed the number of persons interviewed and the size of the samples for each of the eight immigrant groups. The relative size of the samples was based primarily on prior expectations, which in turn were partly based on Norwegian experiences, of the likely response rates for each group. The relative size of the samples, and thus also of the number of interviews obtained, does not correspond to the relative size of the eight immigrant groups in the population as a whole, therefore. The sampling method used here is stratified sampling, with eight strata. This means that, when reporting the overall results for the eight nationalities, they must first be weighted. The formula used for this is described below, and the weighting procedure corresponds to that used in a similar Norwegian survey, cf. Elisabeth Gulløy et al. (1997).

The terms used in the formula are defined below:

- υ_s – weight of the individual immigrant group
- n_s – number of persons interviewed in the immigrant group concerned
- n – total number of persons interviewed from all eight groups
- N_s – number of persons in the immigrant group concerned in the general population on 1/7-1998
- N – total number of persons from all eight groups in the general population on 1/7-1998

Where s = 1,2,...,8

The weights are calculated using the following formula:

$$\upsilon_s = \frac{n}{N}\frac{N_s}{n_s} = \frac{N_s}{N} n \frac{1}{n_s}$$

The first term to the right of the equals sign represents the size of the individual immigrant group as a proportion of the whole Danish population on 1/7-1998. This proportion is then multiplied by the total number of interviews in the main survey, which gives the number of interviews that would be obtained for each immigrant group if the mutual relations between the number of interviews for the eight immigrant groups corresponded to the distribution in the whole population. In the last term, this is divided by the number of interviews actually ob-

tained for the group concerned, giving the weight for this group. The weights for each group are shown in table 5.7.

As can be seen from the table, a big weight is attached to immigrant groups such as Ex-Yugoslavia and Turkey because the great majority of immigrants and descendants in Denmark come from these two countries (but not in the samples).

Table 5.7. Weighting in the main survey

Country	υ_s	n_s	Ns
Ex-Yugoslavia	1.82793	489	26,886
Iran	0.75372	410	9,295
Lebanon	0.72534	421	9,185
Pakistan	0.85172	430	11,016
Poland	0.70447	438	9,281
Somalia	0.57265	410	7,062
Turkey	1.69880	565	28,870
Vietnam	0.52510	452	7,139
Total	-	n: 3,615	N: 108,734

Note: Key: see above.

Many of the tables in the book are based on administrative register data and here are also used a special weighting for sex and age. In many cases, the sex and (especially) age distributions of the immigrant groups will differ a lot from those of Danes'. For example, many of the immigrant groups have a much larger proportion of young persons than is the case for Danes. This naturally has implications for, for example, immigrants' take up of age-specific social benefits. In order to better compare analyses of immigrant groups with similar analyses of Danes, the various immigrant groups are weighted by sex and age so that their sex and age distributions match those of Danes. An example of this is shown in table 5.8.

Table 5.8. Example of weighting for immigrants from Ex-Yugoslavia

	Immigrants from Ex-Yugoslavia 1/7-1998		Danes 1/7-1998[1)]		Weights for Ex-Yugoslavia 1/7-1998	
	Men	Women	Men	Women	Men	Women
18-24-year-olds	1,608	1,558	4,173	4,121	1.028	0.990
25-29-year-olds	1,609	1,428	3,485	3,200	0.858	0.838
30-39-year-olds	3,838	3,486	7,108	6,939	0.734	0.745
40-49-year-olds	2,844	2,680	6,588	6,506	0.918	0.908
50-66-year-olds	2,460	2,301	9,840	9,848	1.585	1.601
Total	12,359	11,453	31,194	30,614		

[1)] Representative sample of 2% of the whole population, limited to persons of Danish origin.

The weights are calculated on the basis of the number of persons (from, for example, Ex-Yugoslavia) in a given age group as a proportion of the total immigrant population from the country concerned for both men and women. This proportion is then compared with the proportion of Danes in the same age group.

The proportion among Danes is based on the 2% sample of the Danish population, but this is unimportant, since the weighting only takes account of the relative sizes. In general, the weights for older men and women are over 1, which reflects the fact that there are relatively few elderly male and female immigrants, while the weights for young immigrants are generally under 1, since there are relatively more young immigrants than young Danes.

5.6 Interviewing immigrant groups – experiences from Statistics Denmark

This section describes the experiences of Statistics Denmark in this relatively new research area. Statistics Denmark has been carrying out Danish questionnaire surveys for years, but not previously *only* among groups of immigrants and descendants.

As table 5.2 showed, the original sample was 6,257 persons. Initially, a sample size of 6,150 was decided on, but since a sample will usually include some persons who have died, emigrated or where information about name and address are missing, the number was increased to the mentioned 6,257. This resulted in 5,993 persons from the Central National Register (CPR), corresponding to a loss of 3%, compared with a normal loss from a CPR-based sample of ½-1%. The sample was therefore further increased, ending with a final total of 6,257 persons.

The main survey was carried out mainly as a telephone interview survey, with face-to-face interviews only to be used if the response rate for the telephone interviewing was too low. For several reasons, however, it quickly became clear that face-to-face interviews were necessary. Firstly, a much lower proportion of telephone numbers was found than in normal samples – 68% for the whole sample, compared with 80-82% normally. The figures for the various immigrant groups ranged from 77% for Poland to only 62% for Somalia. The lower figures must be attributed partly to an actual lower telephone ownership among immigrant groups, partly a higher proportion with unlisted numbers, and a generally greater search uncertainty due to the unfamiliarity of the names. Secondly, the quality of the numbers found was also lower than normal, primarily because many of them were mobile phone numbers. Moreover, many of these were "dead numbers", i.e. the phone was switched off, and a considerable number of mobile phones were not in the possession of the persons registered as owner.

As mentioned in section 5.3.1, the main survey was to be carried out using bilingual interviewers, so that the respondents could choose to be interviewed either in their own language or in Danish. The interviewers were required to speak fluent Danish, since they also had to evaluate the respondent’s knowledge of Danish after each interview. They also had to be able to speak the foreign language concerned well, of course. Potential interviewers were found via notice boards at various colleges in the Copenhagen area, the Internet, AMU centres

(Adult Vocational Training) and interpreter colleges, and through Statistics Denmark's own full-time interviewers. This resulted in a total of 75 candidates, of whom 28 were hired, giving at least two interviewers per country (typically, there were 3-4 per country). Statistics Denmark is highly satisfied with the quality of these interviewers, which is also reflected in the fact that about 10 of them have subsequently been offered jobs as full-time interviewers.

The interviewers were also involved in the translation of the questionnaires to the various foreign languages, some of them being translated by the interviewers themselves, while the rest were translated by external translators. The translated questionnaires were then shown to all the interviewers for comment and modified accordingly.

With regard to the actual interviewing, each version of the questionnaire was entered into a computer. As previously mentioned, this was not possible for the Arabic, Farsi and Vietnamese versions because of the many special characters in these languages. Instead, the interviewer had a hard copy of the questionnaire next to the computer. The response rate in the telephone interviewing was no higher than 50.1%, which is a lot lower than in normal questionnaire surveys carried out by Statistics Denmark. This is presumably due to the particularly poor quality of the telephone numbers, especially since the non-response for the telephone interviews is not much higher than in Statistics Denmark's usual omnibus surveys. As a result, an additional round of face-to-face interviews was carried out, which raised the response rate to 57.8%.

5.7 Representativeness of the register samples

As described in section 5.2, the register samples consist firstly of a 2% sample drawn from the whole Danish population, i.e. including immigrants and descendants, and totals approximately 100,000 persons. And secondly of a 25% sample drawn from non-Western immigrants and descendants, totalling approximately 50,000 persons. Naturally, these must also be representative with regard to sex, age, marital status, education, attachment to the labour market, and other important background variables. Both samples involve a large number of persons, however, all of whom are randomly selected from the CPR register, and according to the law of large numbers, the distribution of persons in the samples is therefore likely to approximate the actual distribution very closely. For this reason alone, further analysis of these two samples is not considered necessary. Furthermore, as regards the sample of Western immigrants and descendants, there are no figures for the whole population of this group in Denmark, which makes it impossible to control the representativeness. There are for the 2% sample, on the other hand. Tables corresponding to those in the main survey show almost perfect agreement between the cross-section of persons distributed by the background variables and the Danish population as a whole. These tables can be obtained from the Research Unit on request.

5.8 The Law Model

In the analysis by Eskil Wadensjö is used a special calculation model called the Law Model. This is briefly described in the following, based on Flemming Petersson's summary of the model's main features in Statistics Denmark (1998).

The Law Model was developed at the end of the 1970s, and consists of a sample of 3.3% of the whole Danish population, supplemented with a wide range of personal information, mostly from Statistics Denmark's registers. A new sample is drawn every year, so it is not possible to use the Law Model to follow the same person over several years. The model also includes codes for the various legislative areas, e.g. tax and pensions legislation, including the rates for these areas, e.g. tax rates and pension scales.

Today, the Law Model is mainly used to analyse the effects of new draft legislation. For example, how will people be affected by major tax changes? Will they be better or worse off? The Law Model can also be used to analyse how a tax change will affect the state's finances. The detail of the model with regard to transfer payments, together with detailed knowledge of how much tax people pay, make it well suited for analyses such as Eskil Wadensjö's analyses of the socio-economic effects of immigration.

Table 5.9. Logistic regression of the probability of participating in the main survey

Variable	Coefficient	Standard error
Constant	***0.7169	0.1405
Country		
Ex-Yugoslavia	*-0.1958	0.1089
Iran	-0.1632	0.1135
Lebanon	-0.1820	0.1139
Pakistan	-0.0525	0.1225
Poland	-0.0852	0.1170
Somalia	***-0.6254	0.1085
Turkey	**-0.2547	0.1090
Vietnam	-	-
Sex		
Woman	-0.0177	0.0553
Men	-	-
Age		
16-29-year-olds	-	-
30-49-year-olds	**-0.1566	0.0661
50-70-year-olds	-0.1369	0.0936
Geographical area		
Metropolitan area	*-0.1039	0.0639
Rest of the islands	0.0821	0.0808
Jutland	-	-
Marital status		
Single	***-0.2216	0.0667
Cohabiter	-0.1293	0.1105
Married	-	-
Children under 18 years		
Have children u. 18 years	***0.1905	0.0618
Have no children u. 18 years	-	-
Owner-occupier or tenant		
Owner	0.0650	0.0933
Tenant	-	-
Immigrant/descendant		
Descendant	0.0012	0.1217
Immigrant	-	-
Income		
Pers. income (1,000 DKK)	-0.0001	0.0004
Attachment to the labour market		
Unemployed	**-0.1988	0.0886
Wage earners	**0.1587	0.0721
Self-employed	0.0785	0.1241
Outside the labour force	-	-
Housing conditions		
Block of flats	-0.0977	0.0793
Others	-0.2400	0.1867
Single family houses	-	-
-2LogL	8,248.7	
No. of observations	6,156	

Note: Key see table 5.4.

References

Andersen, Jørgen Goul, Hans Jørgen Nielsen and Marie Louise Hultin (1998). *Borgerne og lovene*. Aarhus.

Blom, Svein (1997). Tracing the integration of refugees in the labour market - A register approach. *Statistical Journal of the United Nations*, *no. 3*.

Blom, Svein (1998). Levekår blant ikke-vestlige innvandrere i Norge. Oslo.

Broomé, Per, Ann-Karin Bäcklund, Christer Lundh and Rolf Ohlsson (1996). *Varför sitter "brassen på bänken?" eller "Varför har invandrarna så svårt att få jobb?"*. Stockholm.

Chiswick, Barry (1991). *Journal of Economic Literature, XXIX june*, page 627-628.

Coleman, David and Eskil Wadensjö with contributions by Bent Jensen and Søren Pedersen (1999). *Immigration to Denmark. International and national perspectives*. Aarhus.

Dahl, Jeanette E., Vibeke Jacobsen and Ruth Emerek (1998). *Indvandrere og arbejdsmarkedet*. Aalborg.

Danmarks Statistik (1998), Nyheder og information fra Danmarks Statistik 1998:1. Copenhagen.

Danmarks Statistik (1999). Statistiske Efterretninger, *Arbejdsmarked 1999:9*. Copenhagen.

Det økonomiske råd (1997). *Dansk økonomi efteråret 1997*. Copenhagen.

Ejby Poulsen, Marius and Anita Lange. 1998. *Indvandrere i Danmark*. Copenhagen.

Ekberg, Jan and Björn Gustafsson (1995). *Invandrare på arbetsmarknaden*. Stockholm.

Eurostat (1998). Labour Force Survey, Results 1997. Bruxelles.

Gulløy, Elisabeth, Svein Blom and Agnes Aall Ritland (1997). *Levekår blant innvandrere 1996*. Oslo.

Gulløy, Elisabeth, Svein Blom and Agnes Aall Ritland (1997). *Levekår blant innvandrere 1996 B Dokumentations rapport med tabeller*. Notat 97/6. Statistisk sentralbyrå. Oslo.

Hummelgaard, Hans, Leif Husted, Anders Holm, Mikkel Baadsgaard and Benedicte Olrik (1995). *Etniske minoriteter, integration og mobilitet*. Copenhagen.

Husted, Leif, Helena Skyt Nielsen, Michael Rosholm and Nina Smith (1999). *Employment and Wage Assimilation of Male First Generation Immigrants in Denmark*. Aarhus.

Ingerslev, Olaf, Niels Ploug and John Reib (1992). *Forløbsanalyser af de 25-59 årige i 1980'erne*. Dokumentation 4. Socialkommissionens sekretariat. Copenhagen.

Jørgensen, Tor (1997). *Utdanning*. Chapter 5 in Kåre Vassenden (ed.) *Innvandrere i Norge*. Oslo.

Körmendi, Eszter (1986). *Os og de andre*. Publikation nr. 153. Socialforskningsinstituttet. Copenhagen.

Lundh, Christer and Rolf Ohlsson (1994). *Från arbetskraftsimport till flyktinginvandring*. Stockholm.

Mogensen, Gunnar Viby (ed) (1995). *Work Incentives in the Danish Welfare State. New Empirical Evidence*. Aarhus.

Mogensen, Gunnar Viby and Poul Chr. Matthiessen (2000). *Mislykket integration?* Copenhagen.

Mogensen, Gunnar Viby and Poul Chr. Matthiessen (eds.) (2000). *Integration i Danmark omkring årtusindskiftet*. Aarhus.

Møller, Birgit and Lise Togeby (1999). *Oplevet diskrimination. En undersøgelse blandt etniske minoriteter*. Nævnet for Etnisk Ligestilling. Copenhagen.

Pedersen, Peder J. and Nina Smith (1995). *Taxed and Non-taxed Labour Supply: Wages, Taxes, and Cost of Work.* Chapter 3 in Gunnar Viby Mogensen (ed.) *Work Incentives in the Danish Welfare State.* Aarhus.

Pedersen, Peder J. and Nina Smith (1995). *Unemployment and Incentives.* Chapter 7 in Gunnar Viby Mogensen (ed.) *Work Incentives in the Danish Welfare State.* Aarhus.

Pedersen, Søren and Peder J. Pedersen (1998). *Arbejdsmarkedpolitik, arbejdsløshed og beskæftigelsesopsving.* Chapter 9 in Nina Smith (ed.) *Arbejde, incitamenter og ledighed.* Aarhus.

Pedersen, Søren (1999). Migration to and from Denmark during the period 1960-1997, Chapter 4 in *Immigration to Denmark* by David Coleman and Eskil Wadensjö. Copenhagen.

Poulsen, Marius and Anita Lange (1998). *Indvandrere i Danmark*. Copenhagen.

Regnér, Håkan and Eskil Wadensjö (1999). *Arbetsmarknadens funktionssätt i Sverige.* Stockholm.

Rosholm, Michael, Kirk Scott and Leif Husted (2000). *The Times They Are A-Changin'*. Aarhus.

Smith, Nina (1998). *Økonomiske incitamenter til at arbejde*. Chapter 7 in Nina Smith (ed.) *Arbejde, incitamenter og ledighed.* Aarhus.

Socialstyrelsen (1999). *Social och Ekonomisk förankring bland invandrare från Chile, Iran, Polen och Turkiet.* Invandrares levnadsvillkor 2. SoS-rapport 1999:9. Stockholm.

Wadensjö, Eskil (1999). *Economic Effects of Immigration*. Chapter 7 in David Coleman and Eskil Wadensjö (1999).

Wadensjö, Eskil (2001, under publication). *Immigration and the public sector in Denmark*. Aarhus.

Økonomiministeriet (1997). *Økonomisk oversigt december 1997.* Copenhagen.

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