Immigrants in Denmark: An Analysis of Access to Employment, Class Attainment and Earnings in a High-Skilled Economy

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INSIDE Paper No. 12
July 2009

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Abstract

This paper analyses the process of labour market insertion of first-generation immigrants in Denmark using Danish administrative data for 2002. Results show that there are large gaps in participation and employment opportunities between native born Danes and immigrants, as well as within immigrants depending on the country of origin and time of arrival. These gaps are significantly larger for non-Western immigrants and for those arriving after 1984 and do not seem to be significantly reduced after controlling for education. Analysis of class attainment shows that immigrants are significantly less likely to access jobs in the professional and intermediate classes but more likely to be self-employed than their native-born counterparts. The probability of being employed in professional and intermediate classes increases over arrival-cohorts, although the increase is more marked in the case of the latter class. There are also significant differences in class attainment by country of origin. Differences in class attainment and in work experience play a crucial role in explaining immigrants-native gaps in earnings. The paper ends with a discussion of the relationship between the labour market performance of immigrants and the Danish 'flexicurity' model.

Keywords: Immigrants; Employment; Class Attainment; Earnings; Labour Demand; Specific Skills; Denmark

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1. Introduction

The rapid growth in immigration inflows constitutes one of the most important changes occurred in West European labour markets in the last decades. Although Western advanced economies differ markedly in the starting time and the pace of immigration inflows, a common characteristic in all of them is the existence of significant differences in the observed labour market performance of immigrants relative to natives. Since these differences are observed even amongst individuals of the same levels of education, age and experience as their native counterparts, they have often been refereed to as immigrant 'penalties' (see e.g. Heath and Yu 2005).

Most existing research on the labour market performance of immigrants has focused on earnings. Special attention has been paid to the process of earning assimilation over time (see e.g. Chiswick 1978; Borjas 1985; 1995; 2000). A central research goal in the assimilation literature has been to estimate the effect of individual characteristics, such as age, level of education, work experience, length of stay in the host country or language-skills, on the rate at which the pay gap between native and foreign-born narrows over time, which is referred to as the 'assimilation rate' (Friedberg 1993). What is often assumed in these micro-level approaches is that rewards in the labour market are only linked to individuals as bearers of human capital. Yet it is apparent that earnings are not only determined by personal characteristics but crucially by the characteristics of the jobs they occupy. The structural properties of the tasks individuals perform at their jobs generate different incentives for employers to implement different compensation schemes (see: Goldthorpe 2000, chap. X). This implies that the observed returns to the same stock of individual human capital can be very different depending on the nature of the job employees are employed to perform (Polavieja 2005). Under this light, at least as important as estimating what are the labour

market returns to different individual characteristics is analysing the determinants of individuals' access to the different classes of jobs.

This paper analyses the labour market insertion of immigrants in Denmark by focusing on three different, although evidently interrelated, processes, namely: employment access, class attainment and earnings. This approach, which stresses the importance of having access to particular types of jobs, helps us bring the occupational structure to the fore of the analysis of immigrant penalties in labour market performance and thereby provides a broader picture of immigrant penalties than it is usually available in the earnings assimilation literature.

Empirical analyses are carried out using Danish administrative data for the year 2002. The data is based on a 10 per cent representative sample of the Danish population and 100 per cent of first-generation immigrants. This sample design allows us to investigate not only immigrant-native gaps in each of the analysed insertion processes but also within-immigrant differences by country of origin and time of arrival. The cross-sectional nature of the data analysed forces us, however, to work within a rather static framework, which is admittedly a methodological drawback. It must also be noted that since we will be looking at one single country, we will not be able to test general welfare and labour-market institutional effects. Yet a detailed analysis of immigrant penalties in employment access, class attainment and earnings can provide a very informative description from which macro-level institutional hypotheses can be and will be generated.

The paper is divided into five sections including this introduction. Section 2 provides a review of the literature on native-immigrant gaps in the Danish labour market and defends the methodological approach adopted in this paper. Section 3 puts the case of study in context by providing a review of the recent immigration history of Denmark. Section 4 presents the data and the methodology used in this research.

Empirical findings are presented in Section 5. Finally, Section 6 concludes with a discussion of the relationship between immigrant penalties and the Danish 'flexicurity' model.

2. Motivation and Literature Review

Most of the existing analyses on immigrant-native gaps in Denmark have focused on earnings (e.g. Blume 2003, Husted *et al.* 2001). Skyt Nielsen *et al.* (2004) find that the major reason for the wage gap between Danish natives and immigrants is a lack of employment assimilation. They argue that the wage gap would have been much smaller if only immigrants had accumulated more work experience in Denmark. Yet the process of experience accumulation is neither analysed nor discussed in their paper.

The insight that getting work is the main obstacle for the labour market integration of immigrants in Denmark has also been noted by Liebig (2007), Hummelgaard *et al*. (1995), Pedersen (2000), Roseveare and Jorgensen (2004) and Schultz-Nielsen (2000). It has been observed that unemployment spells for immigrants are longer and employment duration shorter than it is the case for Danes of similar characteristics (see e.g. Hummelgaard *et al*. 1995), whilst welfare-benefit rates are higher (Roseveare and Jorgensen 2004, Blume and Verner 2007). Denmark shows the highest native-immigrant gaps in both employment and unemployment of all the OECD countries (see e.g. European Commission 2003: 5). In 2004, for example, the employment rate of native-born Danes was 81.1 percent compared to 72.9 per cent among immigrants from OECD countries, and only 59.5 per cent among immigrants from non-OECD countries. The unemployment rate was almost four times higher for immigrants from non-OECD countries than among native Danes (Liebig 2007:11).

Low rates of labour-market participation of immigrants in Denmark have been a source of concern for researchers, policy-makers and commentators alike. A particularly

popular idea that has emerged in the public debates is that high social benefits and, to a lesser extent, high wage compression, could be reducing immigrants' incentives to work (see e.g. OECD 2002). This concern led the Danish government to reduce social assistance in 2001 for all immigrants who had been in Denmark for less than seven years out of the past eight (Liebig 2007). This measure followed a much larger labour-market activation package put forward by the Ministry of Refugee, Immigration and Integration Affairs. Activation measures included the introduction of 3-year integration programmes for recent arrivals. These programmes are run by the municipalities, which are offered financial incentives to achieve a successful labour market integration of their resident immigrants (Husted *et al.* 2007, Liebig 2007). Most activation programmes were enacted after 1999.

Despite providing the intellectual motivation for policy change, the idea that welfare generosity is the main factor depressing the labour market participation and employment rates of immigrants is not totally unproblematic, as it is apparent that welfare generosity has not deterred native-born Danes from participating in the labour market at the highest levels of the OECD. Therefore, other characteristics of the Danish model should also be taken into consideration. The structure of the Danish labour demand could be one such characteristic.

The high-specific-skilled bias of the Danish economic structure, in combination with high minimum wages, could conspire to reduce the demand for low-skilled labour, which in other countries is the initial port of entry for the newly-arrived. A shortage of 'bad' jobs could thereby increase the competition between natives and the foreign-born over the existing 'good' slots and this to the disadvantage of the latter. The Danish labour market would thus be a paradigmatic case of what Kesler (2006) calls low 'complementarity' between native-born and immigrants (see also: OECD 2001).

Low complementarity could push immigrants out of the labour market. This is because, given the structure of labour demand, the existing vacancies would require high levels of occupational, industry and firm-specific skills —i.e. higher than in other labour markets. The two former types of skills are acquired through a combination of vocational schooling and job-experience. In the Danish context, both tend to go in tandem —as vocational qualifications acquired through schooling are usually required to access jobs that then provide further industry skills. Yet first-generation immigrants typically lack vocational qualifications and this hinders their access to jobs providing occupation and industry-specific skills. Firm-specific skills, on the other hand, are by definition only acquired in the company and require considerable investments for employers. Firm-specific investments increase the risks associated with job miss-matches. If employers (miss)perceive that investing in the firm-specific training of immigrants is, on average, more risky than investing in native-born Danes, they will discriminate against the former in the recruitment process. Immigrants' lower opportunities to access jobs requiring specific skills will logically have a greater impact on the overall participation and employment rates in contexts where demand for such skills is comparatively high, such as the Danish one (see Figure 1a in appendix[1]).

It seems therefore apparent that employment gaps are connected to the general process of occupational attainment, given a particular occupational structure. At the same time, occupational attainment is the crucial mediating process connecting individuals to rewards —and hence differences in personal characteristics to differences in pay. Analysing employment opportunities, occupational attainment and earnings will thus provide a much more complete picture of native-immigrant gaps in labour market outcomes than focusing on any of these interconnected processes alone.

3. Migration history and national legislation regarding work permits

In response to labour market shortages in the 1960s, Denmark allowed companies to recruit a significant number of workers from abroad, mostly from Turkey, Yugoslavia and Pakistan (OECD 2003). The main increase in the number of immigrants, however, occurred after 1973, once the guest-worker policy had stopped, when family reunification and asylum remained as the two major channels of legal immigration to Denmark. The year 1985 marks the beginning of an increased inflow of immigrants from non-Western countries, mainly asylum seekers. The annual growth rate of first-generation immigrants from non-Western countries reached 15 per cent in 1986, and 17.4 per cent in 1996 (Danish Ministry of Refugee, Immigration and Integration Affairs 2006). Whereas in the 1980s the majority of asylum seekers to Denmark were Iranis and stateless Palestinians, in the 1990s the majority came from the Balkan states, Afghanistan and Somalia (OECD 2003). In 2006, immigrants constituted almost 7 per cent of the Danish population, with an additional 2 per cent being the children of immigrants born in Denmark.

Under the Danish Aliens Act aliens are allowed to enter and reside in Denmark without special permission if they are Nordic nationals[2]; European Union nationals may obtain a special residence certificate; and aliens who have relatives in Denmark may under certain conditions obtain family reunification and a residence permit. Asylum seekers are not allowed to accept any paid work during the examination of their cases. In 2001, the average duration of processing the applications was approximately 6 months for asylum applications and about 2-3 months for family reunification applications. A residence permit is granted once the refugee status has been approved. As a general rule, a residence permit carries with it the right to work in Denmark (Danish Immigration Service 2001).

4. Data, description of variables and methodology

We use Danish administrative register data for the year 2002. The data is based on a 10 per cent representative sample of the Danish population and 100 per cent of first-generation immigrants. A person is classified as first-generation immigrant if s/he is born abroad and has parents who are both non-Danish, or has one non-Danish parent and one of unknown nationality, or whose parents are both of unknown nationality. The Danish category includes people born in Denmark and having Danish citizenship, as well as people who, regardless of their own country of birth, have the Danish citizenship and at least one parent born in Denmark. The sample is restricted to people aged 15-64. Full-time students, second-generation migrants and migrants younger than seven years old at time of immigration are excluded from the analyses.

All the models of this paper are fitted to both the full sample including Danes and immigrants as well as to a sample of only immigrants arriving after 1973. This allows us not only to estimate native-immigrant gaps but also to study differences *within* immigrants depending on their country (or region) of origin and the time of their arrival. The register data does not include information on year of arrival for immigrants arriving before 1973 and this is why these immigrants are not included in the restricted immigrant sample. In the models fitted to the full sample, we will estimate separate coefficients for immigrants arriving from Western and non-Western countries. The former include those coming from EU-15 countries, plus Norway, Iceland, Liechtenstein, Luxembourg, Monaco, Andorra, San Marino, Switzerland, Vatican, Canada, USA, North America, Australia, and New Zealand. Also in accordance with the migration history of Denmark, we will distinguish between immigrants arriving before and after 1985, as this is the year inaugurating the big influx of asylum seekers. For simplicity, we call the former “old” and the latter “new” arrivals. Models fitted to the only-immigrant sample differentiate between a much more detailed list of origins and

arrival cohorts. Mean values and percentage distributions of selected variables for Danes, old migrants and new migrants, separated by sex, are provided in Tables 1a and 2a in the appendix.

The empirical analyses carried out in this paper model three different but interconnected labour market processes: employment opportunities, occupational attainment and earnings. Employment opportunities are modelled via a two-step Heckman *probit* selection equation where the decision to participate in the labour market and the probability of finding employment are assumed to be jointly and sequentially determined. Individual's *i* propensity to work can be described by the following latent function:

$$E_i^* = X_i\beta + e_{1i} \quad (\textit{employment equation}) \tag{1}$$

where X_i is a vector of explanatory variables affecting employment, β is a vector of parameters to be estimated and e_{1i} is a random variable with distribution $e_{1i} \sim N(0,1)$ that captures unobserved characteristics. The latent employment propensity can only be manifested as a binary outcome: [1] either the individual is employed ($E_i^* > 0$) and then $E_i^* = 1$; or [2] s/hes is unemployed ($E_i^* \leq 0$) and then $E_i^* = 0$. Yet this binary outcome is only observed if the individual has previously decided to participate in the labour market. That is, if [3]:

$$Z_i\gamma + e_{2i} > 0 \quad (\textit{selection equation}) \tag{2}$$

where Z_i is a vector of variables affecting the decision to participate in the labour market, γ is a vector of parameters to estimate; e_{2i} is a random variable with $e_{2i} \sim N(0,1)$ that captures unobserved characteristics affecting such decision. It is assumed that e_{1i}

and e_{2i} are jointly distributed and have correlation ρ. If $\rho \neq 0$, standard equation techniques applied to the employment equation will yield biased results. Using the Heckman *probit* method we can estimate the following log likelihood function[3]:

$$\text{Log L} = \Sigma_{\text{i: [1]}} \log \Phi_2 (X_i\beta, Z_i\gamma, \rho) + \Sigma_{\text{i: [2]}} \log \Phi_2 (Z_i\gamma, - X_i\beta, -\rho) + \Sigma_{\text{i: [3]}} \log \Phi (-Z_i\gamma) \quad (3)$$

where the numbers in [ ] refer to situations 1-3 described above, Φ_2 is the distribution function of the bivariate normal and Φ is the distribution function of the univariate normal distribution. As exclusion restrictions we use the number of children under the age of 15 living in the household, and the marital status of the individual.

Occupational attainment is defined as class attainment using the five-category Goldthorpe class schema on the assumption that this schema is capturing crucial differences in the employment relationship (see: Erikson and Goldthorpe 1993: 35-47). As Goldthorpe (2000) explains, amongst employees, these differences stem from differences in monitoring costs and in the specific human capital requirements of the different classes of jobs. Being in each of the structural positions defined by the class schema is expected to have consequential implications for both employment security and the structure of rewards and hence for individuals' life-chances. Determinants of occupying a certain class position are modelled as relative odds ratios in a multinomial choice process, assuming that classes are independent and unranked categories. Formally:

$$P\ (\text{Class}= j \mid X_i) = \frac{\exp(X_i\delta_j)}{1+ \sum_{j=1}^{5} \exp(X_i\delta_j)} \quad (4)$$

where X_i is the vector of explanatory variables affecting the relative probability of individual *i* to be in state j rather than in j=1 (which is the reference category), and δ_j

is a vector of parameter coefficients to estimate for each of the class positions considered. The reference category in our model is having an unskilled manual job (Goldthorpe's classes IIIb and VII condensed), so we will estimate the odds —relative to being employed in unskilled manual occupations— of having a job in the professional classes (I and II condensed), the intermediate classes (IIIa), being self-employed (IV) and being in the skilled manual class (V and VI condensed).

Finally, earnings are modelled using standard OLS regression techniques on the natural logarithm of gross hourly wages (Y). Hence:

$$Log(Y)= X_i\beta + e_i \quad (5)$$

where X_i is the vector of explanatory variables affecting earnings, β is the vector of parameters to be estimated and e_i is the error term, which is assumed to be normally distributed.

Different control variables will be used depending on data availability, which varies in relation to the processes analysed in each case. Age (centred) and its square term, educational level acquired (or recognised) in Denmark and the rate of unemployment of respondents' municipality will be controlled for in all models; whereas working experience (centred) and its squared term, firms' sector of activity[4] and type of ownership (private vs. public) will only be estimated in the occupational attainment and earnings' equations, as information on these latter variables is only registered for employed individuals. In the final earning models Goldthorpe's classes will also be introduced as an explanatory variable and this will allow us to assess the earning consequences of immigrant-native gaps in occupational attainment.

5. Findings

5.1. Participation and employment

Results on employment and participation probabilities using the aforementioned Heckman-*probit* selection method of estimation are shown in Table 1. Conditional on participation —and net of age, age squared, education and the rate of unemployment in respondents' municipality—, all immigrants show lower employment probabilities (i.e. higher unemployment risks) than native-born Danes —with the sole exception of those Western-migrant women who arrived after 1984. Employment probabilities are generally lower for non-Western immigrants and for those arriving after 1984. It is also worth noting that educational qualifications do not seem to reduce the native-immigrant gaps in employment chances substantially (estimation results without education controls available on request). The selection equation also shows significant differences in participation rates between native-born and immigrants. Participation gaps are larger than employment gaps with the exception of the Western migrants who arrived before 1985. Participation gaps are particularly large for non-western immigrants arriving after 1984, both men and women. Perhaps surprisingly, we do not observe large differences in the size of these gaps by gender. As in the case of employment, education does not seem to reduce native-immigrant gaps in participation substantially (results available on request). Lower employment and participation probabilities for immigrants seem to be across-the-board, which is a particular characteristic of the Danish case already noted by other researchers (see e.g. Liebig 2007: 5).

The last two columns of Table 1 show estimated employment probabilities using a standard *probit* model that does not account for selection into the labour market. Comparing the standard *probit* estimates to those obtained using the Heckman procedure we can observe that accounting for selection reduces the native-immigrant gaps in employment for non-Western immigrants, both men and women alike, as well

as for female immigrants who arrived after 1985 from Western countries. Selection effects suggest that if these two groups of immigrants increased their participation rate, their employment gaps vis-à-vis native-born Danes would actually be reduced – i.e. those currently out of the labour market would show a better employment performance (i.e. lower unemployment risks) than those currently active. The existence of negative selection into employment can be explained by the composition of immigration into Denmark, as a considerable fraction of immigrants in this country are highly educated refugees who do not participate in the labour market, probably for reasons linked to their refugee status.

[Table 1 about here]

Table 2 focuses on within-migrant differences in participation and employment probabilities for immigrants arriving after 1973. Five different arrival cohorts and different countries of origin are now distinguished. The employment equation shows significantly higher employment probabilities for those arriving between 1999 and 2001, conditional on being active. This is an interesting finding as the estimated parameter could be picking up the aforementioned activation policies, which were introduced after 1999 to increase the employment rates of recent arrivals. So there seems to be some indication that these policies could be having some impact in the desired direction, although it must be noted that participation rates are still the lowest amongst this group of most-recently arrived[5]. Other than that, differences in participation and employment between arrival-cohorts are very small.

In contrast, differences by country of origin are notable. Migrants from Western and EU-15 countries show significantly higher employment probabilities than immigrants from other parts of the world and this net of age, education and

unemployment rate of municipality. For men, the lowest employment probabilities (i.e. the higher unemployment risks) are found for Turkish, Somali, Lebanese, Moroccans and Pakistani. Conditional on participation, employment probabilities are generally higher for women. This is consistent with women's higher propensity to retract to inactivity rather than being unemployed. One particularly interesting group is Somali women, who show a substantially smaller employment gap than their male counterparts. Yet if we look at the selection equation estimates, we observe that participation rates are very low indeed for Somali, Afghan, Iranian, Lebanese, Pakistani and Moroccan women. Participation rates are also comparatively low for Somali, Afghan, Irani and Lebanese men. Refugee status seems clearly linked to lower participation and also lower employment probabilities. The standard *probit* estimates in the last column of Table 2 strengthen the interpretation of the selection process discussed above: The employment gap is considerably smaller once we condition on participation for the country of origin groups that are predominantly composed of refugees, such as Somalia, Iran, Afghanistan, and Lebanon, whereas the other immigrant groups are less affected. Selection effects suggest that if particular immigrants from refugee-sending countries increased their participation rate, their employment gap vis-à-vis native-born Danes would be reduced. Again, education does little in the way of reducing the within-immigrant differences in employment and participation gaps.

[Table 2 about here]

5.2. Occupational attainment

As explained above, occupational attainment is modelled as class attainment using Goldthorpe's class schema in its 5-category-condensed version. Results of the multinomial regression analysis on class attainment thus defined are shown in Table 3. In accordance with our expectations, and with the previous results regarding participation and employment probabilities, it is observed that native-immigrant gaps in class attainment are generally higher for non-Western immigrants, as well as for those arriving after 1985. For men, the highest native-immigrant gaps are found in the relative probabilities of having a job in the professional (I/II) and the intermediate (IIIa) classes relative to an unskilled job (IIIb/VIIa), whereas these gaps are smaller, although still significant, for the relative probability of having a skilled-manual (V/VI) rather than an unskilled job. Note that controlling for education increases the size of the male native-Western immigrant gaps in accessing classes I and II but reduces the gaps for all immigrants in accessing skilled manual work (relative to being employed in unskilled manual class). This latter finding is interpreted as an effect of the educational distribution. The proportion of male Western immigrants holding a high or intermediate tertiary degree is higher than that of Danes (approximately 30 per cent versus 18 per cent), whereas a higher proportion of Danish men hold the vocational qualifications leading to skilled-manual work (see Table 2a in appendix). On the whole, findings for men suggest that immigrants in Denmark face substantial barriers to accessing the good jobs available at each level of educational attainment.

[Table 3 about here]

Women's occupational structure differs from men's and so does the pattern of native-immigrant differences in class attainment. For women, penalties are only

observed in the case of non-Western immigrants' access to professional and intermediate classes. These penalties are large and increase further for those women arriving after 1985. Non-Western women who arrived to Denmark after 1985 show a particularly low access to professional and intermediate classes. Yet in contrast to the findings for men, we observe a higher propensity for all immigrant women (compared to Danes) to be employed in skilled manual classes (V/VI) rather than in unskilled jobs (IIIb/VIIa). We do not have a clear explanation for this latter finding.

Finally, it must also be noted that the probability of accessing self-employment relative to being employed in unskilled manual work is higher for both male and female immigrants of all origins when compared to their Danish counterparts. Self-employment can be a rational option for immigrants given that the Danish labour market seems to offer lower opportunities for immigrants' occupational attainment as wage-earners (see e.g. Andersson and Wadensjö 2004; Blume *et al.* 2004).

[Table 4 about here]

Table 4 shows that class attainment records improve over arrival-cohorts, particularly for classes I/II and IIIa and both for men and women alike. This could be interpreted as an indication of occupational assimilation over time, but only under the assumption that there are no differences in what Borjas (1985; 1995) called cohort 'quality'[6]. For men, the arrival-cohort effect is particularly marked for accessing intermediate and skilled-manual classes, whereas for women the cohort effects are also particularly noticeable for accessing intermediate positions (IIIa) but no cohort effect is observed for the skilled manual class. There are no cohort effects for either men or women for the relative probabilities of self-employment. Cohort effects in accessing professional classes exist but are less pronounced both for men and women. If arrival-

cohort effects were indeed the result of assimilation rather than unobserved differences in cohort 'quality', then we should conclude that assimilation into professional classes is not taken place with the same intensity as assimilation into the intermediate positions of the occupational structure.

Table 4 also shows that the chances that immigrant men are found in the professional classes rather than in unskilled jobs are particularly low for Somali, Moroccans and immigrants from other African countries, as well as for Yugoslavs. In the case of women, Pakistani, Turkish and Asian must be added to the list of 'underperforming' nationalities. Compared to EU-15, most migrant groups show, however, higher or similar probabilities of accessing skilled-manual work (vis-à-vis being employed in unskilled manual occupations), with the sole exception of African women who are significantly less likely to be in skilled jobs. This is probably due to the fact that very few EU-15 nationals migrate to Denmark to work in blue-collar occupations.

In sum, the analysis of class attainment shows that immigrants experience significant difficulties in gaining access to employment in professional and intermediate class positions. Such difficulties are greater for non-Western immigrants, which could be one of the reasons explaining why negative selection into employment has been observed in this group. Immigrant penalties in class attainment will obviously have implications for immigrants' earnings –as well as for their employment security and the opportunities for specific human capital accumulation. Moreover, since there is some degree of heterogeneity in the occupational categories that make up each 'class', it is possible that earning gaps between natives and immigrants might also be observed *within* each of the class categories. The impact of class on the native-immigrant pay gaps is addressed below.

5.3 Differences in pay

Table 5 reports the parameter estimates of three nested OLS regressions on logged-gross hourly earnings fitted separately by sex[7]. The first model controls for respondents' age and education, as well as for industry and firm's ownership. The second adds Goldthorpe's class schema and the third and final model introduces experience.

[Table 5 about here]

Model 1 presents the standard wage estimates net of education. It shows significant native-immigrant penalties for both men and women. These penalties are larger for non-Western immigrants and for the newly arrived, and also generally larger in men's models. The largest penalty is found for non-Western immigrants arriving after 1985. Men of these characteristics earn 17 per cent less per hour than their Danish male counterparts, whilst women earn 12 per cent less than their respective Danish female counterparts.

Class and experience are added in models 2 and 3. Controlling for class position practically halves the immigrant gaps, whilst controlling for both class and working experience turns all the gaps positive for women as well as for immigrant men arriving after 1985. The remaining negative gaps net of class and experience observed for men arriving before 1985 are very small indeed. These findings show that differences in pay between Danish and immigrants are *mainly* due to differences in class attainment and experience.

[Table 6 about here]

Table 6 presents the results of fitting wage models for immigrants arriving after 1973 only. Differences within the immigrant sample follow a very similar pattern to the one observed in previous analyses, with generally the same origin groups showing the

largest (smallest) gaps in relation to EU-15 immigrants. We also observe that those arriving before 1985 show lower earning gaps than those arriving after and that this is the case for men and women alike. Yet once occupational classes are controlled for, immigrant cohort gaps as well as most (but not all) country-of-origin gaps are considerably reduced. Introducing experience (but removing arrival-cohorts to avoid collinearity) reduces the origin gaps further, although more clearly so for men than for women. Net of class and experience, the largest earning gaps between immigrants are those found between Somali and EU-15 nationals (7 per cent less per hour worked for men and 9 per cent less for women).

In sum, earning equations presented in tables 5 and 6 suggest that the bulk of the observed differences in pay between native-born Danes and immigrants have to do with the differences in occupational attainment and experience accumulation analysed above. The connection between employment opportunities, class attainment and earnings is apparent.

6. Discussion

The current Danish economic model, commonly described by the term *flexicurity*, has emerged to be an attractive goal for researches and politicians in other Western countries (see e.g. Campbell and Pedersen, 2007; Esping-Andersen 1999: chap. VII; Gallie and Paugam 2000; OECD 2007). It has been argued that the combination of high levels of welfare provision, active employment policies, wage compression and low hiring and firing costs has produced a virtuous cycle leading to high participation rates, low unemployment, high-skilled equilibrium and high levels of income redistribution.

Yet it could be argued that some of the very institutional features that account for the Danish success might act as a barrier for the labour market integration of immigrants. The most common argument of this kind is that generous welfare provision

and high wage-compression reduce immigrants' incentives to participate in the labour market and to invest in their human capital development (see e.g. Kesler 2006; OECD 2002). Without ruling this possibility out, we have argued differently, by stressing that the high-specific-skill bias of the Danish labour demand could also push immigrants out of the labour market. Low levels of 'complementarity' between Danes and immigrants forces them to compete for the same vacancies. Immigrants face a disadvantage in this competition as they have significantly lower levels of vocational training acquired through schooling, lower language and culture-specific skills and also because transferability of their general skills is imperfect. Moreover, in the case of jobs requiring firm-specific skills, employers might consider investing in immigrants a more risky option, which could further reduce immigrants' chances of getting a 'good' job.

To be sure, these problems that immigrants face are not specific to the Danish context. What would be specific to Denmark, however, is the proportion of 'good' jobs relative to 'bad' jobs —i.e. the structure of labour demand. The high-skilled equilibrium achieved in Denmark could thus generate particular barriers for immigrants' integration in the labour market. In this context, generous welfare provision might shelter immigrants from the consequences of labour market disadvantage but at the price of enlarging participation, employment and thereby experience gaps between native-born and immigrants. The often-praised 'flexicurity' model generates its own challenges for the labour market integration of immigrants.

Obviously, this hypothesis linking labour market penalties to the skill-structure of demand cannot be confirmed nor rejected using only Danish cross-sectional data. The goal of our empirical analyses has been admittedly more descriptive. Yet the introduction of class attainment in the analyses has allowed us to account, however crudely, for the structure of labour demand. This has already had some analytical pay-offs, as it has been shown that the bulk of immigrant gaps in earnings can be explained

by the much-less studied processes of occupational attainment and experience accumulation.

Similarly productive in analytical terms has been the study of participation and employment decisions as jointly and sequentially determined processes. Such analysis has allowed us to identify the existence of negative selection into employment amongst immigrants, which has been interpreted as a reflection of the very high proportion of highly educated refugees within the immigrant population in Denmark. If these highly-educated refugees participated in the labour market in larger numbers, immigrant-native employment gaps would actually be reduced. Obviously, refugees are a very particular group of immigrants with very particular characteristics —including traumatic experiences in their home countries— and this must be taken into consideration when analysing their labour market performance. Yet in addition to those possibly specific supply-side characteristics, barriers at the demand-side also seem to play a crucial role. Our class-attainment analyses reveal that non-Western immigrants face significant barriers to accessing intermediate and professional occupations, which should be the preferred destination for highly educated refugees. Barriers to accessing high-skilled, high-specific jobs could act themselves as a further disincentive for participation.

Future research should focus on refining our measures of skill-specificity and on analysing job-matching processes in relation to such improved measures. Analysing access to highly specific skills seems crucial for the study of labour market stratification in general and of immigrant penalties, in particular.

Acknowledgements

The authors wish to thank the Danish National Institute for Social Research for granting access to the register data used in the empirical analyses of this paper.

Notes

[1] Figure 1a has been calculated using data from the second wave of the European Social Survey (ESS). The authors wish to thank the Norwegian Social Science Data Services (NSD) as the data archive and distributor of the ESS. The ESS Central Co-ordinating Team (CCT) and the producers bear no responsibility for the uses of the ESS data, or for interpretations or inferences based on these uses.

[2] Nordic nationals are nationals of Finland, Iceland, Norway and Sweden.

[3] We follow Barth and Ognedal (2005) in the presentation of our modelling strategy and use the 'heckprob' procedure in Stata 8.0 to estimate the model.

[4] The following nine industry values are distinguished: Agriculture; Manufacturing; Energy and Water; Construction; Trade and Hotel; Transport and communications; Finances; Public Administration & Service; and missing values.

[5] Liebig (2007:5) also argues that in addition to this positive impact on employment, the 2001 reform has also increased the risk of marginalisation for unemployed immigrants by reducing their social assistance. So the net effect of the reform is debatable.

[6] The 'quality' of different cohorts can differ either because of a different distribution of human capital upon arrival or due to survival bias. Survival bias occurs when exists from the sample are themselves linked to immigrants' human capital. For instance, if the most (least) successful immigrants return to their home countries or move on to other host societies, the remaining cohort will have *ceteris paribus* lower (higher) average human capital.

[7] The mean hourly wage (in Danish Kroner) for men is 202 (Danes), 198 (Old migrants), and 177 (New migrants); for women mean hourly wage is 159 (Danes), 162 (Old migrants), and 145 (New migrants).

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Table 1: Heckman selection, by gender

	Heckman				Probit	
	Employment equation		Selection equation		Employment	
	Men	Women	Men	Women	Men	Women
Danes (ref.)						
West-Old	0.832***	0.912***	0.863***	0.864***	0.844***	0.927***
Non West-Old	0.654***	0.723***	0.541***	0.555***	0.588***	0.603***
West-New	0.905***	0.987	0.597***	0.559***	0.899***	0.938***
Non West-New	0.597***	0.722***	0.340***	0.325***	0.519***	0.540***
Child<15 in HH			1.049***	0.731***		
Couple			1.485***	1.162***		
No. observations			278,261	273,078	215,448	187,901
No. censored obs.			62,813	85,177		
Rho			-0.379	-0.530		

* significant at 10%; ** significant at 5%; *** significant at 1%

Notes: Age, age squared, level of education and unemployment rate in municipality included as additional variables in all models. The sample used in the probit model only includes individuals who are active in the labour market. *Definition:* West-Old: Western migrants who arrived before 1985; Non West-Old: Non-Western migrants who arrived before 1985; West-New: Western migrants who arrived between 1985 and 2001; Non-West New: Non-Western migrants who arrived between 1985 and 2001.

Table 2: Heckman selection, by gender – Immigrants only

	Employment equation		Selection equation		Probit Employment	
	Men	**Women**	**Men**	**Women**	**Men**	**Women**
Arrival cohort						
1999-2001	1.205***	1.478***	0.460***	0.366***	1.006	1.046
1995-1998	0.894***	0.999	0.629***	0.548***	0.791***	0.787***
1990-1994	0.901***	0.945**	0.761***	0.717***	0.836***	0.811***
1985-1989	0.919***	0.952**	0.892***	0.893***	0.887***	0.892***
1974-1984 (ref.)						
Region of origin						
EU-15 (ref.)						
West	1.055	0.978	0.909***	1.037*	1.042	0.994
Eastern Europe	0.956	0.879***	0.807***	0.782***	0.922	0.833***
Poland	0.813***	0.808***	0.706***	0.829***	0.754***	0.764***
Yugoslavia	0.734***	0.734***	0.685***	0.688***	0.678***	0.638***
Morocco	0.674***	0.782***	0.640***	0.384***	0.611***	0.514***
Somalia	0.605***	0.911*	0.265***	0.215***	0.394***	0.369***
Afghan	0.802***	0.886*	0.345***	0.322***	0.604***	0.504***
Vietnam	0.759***	0.770***	0.720***	0.733***	0.703***	0.688***
Iran	0.749***	0.936	0.319***	0.256***	0.540***	0.459***
Iraq	0.729***	0.809***	0.530***	0.481***	0.625***	0.629***
Lebanon	0.620***	0.780***	0.300***	0.213***	0.441***	0.312***
Pakistan	0.682***	0.745***	0.685***	0.354***	0.631***	0.459***
Turkey	0.603***	0.637***	0.719***	0.514***	0.559***	0.476***
Asia	0.799***	0.820***	0.662***	0.754***	0.735***	0.755***
Africa	0.715***	0.798***	0.657***	0.647***	0.647***	0.686***
Rest	0.790***	0.789***	0.606***	0.681***	0.705***	0.694***
Child<15 in HH			1.069***	0.771***		
Couple			1.193***	1.058***		
No. observations			100,359	100,524	67,185	53,512
No. censored observations			33,174	47,012		
Rho			-0.606	-0.906		

* significant at 10%; ** significant at 5%; *** significant at 1%

Notes: see Table 1. Sample consists of immigrants who arrived after 1973. Eastern Europe includes: EU-27 countries that are not part of EU-15, the former Soviet Union, Russia, and Belarus.

Table 3: Class position, relative risk ratios

	(1)	(1-edu)	(2)	(2-edu)	(3)	(3-edu)	(4)	(4-edu)
Men	**I / II**	**I / II**	**IIIa**	**IIIa**	**IV a b c**	**IV a b c**	**V/ VI**	**V / VI**
Danes (ref.)								
West-Old	1.051	0.827***	1.035	0.920	1.015	1.012	0.736***	0.771***
Non West-Old	0.523***	0.555***	0.378***	0.442***	1.147***	1.234***	0.826***	0.981
West-New	1.200***	0.861***	0.820***	0.771***	1.700***	1.781***	0.613***	0.710***
Non West-New	0.434***	0.367***	0.305***	0.315***	1.071**	1.130***	0.791***	0.943***
Pseudo R2	0.171	0.243						
Women	**I / II**	**I / II**	**IIIa**	**IIIa**	**IV a b c**	**IV a b c**	**V/ VI**	**V / VI**
Danes (ref.)								
West-Old	1.313***	0.974	1.107***	1.027	1.319***	1.304***	1.048	1.097
Non West-Old	0.434***	0.419***	0.416***	0.463***	0.977	1.022	1.474***	1.516***
West-New	1.771***	1.241***	0.986	0.984	2.612***	2.659***	1.049	1.285***
Non West-New	0.335***	0.267***	0.255***	0.266***	1.337***	1.371***	1.330***	1.416***
Pseudo R2	0.138	0.273						

* significant at 10%; ** significant at 5%; *** significant at 1%

Notes: Reference outcome: IIIb, VIIa, VIIb. Age, age squared, industry dummies and unemployment rate in municipality included as additional variables in all models. Level of education included in specifications (1-edu) to (4-edu). Number of observations: 168,747 (men), 149,542 (women). Please refer to definition in Table 1.

Table 4: Class position, immigrants only, relative risk ratios

	(1)	(1-edu)	(2)	(2-edu)	(3)	(3-edu)	(4)	(4-edu)
Men	**I / II**	**I / II**	**IIIa**	**IIIa**	**IV a b c**	**IV a b c**	**V/ VI**	**V / VI**
Arrival cohort								
1999-2001	0.878**	0.750***	0.417***	0.384***	1.053	1.090	0.707***	0.733***
1995-1998	1.007	0.767***	0.797**	0.660***	1.144**	1.133*	0.976	0.990
1990-1994	0.921*	0.793***	0.787**	0.712***	0.986	0.990	0.968	0.985
1985-1989	0.923*	0.877***	0.874	0.835*	0.994	1.002	1.111**	1.120**
1974-1984 (ref.)								
Region of origin								
EU-15 (ref.)								
West	1.345***	1.256***	1.098	1.070	0.798***	0.807**	0.976	0.989
Other Europe	1.123	1.003	0.564***	0.539***	0.475***	0.485***	1.128	1.176
Poland	0.680***	0.616***	0.543***	0.511***	0.742**	0.754**	1.169	1.200*
Yugoslavia	0.185***	0.233***	0.440***	0.509***	0.594***	0.608***	1.616***	1.629***
Morocco	0.141***	0.157***	0.172***	0.195***	0.649***	0.688***	0.951	1.007
Somalia	0.129***	0.150***	0.342***	0.401***	0.119***	0.126***	0.915	0.965
Afghan	0.448***	0.435***	0.426***	0.447***	0.282***	0.288***	1.483***	1.534***
Vietnam	0.522***	0.601***	0.264***	0.296***	0.388***	0.390***	1.360***	1.344***
Iran	0.714***	0.743***	0.422***	0.453***	1.006	1.046	1.487***	1.571***
Irak	1.141**	1.033	0.702**	0.675***	0.647***	0.670***	1.075	1.155*
Lebanon	0.603***	0.718***	0.470***	0.555***	0.844	0.880	1.423***	1.477***
Pakistan	0.434***	0.559***	0.195***	0.229***	1.215**	1.300***	1.325***	1.400***
Turkey	0.372***	0.517***	0.144***	0.191***	0.783***	0.811***	1.520***	1.553***
Asia	0.353***	0.412***	0.314***	0.357***	0.605***	0.627***	1.065	1.096
Africa	0.207***	0.205***	0.340***	0.344***	0.412***	0.428***	0.774***	0.821***
Rest	0.403***	0.397***	0.615***	0.621***	0.547***	0.567***	0.875	0.910
Pseudo R2	0.212	0.242						
Women	**I / II**	**I / II**	**IIIa**	**IIIa**	**IV a b c**	**IV a b c**	**V/ VI**	**V / VI**
Arrival cohort								
1999-2001	0.698***	0.562***	0.330***	0.328***	1.259**	1.282**	0.844*	0.893
1995-1998	0.867***	0.642***	0.589***	0.530***	1.301***	1.271***	1.009	1.066
1990-1994	0.781***	0.665***	0.583***	0.564***	1.232**	1.231**	1.044	1.089
1985-1989	0.819***	0.754***	0.631***	0.612***	1.141	1.144	0.964	0.994
1974-1984 (ref.)								
Region of origin								
EU-15 (ref.)								
West	0.908**	0.885**	0.746***	0.752***	0.630***	0.633***	1.183	1.201
Other Europe	0.534***	0.440***	0.482***	0.439***	0.434***	0.431***	1.007	1.085
Poland	0.333***	0.330***	0.428***	0.412***	0.539***	0.539***	1.526***	1.653***
Yugoslavia	0.138***	0.211***	0.265***	0.314***	0.293***	0.313***	1.358***	1.383***
Morocco	0.067***	0.102***	0.078***	0.096***	1.070	1.157	0.893	0.923
Somalia	0.102***	0.171***	0.158***	0.211***	0.445**	0.493**	1.231	1.246
Afghan	0.290***	0.373***	0.391***	0.443***	0.462*	0.496	1.802	1.794
Vietnam	0.324***	0.514***	0.184***	0.233***	0.397***	0.433***	1.425***	1.412***
Iran	0.408***	0.487***	0.257***	0.285***	0.517***	0.559**	0.938	1.011
Irak	0.601***	0.580***	0.355***	0.358***	1.423**	1.465***	0.620**	0.714
Lebanon	0.355***	0.531***	0.563***	0.692**	1.084	1.160	0.544*	0.563
Pakistan	0.143***	0.225***	0.113***	0.143***	0.807	0.882	1.313	1.318
Turkey	0.076***	0.133***	0.064***	0.088***	0.467***	0.520***	2.191***	2.142***
Asia	0.140***	0.190***	0.178***	0.208***	0.486***	0.519***	1.402***	1.410***
Africa	0.122***	0.162***	0.135***	0.151***	0.408***	0.428***	0.635***	0.651***
Rest	0.285***	0.300***	0.338***	0.345***	0.345***	0.356***	0.814	0.861
Pseudo R2	0.216	0.272						

* significant at 10%; ** significant at 5%; *** significant at 1%

Notes: see Table 3. Sample consists of immigrants who arrived after 1973. Eastern Europe includes: EU-27 countries that are not part of EU-15, the former Soviet Union, Russia, and Belarus. Number of observations: 47,397 (men), 37,694 (women).

Table 5: Wage equations by gender, coefficients

	Men			Women		
	(1)	**(2)**	**(3)**	**(1)**	**(2)**	**(3)**
Age	0.010***	0.010***	0.003***	0.008***	0.007***	0.002***
Age 2 / 100	-0.063***	-0.059***	-0.047***	-0.041***	-0.035***	-0.026***
Danes (ref.)						
West-Old	-0.043***	-0.031***	-0.010***	-0.007**	0.002	0.021***
Non West-Old	-0.128***	-0.079***	-0.037***	-0.058***	-0.027***	0.010***
West-New	-0.067***	-0.040***	0.066***	-0.034***	0.006	0.080***
Non West-New	-0.169***	-0.102***	0.008***	-0.107***	-0.064***	0.022***
Education						
Lower sec.(ref.)						
Upper sec.-general	0.136***	0.071***	0.094***	0.103***	0.043***	0.054***
Upper sec.-voc.	0.121***	0.096***	0.092***	0.091***	0.070***	0.061***
Lower tertiary	0.200***	0.104***	0.117***	0.191***	0.088***	0.092***
Intermediate tertiary	0.305***	0.129***	0.150***	0.264***	0.109***	0.118***
Higher tertiary	0.473***	0.296***	0.336***	0.479***	0.333***	0.366***
Missing/ incomplete	0.122***	0.091***	0.119***	0.083***	0.065***	0.086***
EGP						
I / II (ref.)						
IIIa		-0.186***	-0.180***		-0.141***	-0.136***
IV a, b, c		-0.223***	-0.217***		-0.147***	-0.131***
V / VI		-0.291***	-0.289***		-0.204***	-0.189***
IIIb, VII a, b		-0.289***	-0.281***		-0.225***	-0.209***
Experience			0.013***			0.011***
Experience2 / 100			-0.026***			-0.020***
Constant	5.184***	5.437***	5.346***	4.997***	5.179***	5.116***
Observations	153,655	135,407	135,407	135,767	122,165	122,165
R-squared	0.270	0.358	0.375	0.251	0.346	0.366

* significant at 10%; ** significant at 5%; *** significant at 1%

Notes: Industry dummies and dummy for public sector included in all wage equations. Please refer to definition in Table 1.

Table 6: Wage equations by gender, coefficients – immigrants only

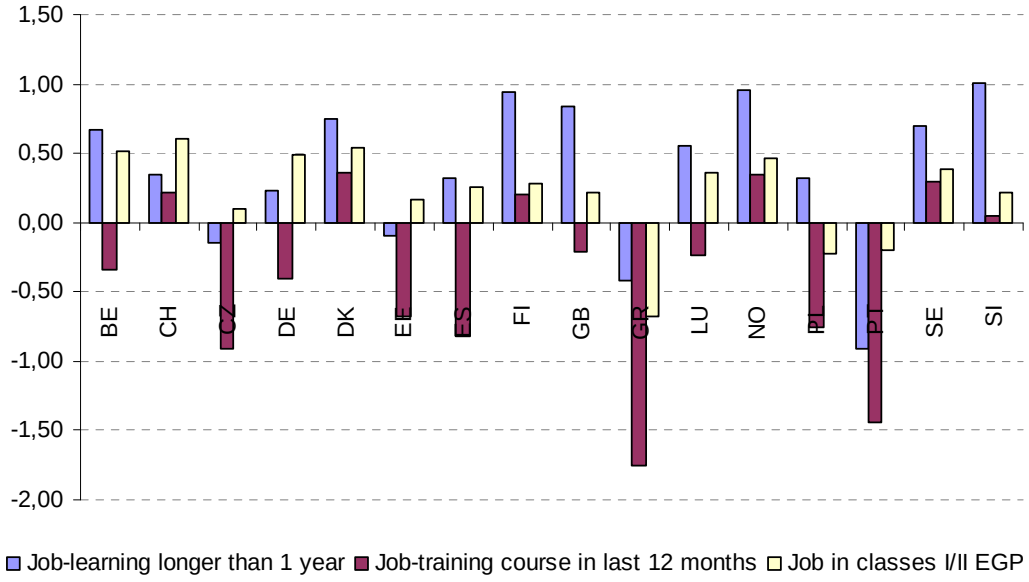
	Men			Women		
	(1)	(2)	(3)	(1)	(2)	(3)
Age	0.004***	0.005***	0.001***	0.002***	0.004***	0.002***
Age2/ 100	-0.042***	-0.037***	-0.025***	-0.036***	-0.027***	-0.031***
Arrival cohort						
1999-2001	-0.054***	-0.031***		-0.077***	-0.016**	
1995-1998	-0.062***	-0.038***		-0.080***	-0.046***	
1990-1994	-0.039***	-0.017***		-0.065***	-0.034***	
1985-1989	-0.039***	-0.022***		-0.043***	-0.020***	
1974-1984 (ref.)						
Region of origin						
EU-15 (ref.)						
West	0.059***	0.013**	0.003	0.048***	-0.001	0.021***
Other Europe	-0.032***	-0.014	-0.026***	-0.056***	-0.055***	-0.001
Poland	-0.055***	-0.045***	-0.056***	-0.074***	-0.067***	-0.046***
Yugoslavia	-0.134***	-0.081***	-0.058***	-0.096***	-0.078***	-0.065***
Morocco	-0.148***	-0.077***	-0.038**	-0.097***	-0.046***	-0.071***
Somalia	-0.203***	-0.132***	-0.069***	-0.126***	-0.093***	-0.087***
Afghan	-0.213***	-0.133***	-0.020	-0.090***	-0.056*	-0.078***
Vietnam	-0.110***	-0.067***	-0.021**	-0.059***	-0.036***	-0.066***
Iran	-0.147***	-0.088***	-0.020	-0.065***	-0.062***	-0.046***
Irak	-0.093***	-0.105***	-0.063***	-0.081***	-0.097***	-0.076***
Lebanon	-0.141***	-0.101***	-0.067***	-0.098***	-0.094***	-0.073***
Pakistan	-0.124***	-0.045***	-0.026**	-0.098***	-0.047***	-0.034***
Turkey	-0.129***	-0.061***	-0.044***	-0.099***	-0.054***	-0.061***
Asia	-0.129***	-0.083***	-0.050***	-0.094***	-0.066***	-0.077***
Africa	-0.134***	-0.082***	-0.043***	-0.094***	-0.063***	-0.065***
Rest	-0.098***	-0.061***	-0.038***	-0.078***	-0.060***	-0.045***
Education						
Lower sec.(ref.)						
Upper sec.-general	0.031***	0.011*	0.012*	0.043***	0.008	0.020***
Upper sec.-voc.	0.062***	0.047***	0.036***	0.051***	0.045***	0.046***
Lower tertiary	0.090***	0.019***	0.045***	0.122***	0.046***	0.025***
Intermediate tertiary	0.162***	0.020***	0.058***	0.190***	0.060***	0.028***
Higher tertiary	0.303***	0.148***	0.219***	0.337***	0.210***	0.159***
Missing/ incomplete	0.062***	0.045***	0.060***	0.037***	0.029***	0.070***
EGP						
I / II (ref.)						
IIIa		-0.253***	-0.188***		-0.193***	-0.252***
IV a, b, c		-0.340***	-0.250***		-0.266***	-0.336***
V / VI		-0.351***	-0.247***		-0.257***	-0.351***
IIIb, VII a, b		-0.349***	-0.259***		-0.270***	-0.345***
Experience			0.012***			0.011***
Experience2 / 100			-0.052***			-0.044***
Constant	5.361***	5.614***	5.340***	5.162***	5.351***	5.595***
Observations	42,213	36,010	28670	33,648	28,670	36010
R-squared	0.188	0.320	0.334	0.171	0.313	0.335

* significant at 10%; ** significant at 5%; *** significant at 1%

Notes: Industry dummies and dummy for public sector included in all wage equations. Sample consists of immigrants who arrived after 1973. Eastern Europe includes EU-27 countries that are not part of EU-15, the former Soviet Union, Russia, and Belarus.

Appendix

Figure 1a. Job-Specific Skill Structure in Selected Countries:
Country Logit Coefficients for the Probability of Being in Jobs that Require Learning Periods Longer than 1 Year, Attending a Job-Training Course in the Last 12 Months and Being Employed in Professional Occupations



Notes: Reference Category is Austria.

N=33,760 for the job-learning-period model; N= 34,088 for the job-training-course model; N= 29,730 for the professional-class-attainment model.

Source: Authors' own elaboration from European Social Survey (2004)

Table 1a: Descriptive statistics of sample used in employment/activity regression

	Men						Women					
	Danes		Old migrants		New migrants		Danes		Old migrants		New migrants	
	mean	sd	mean	sd	mean	sd	mean	sd	mean	sd	mean	sd
Age	40,7	13,4	49,0	9,8	35,7	10,2	41,1	13,4	49,1	9,6	34,8	10,2
Work experience (Denmark)	16,1	11,4	14,7	10,2	3,1	3,5	13,5	9,9	11,9	9,4	2,0	2,9
Unemployment rate in municipality	5,2	1,5	5,1	1,2	5,2	1,2	5,1	1,5	5,0	1,3	5,2	1,3
	percent		percent		percent		percent		percent		percent	
Employed	82%		65%		58%		76%		57%		45%	
Active	85%		71%		65%		80%		63%		51%	
Child<15 in household	26%		31%		41%		30%		27%		51%	
Couple	48%		70%		61%		52%		68%		69%	
Education												
Lower secondary	31%		30%		26%		33%		30%		31%	
Upper secondary-general	7%		7%		11%		9%		7%		12%	
Upper secondary-vocational	39%		31%		23%		32%		27%		19%	
Lower tertiary	4%		6%		6%		4%		6%		4%	
Intermediate tertiary	9%		11%		8%		16%		14%		8%	
Higher tertiary	6%		9%		7%		4%		6%		5%	
Missing / incomplete	3%		7%		19%		3%		10%		20%	
Arrival cohort												
1999-2001	-		-		22%		-		-		25%	
1995-1998	-		-		30%		-		-		32%	
1990-1994	-		-		22%		-		-		24%	
1985-1989	-		-		26%		-		-		20%	
1973-1984	-		56%		-		-		55%		0%	
<1973	-		44%		-		-		45%		0%	
Western countries	-		40%		23%		-		46%		18%	
Non-Western countries	-		60%		77%		-		54%		82%	
Number of observations	159,758		35,701		82,802		155,522		33,822		83,734	

Table 2a: Distribution of class position and education- sample used for occupational attainment models

	Men					Women				
	Danes	Migrants				Danes	Migrants			
		West Old	Non-West Old	West New	Non-West New		West Old	Non-West Old	West New	Non-West New
EGP										
I / II	35%	49%	30%	44%	22%	40%	50%	28%	50%	20%
IIIa	4%	4%	2%	4%	2%	13%	12%	8%	10%	5%
IV a, b, c	8%	8%	10%	12%	8%	3%	4%	4%	6%	5%
V / VI	32%	22%	34%	19%	37%	6%	4%	11%	5%	13%
IIIb / VII a, b	21%	17%	24%	21%	32%	38%	29%	49%	29%	58%
Education										
Lower secondary	26%	13%	37%	8%	31%	24%	16%	32%	8%	32%
Upper 2ndry-general	7%	5%	7%	8%	11%	10%	6%	9%	11%	13%
Upper 2ndry-vocational	43%	41%	26%	30%	26%	36%	33%	26%	23%	26%
Lower tertiary	5%	7%	5%	7%	6%	4%	8%	5%	8%	5%
Intermediate tertiary	11%	17%	9%	13%	9%	21%	27%	13%	19%	10%
Higher tertiary	7%	15%	7%	16%	6%	5%	9%	6%	13%	5%
Missing / incomplete	1%	2%	8%	18%	12%	1%	2%	10%	19%	9%
Number of observations	112,037	8,771	10,874	10,556	26,509	103,776	8,816	7,585	7,552	21,813

Note: The distribution of EGP remains the same when only looking at individuals with valid information on education.