

## PART IV

# Naturalisation and the Labour Market Integration of Immigrants<sup>1</sup>

## Key findings

This chapter takes stock of the available evidence on immigrants' take-up of the host-country nationality and its link to labour market outcomes. Among the key findings are the following:

- Take-up of citizenship varies greatly among immigrants in OECD countries. In countries that have been settled by migration, virtually all (regular) immigrants naturalise within ten years after arrival. Among European OECD countries, citizenship take-up is highest in Sweden and the Netherlands, and lowest in Luxembourg and Switzerland.
- The share of long-term resident immigrants who have taken up the nationality of the host countries appears to have increased in European OECD countries over the past decade. This is particularly evident in Belgium and Sweden, where there have been large increases for immigrants from non-OECD countries, following a liberalisation of access to citizenship.
- Naturalisation rates of migrants differ among migrant groups. In almost all countries, immigrants from lower-income countries are more likely to naturalise than immigrants from high-income OECD countries. Citizenship take-up tends to be highest among immigrants from African countries.
- Immigrant women are more likely to have the host-country nationality than men. Likewise, immigrants with a tertiary degree are more likely to have the host-country nationality than immigrants of lower attainment levels.
- Immigrants who have naturalised tend to have better labour market outcomes, particularly when they come from lower-income countries. On average for the OECD countries for which data are available, employment rates of naturalised immigrant men from low-income countries are 12 percentage points higher than for those who have not naturalised. For women, the difference is even greater (14 percentage points). In both cases, the differences are calculated for immigrants with at least ten years of residence.
- While immigrants who naturalise already tend to have better labour market outcomes prior to naturalisation, there is an additional improvement following naturalisation which suggests that it has, by itself, an impact on immigrants' labour market outcomes. Naturalisation notably seems to promote immigrants' access to better-paid jobs.
- Naturalisation appears to improve immigrants' labour market outcomes through various channels, including a reduction of labour market barriers, increased mobility and reduced discrimination.
- One sector where naturalisation improves immigrants' chances to be employed is the public sector. Nevertheless, in most countries even naturalised immigrants remain largely underrepresented in the public sector.

## Introduction

Access to the host-country nationality is an important element of integration policy. It provides immigrants with the full range of rights and duties that host-country nationals enjoy. By legally entitling immigrants to full participation and membership in the host-country society, the acquisition of nationality is generally seen as a manifestation of “belonging” to the host country.

In recent years, there has been a renewed interest in the impact of this process on the broader issue of immigrants’ socio-economic integration, for a number of reasons. First, in many OECD countries immigrant populations have grown significantly over the past decade, with a number of countries having emerged as new destinations for immigration. The fact that a large proportion of recent immigrants have settled for good in destination countries almost inevitably raises the question of their access to the citizenship of the host country.<sup>2</sup> The issue is also of importance in the context of the role that labour migration is expected to play in helping to fill, in conjunction with other policies, the shortfall in labour supply in many countries as a result of the retiring of baby-boomers and of the fact that fewer young people are entering the labour markets. Access to citizenship can be expected to play a role in the capacity of host countries to attract and retain immigrants.

Gaining access to the host-country nationality is also seen by many as promoting immigrants’ identification with the host country. In line with this view, many OECD countries have recently strengthened the role of access to citizenship in the overall integration policy mix, for example by providing host-country nationality in the framework of formal citizenship ceremonies.

The OECD countries that have been settled by immigration (Australia, Canada, New Zealand and the United States) have traditionally favoured a relatively quick access to citizenship for new arrivals, by providing permanent residence status for all new, non-temporary migrants upon arrival and by combining this with short required residence periods until naturalisation is possible. This approach to citizenship is generally considered part of the national heritage. Australia, for example, has since 1949 held large-scale citizenship ceremonies on Australia’s National Day (26 January), and actively encourages migrants to take-up Australian citizenship (see OECD, 2007).

Likewise, some European OECD countries, such as Belgium, have liberalised their citizenship policy in recent years with the objective of promoting immigrants’ integration into the labour market and society as a whole.<sup>3</sup> Indeed, a key observation from the OECD reviews on the labour market integration of immigrants (OECD 2008b, 2007) has been that immigrants with the host-country nationality often tend to have better labour market outcomes than foreign-born foreigners.<sup>4</sup> However, little is known about the driving factors behind the observed link between host-country nationality and immigrants’ integration.

The perhaps most controversial question in the political discussion about host-country citizenship is whether it should be an instrument for enhancing integration or rather a certification of a successful integration process. A simple look at the citizenship laws across countries demonstrates that the answer is not straightforward. On the one hand, immigrants have to fulfil a number of requirements *ex ante* which are related to the issue of integration before immigrants are allowed to take-up host-country nationality. On the other hand, as will be seen below, citizenship take-up can accelerate the integration process *ex post*.

This chapter takes stock of the available evidence on immigrant take-up of the host-country nationality and its links with labour market outcomes. It seeks to shed some light on the following key questions: First, how do naturalised immigrants fare in the labour market compared with their counterparts who have not taken up the nationality of their host countries? Second, for those migrants for whom better outcomes are observed, is it because they were already better integrated prior to naturalisation or do the improvements materialise after naturalisation? Third, if outcomes improve after naturalisation, why is this the case?

### **The definition of “naturalisation”**

The acquisition of nationality may occur automatic (mainly at birth) or upon application. Naturalisation is generally understood as the non-automatic acquisition of citizenship by an individual who was not a citizen of that country when he or she was born. It requires an application by the immigrant and an act of granting by the host country.<sup>5</sup> In a more narrow sense, naturalisation does not refer to cases in which an individual receives another citizenship by declaration or automatic acquisition (e.g. through marriage, birth, or upon becoming an adult).<sup>6</sup> Whereas citizenship acquisition at birth or upon adulthood generally refers only to native-born children of immigrants, citizenship acquisition through marriage is an important and frequently used way by which foreign-born persons obtain the nationality of the host country. For example, in 2008 in Germany, 21% of all citizenship acquisitions were attributable to marriage or an extension to relatives.<sup>7</sup> Similar relations are found in Switzerland, where almost 18% of all citizenship acquisitions took place via so-called simplified naturalisation procedures, which apply in the case of marriage and for children of Swiss citizens (Steinhardt *et al.*, 2009). Likewise, in the United Kingdom, 22% of all citizenships were granted on the basis of marriage (Home Office, 2009).

Ideally, one would like to distinguish between “naturalisation” as defined above and other forms of citizenship take-up which are automatic. This would allow one to better capture the different ways by which having the host-country nationality affects immigrants’ integration. In practice, it is generally not possible to identify the way by which immigrants have obtained host-country nationality. In administrative data sets the identification of immigrants who have acquired the host-country nationality often tends to be difficult, because such data sources normally do not include any information on acquisition of citizenship. Labour Force Survey data, on the other hand, contain information on the respondents’ citizenship and country of birth, but generally not how nationality was acquired. Indeed, even in longitudinal studies which follow immigrants over time, it is generally only possible to identify immigrants’ citizenship take-up, but not to distinguish between the different ways of obtaining citizenship.<sup>8</sup> Because of these obstacles, empirical studies are generally based on a broader definition of naturalisation – including all foreigners who have obtained the citizenship of the host country.

Where one has to rely on labour force survey data, such as in the internationally comparative empirical analysis below, “naturalised” immigrants are defined as foreign-born persons who have the citizenship of the host country. This group includes foreign-born persons who already had the host-country nationality prior to entry into the host country, such as notably the foreign-born children of expatriates. In most countries included in the empirical analysis below, this group tends to be small, with the exception of France which had large-scale return migration of former emigrants and their children

following the independence of its former colonies. The French Labour Force Survey has a question on the nationality at birth. For France, foreign-born persons who had French nationality at birth have therefore been excluded from the analysis.

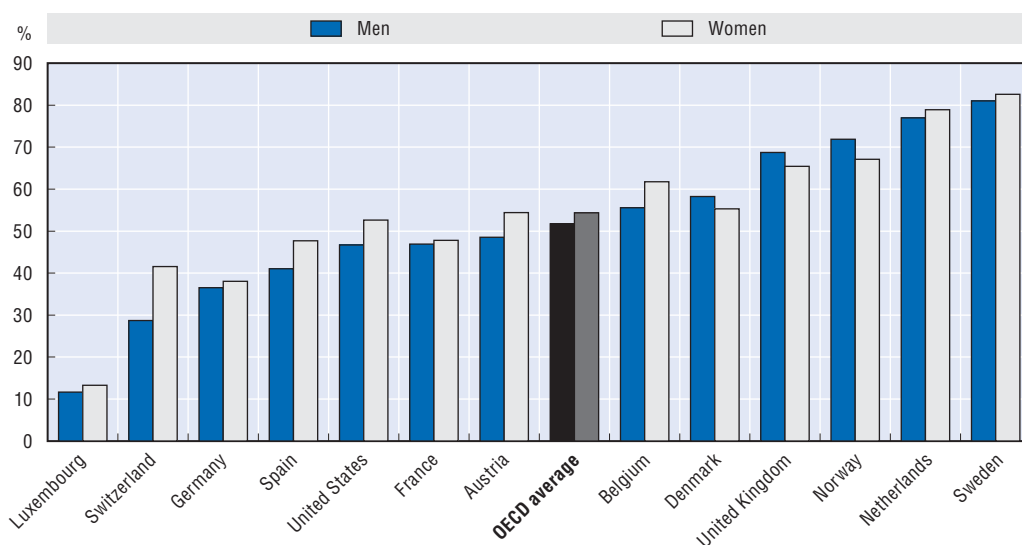
## 1. Citizenship take-up among immigrants: An overview across selected OECD countries

This section provides an overview of immigrants' citizenship take-up across the OECD and the socio-demographic characteristics of naturalised vs. non-naturalised immigrants. It is important to keep in mind that immigrants generally need to have been resident in the host country for a number of years before they can naturalise. In most OECD countries, citizenship take-up is possible after about five to eight years. Since the objective is to compare naturalised immigrants with non-naturalised immigrants who are also eligible for acquiring citizenship, the empirical analysis below is limited to immigrants with ten or more years of residence.<sup>9</sup> There are no data available for Australia, Canada and New Zealand, three countries which have been settled by immigration and where the vast majority of immigrants take-up host-country nationality in the first five to ten years after arrival. In addition, only OECD countries in which the share of immigrants was 5% or above at the time of the 2000 census are included. Portugal and Greece have been excluded from this group because the available data does not allow one to identify foreign-born children of expatriates. This group is sizeable in both countries and tends to resemble, in their labour market outcomes, more closely the native-born populations than other immigrants (see OECD, 2008b). Since the focus of interest is on the link between naturalisation and labour force characteristics, the analysis below is furthermore limited to immigrants aged 15 to 64 who are not attending an educational institution.

As Figure IV.1 shows, there is wide variation across the OECD in the percentage of immigrants who have naturalised. The largest share of naturalised immigrants can be found in Sweden, where 81% of immigrant men and 83% of immigrant women are naturalised. At the other end of the spectrum is Luxembourg, where only about 12% of immigrant men and 13% of immigrant women have obtained the nationality of the host country.

On average across the OECD, a little more than half of all immigrant men are naturalised. Among women, the percentage is higher in all countries with the exception of Denmark, Norway and the United Kingdom. The fact that women are generally more often naturalised could be partly linked with the fact that they are overrepresented among those who migrated because of marriage to a citizen. As mentioned above, a facilitated naturalisation procedure generally applies for this group.

There are fewer labour market restrictions for immigrants from high-income OECD countries (notably within areas of free movement such as the European Union). Insofar as it reduces barriers in the labour market, naturalisation tends to be more beneficial for immigrants from lower-income countries (see Bevelander and DeVoretz, 2008). In addition, immigrants from high-income countries are more prone to return migration (OECD, 2008a), which may prevent them from taking the host-country nationality if they have to give up their original nationality. Indeed, the loss of the original nationality tends to be associated with higher costs (in terms of forgone opportunities) for migrants from high-income countries than for immigrants from lower-income countries. One would thus expect that immigrants from lower-income countries are more likely to take-up host-country citizenship. Table IV.1 shows that the observed naturalisation rates – that is, the share of

Figure IV.1. **Share of foreign-born who have the host-country nationality, selected OECD countries, by gender, around 2007**

Note: Data are limited to immigrants aged 15 to 64 who are not in education and who have been resident in the host country for ten years or more. The OECD average is the unweighted average of all countries included in the chart.

Source: See Methodological Annex.


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Table IV.1. **Naturalisation rates (%) by origin, around 2007**

Country	Total	High-income OECD countries	Non-EU/EFTA European countries	Central and South America and Caribbean	East and South-East Asia	North Africa and Near Middle East	Other African countries
Austria	52	<b>56</b>	45	(58)	72	<b>86</b>	<b>73</b>
Belgium	59	37	<b>78</b>	<b>74</b>	<b>79</b>	<b>77</b>	<b>83</b>
Switzerland	35	35	27	<b>63</b>	<b>44</b>	<b>64</b>	<b>46</b>
Germany	37	35	29	40	37	<b>48</b>	..
Denmark	57	49	41	..	64	<b>65</b>	..
Spain	44	46	25	<b>60</b>	32	26	29
France	47	36	40	<b>59</b>	<b>87</b>	<b>50</b>	<b>55</b>
Luxembourg	12	11	..	..	(35)	..	(33)
Netherlands	78	55	74	<b>96</b>	<b>90</b>	75	82
Norway	70	47	<b>84</b>	77	<b>90</b>	<b>99</b>	<b>96</b>
Sweden	82	65	<b>94</b>	<b>87</b>	<b>91</b>	<b>97</b>	<b>96</b>
United Kingdom	67	44	59	<b>73</b>	<b>79</b>	<b>75</b>	<b>81</b>
United States	50	47	<b>78</b>	40	<b>65</b>	<b>80</b>	<b>60</b>
OECD average	56	46	57	<b>66</b>	<b>70</b>	<b>71</b>	<b>70</b>

Note: The data refer to immigrants aged 15-64, not in education and with at least ten years of residence. “..”: value does not exceed the reliability limit for publication. Values in parentheses are of limited reliability. OECD average: unweighted average of the countries in the table, except Denmark and Luxembourg because of insignificant values in some categories. Figures in bold indicate that the naturalisation rate of this group is higher than the naturalisation rate of all other migrants, figures in italics indicate that the naturalisation rate of this group is lower than the naturalisation rate of all other migrants. In all other cases, the differences with other migrant groups are not significant at the 5% level.

Source: See Methodological Annex.

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immigrants who have naturalised – generally follow the expected pattern. Immigrants from high-income OECD countries are less often naturalised than the average immigrant. While on average for the OECD as a whole 56% of immigrants are naturalised, the share of naturalised immigrants from high-income OECD countries is only 46%. The only country in which the share of naturalised is higher among immigrants from high-income OECD countries is Austria.

Immigrants from Africa and Asia tend to have the highest naturalisation rates. On average, the naturalisation rates for these groups are about 14 percentage points higher than for immigrants as a whole. This seems to be due to the fact that migrants from these countries are often refugees and their families, for whom return migration is not an option. While this is less the case for migrants from Northern Africa, these are nevertheless one of the most disfavoured groups in the labour market. Spain is an exception to the observed pattern. The only group in Spain which has significantly higher naturalisation rates are migrants from Central and South America. Because of their historical, cultural and linguistic ties with Spain, this group has often benefited from facilitated access to Spanish citizenship. The low naturalisation rates of immigrants from Africa in Spain seems to be attributable to the fact that immigrants from these countries were often labour migrants who initially arrived through irregular channels, and often may not have had acquired a sufficient number years of legal residence to get naturalised.

There is some evidence that citizenship take-up has increased recently, notably for immigrants from lower-income countries. Table IV.2 compares the percentages of long-term resident immigrants (more than ten years of residence) who have the host-country nationality, for the limited number of countries for which this information is available, currently and about ten years ago. In Belgium and Sweden, there have been large increases for immigrants from non-EU countries, following the introduction of measures to liberalise access to citizenship and/or facilitations for dual nationality (see Box IV.1). Small increases are also observed in the Netherlands, Norway and the United Kingdom. The reverse is true for Denmark, which has recently tightened access to Danish citizenship.

**Table IV.2. Percentage of foreign-born who have the nationality of the host country, 1999/2000 and 2007/2008, by region of origin, selected European OECD countries**

Country	All immigrants 1999/2000	All immigrants 2007/2008	Immigrants from EU countries 1999/2000	Immigrants from EU countries 2007/2008	Immigrants from non-EU countries 1999/2000	Immigrants from non-EU countries 2007/2008
Austria	52	52	66	56	48	49
Belgium	40	59	33	37	48	78
Denmark	64	57	65	46	64	61
Luxembourg	13	12	11	11	29	25
Netherlands	75	78	51	53	81	84
Norway	68	70	47	46	80	85
Sweden	71	82	61	65	79	93
United Kingdom	65	67	40	42	74	76
OECD average	56	59	47	45	63	69

Note: Because of data limitations, for 1999/2000 “EU” refers to the EU15, whereas the data for 2007/2008 refer to the EU27 and the EFTA. Results refer to immigrants aged 15-64, not in education and with ten or more years of residence. Source: European Community Labour Force Survey.

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### Box IV.1. Dual citizenship

A special aspect of naturalisation is dual citizenship. When migrants naturalise, they are either obliged to renounce or allowed to retain their former citizenship, which leads to either a single or dual citizenship in the host country. Dual citizenship may also arise due to *ius sanguinis*, as a child born to parents of non-identical citizenships, or by the combination of *ius sanguinis* and *ius solis*, where the person receives both the parents' citizenship and that of the country of birth. Less frequent are the application of *ius matrimonii*, under which persons automatically receive the citizenship of their spouse upon marriage and the reacquisition of citizenship by ethnic minorities migrating to the country of their ancestors, a special case of *ius sanguinis*.

Dual citizenship generally implies reciprocal recognition. Both the destination and the origin country must allow dual citizenship. Where dual citizenship is not permitted, anyone applying for citizenship in another country automatically loses the original citizenship (e.g. in Japan), at least in principle, or the renunciation of the former citizenship is a requirement to obtain the passport in the host country (e.g. in Germany; renunciation can also be requested in Italy). If, however, the person has involuntarily acquired dual citizenship, such as in the case of *ius solis*, or as a child of parents with two different citizenships, dual citizenship is generally allowed until the age of majority. Within the European Union, citizens of one EU member state are generally allowed to hold the citizenship of another member state; this, however, does not necessarily apply to citizenship of third countries.

In recent years, an increasing number of countries have eased their regulations on dual citizenship, albeit there remains substantial cross-country variation. Differences can be seen with respect to both the acquisition of a second citizenship by a national of the host country and acquisition of host-country citizenship by immigrants.

Many OECD countries allow both immigrants and emigrants who naturalise abroad to keep the citizenship of the origin country, especially countries with a long history of immigration, such as the United States, Canada, the United Kingdom and France. Other countries have also recently liberalised their citizenship laws to allow multiple citizenship. Examples are Sweden (2001), Australia (2002), Finland (2003) and Belgium (2008). Other countries maintain restrictions on dual citizenship but increasingly admit some flexibility, such as Austria and Germany. Exceptions in the regulation of non-tolerating countries have been growing e.g. in cases when release from the former citizenship is refused or is coupled with prohibitive conditions, or when the applicant can argue that he or she would incur a loss of property, etc. The Netherlands made access to dual nationality more restrictive in 1997, but in practice the majority of immigrants still keep their original nationality (van Oers *et al.*, 2006). More generally, the *de facto* tolerance of dual citizenship may often differ from the *de iure* situation. People may keep both passports even when required to renounce one, particularly where there is no bilateral administrative verification, which is generally the case.

The debate over whether or not to permit dual citizenship when naturalising is extensive and multidisciplinary. Legal concerns are primarily potential administrative conflicts caused by dual citizenship, especially concerning military conscription and, in some cases, tax liability. Multi- and bilateral agreements may address these concerns. Socio-political and cultural discussions relate to issues such as multiple voting rights or the impact on "loyalty" and migrant networks, whereas the main economic concern is whether integration is fostered or hampered by the acquisition of a second citizenship. In spite of this ongoing debate, as seen above, the overall trend is in practice towards tolerating multiple citizenships (see e.g. Brøndsted Sejersen, 2008; Blatter *et al.*, 2009).

**Box IV.1. Dual citizenship (cont.)**

One would *a priori* expect that social and economic integration would tend to be favoured, as the right to hold dual citizenship tends to lower the cost of naturalisation. Nevertheless, for those migrants who would have naturalised anyway (*i.e.* without the option of dual nationality) it is also possible that dual citizenship rights could increase return migration, and the option might in turn affect their human capital investment. On the other hand, dual citizenship may be perceived as a way for the host countries to attract and retain migrants, particularly those who are highly-skilled. The extent to which this is the case is not known.

Data on dual citizenship status are scarce and empirical evidence on the effects of dual citizenship is thus rare. The scarce empirical studies deal with the political integration of dual citizens (Staton *et al.*, 2007) or other social aspects (Bloemraad 2004). The results provide a rather mixed picture. In the latter study, dual citizenship was negatively correlated with ties to the host country (Canada), but at the same time a strong positive correlation between dual citizenship and the level of education was observed. Staton *et al.* (2007) observed a lack of “political connectedness” of Latino dual citizens to the United States, as measured by self-identification as “Americans” and electoral participation, among others. This has to be weighed against the fact that facilitated access to dual nationality tends to increase naturalisation. Increased naturalisation rates when dual citizenship was introduced were observed in the US for immigrants from Latin America and in the Netherlands (Mazzolari, 2009; Bevelander and Veenman, 2008; OECD, 2008b).

In summary, to the degree that it enhances the propensity to naturalise which in turn is associated with better outcomes, the overall balance of dual citizenship appears to be positive, at least in economic terms.

Access to host-country citizenship tends to be selective, not only because migrants have to decide whether or not they apply for it, but also because host countries often impose some criteria, such as mastery of the host-country language or self-sufficiency. Table IV.3 shows that this selection is strongly biased towards more qualified immigrants, in particular for those who were not born in a high-income OECD country. In the United States, the difference in the prevalence of tertiary attainment among these two groups is especially large. 20% of non-naturalised immigrants from lower-income countries have a tertiary degree, compared with 44% of naturalised immigrants. This may in part be due to the high level of irregular migration, which tends to be low-educated. In all countries, immigrants from lower-income countries who have taken up the host-country nationality have a higher educational attainment on average than their non-naturalised peers.<sup>10</sup> On average, 26% of naturalised immigrants from lower-income countries are highly-educated, almost twice the share observed for their non-naturalised counterparts.

At the bottom end of the qualification spectrum, the differences are particularly large in Germany. While 54% of non-naturalised immigrants are low-educated, this is only the case for 26% of naturalised immigrants.

There are a number of empirical case studies based on microdata which confirm these findings for individual OECD countries (see the overview in Bevelander and DeVoretz, 2008). The selectivity concerns not only education, but also other dimensions such as age and previous work experience (*e.g.* DeVoretz and Pivnenko, 2008). In sum, there is ample evidence that immigrants from lower-income countries who have naturalised tend to be higher educated than their peers who have not done so.<sup>11</sup>

Table IV.3. **Share of low- and high-educated immigrants by citizenship status and origin, around 2007**

	Percentage of low-educated individuals among immigrants						Percentage of high-educated individuals among immigrants					
	Total		High-income OECD countries		Other countries		Total		High-income OECD countries		Other countries	
	Non-naturalised	<i>Difference between naturalised and non-naturalised</i>	Non-naturalised	<i>Difference between naturalised and non-naturalised</i>	Non-naturalised	<i>Difference between naturalised and non-naturalised</i>	Non-naturalised	<i>Difference between naturalised and non-naturalised</i>	Non-naturalised	<i>Difference between naturalised and non-naturalised</i>	Non-naturalised	<i>Difference between naturalised and non-naturalised</i>
Austria	41	-7	11	(3)	53	-9	13	3	30	(-5)	6	5
Belgium	50	(-4)	46	(-4)	60	-13	24	(1)	26	(-1)	18	6
Switzerland	42	-21	39	-23	46	-19	17	15	22	14	10	15
Germany	54	-28	42	-23	63	-26	12	8	19	4	8	9
Denmark	33	(-3)	(11)	9	48	-14	26	(3)	41	(-1)	16	9
Spain	48	-10	29	13	60	-25	23	10	40	(-6)	12	20
France	68	-24	65	-17	71	-27	11	12	13	3	10	16
Luxembourg	44	-15	45	-17	32	(-2)	23	(0)	23	(-1)	27	(1)
Netherlands	42	-5	21	(2)	59	-19	23	(0)	37	(-4)	11	10
Norway	19	12	13	(4)	45	(-7)	53	-19	59	-15	..	..
Sweden	26	(-3)	23	(-3)	35	-11	27	(-1)	30	(-3)	..	..
United States	38	-22	8	(0)	43	-26	24	22	47	(3)	20	24
OECD average	46	-14	32	-6	53	-18	20	7	30	1	14	12

Note: The share of non-naturalised immigrants is reported in percent. “..” means that the underlying value is not statistically significant. Values in parentheses are of limited reliability. The difference between naturalised and non-naturalised is reported in percentage points. Differences which are not significant (probability > = 10%) are reported in parentheses. The OECD average is the unweighted average of the countries in the table; because of lack of publishable data in some columns, the OECD average does not include Norway and Sweden. Low-educated refers to ISCED levels 0, 1 and 2; high-educated refers to ISCED levels 5 and 6. Results refer to immigrants aged 15-64, not in education and with ten or more years of residence.

Source: See Methodological Annex.

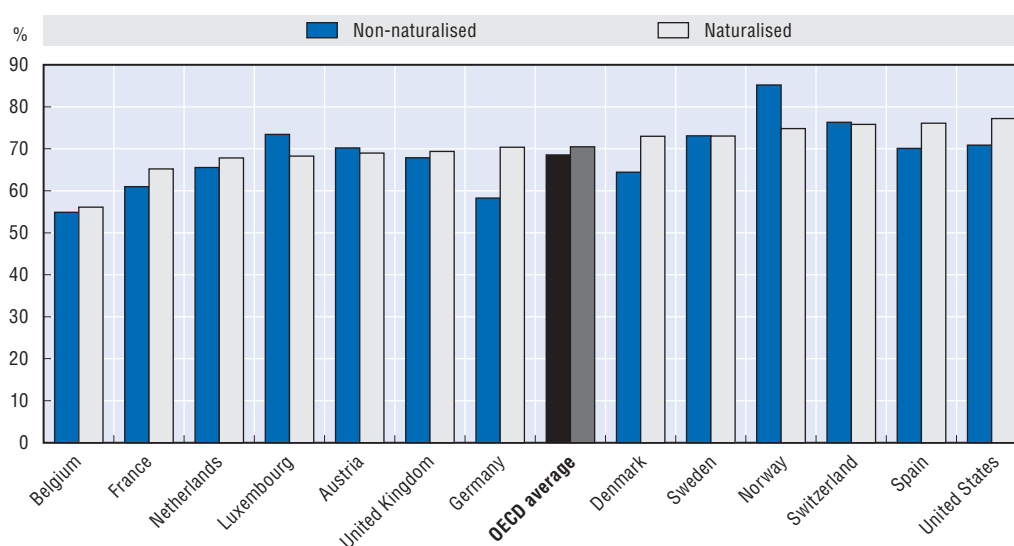
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## 2. The labour market outcomes of naturalised and non-naturalised immigrants

This section provides an overview of the labour market outcomes of immigrants who have naturalised compared with their non-naturalised counterparts for three labour force characteristics – employment, occupational level, and wages. Because of its importance in the context of naturalisation, the issue of access to the public sector is also addressed.


### Employment

Figure IV.2 provides an overview of employment rates for naturalised and non-naturalised immigrants across OECD countries.<sup>12</sup> This aggregate picture shows a tendency towards higher employment rates for naturalised immigrants, although the differences are not large – with the exception of Germany and Denmark, where they are on the order of 10 percentage points. By contrast, in Austria, Luxembourg and Switzerland, naturalised immigrants have slightly lower employment rates than their non-naturalised peers; in Norway the difference is even about 10 percentage points. On average, for the OECD countries included in this overview, naturalised immigrants have employment rates that are about three percentage points higher than those of non-naturalised immigrants. Given the rather large differences in educational attainment, these small differences are surprising.

Figure IV.2. **Employment rates for immigrants by citizenship status, around 2007**

Note: Results refer to immigrants aged 15-64, not in education and with ten or more years of residence. The OECD average is the unweighted average of the countries included in the graph.

Source: See Methodological Annex.

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As has been seen in the previous section, citizenship take-up varies significantly by both host and origin country, as well as by gender. Women and immigrants from lower-income countries are more likely to find themselves among those who have obtained the host-country nationality. Since these two groups tend to have lower employment rates in most countries, one would *a priori* expect differences between naturalised and non-naturalised immigrants to be larger if one looks separately by gender and by region of origin. Table IV.A1.1 and IV.A1.2 in the Annex show the results. Among men, the discrepancies between naturalised and non-naturalised immigrants from high-income OECD countries tend to be small and not statistically significant. Large and in most cases statistically significant differences in turn are observed for immigrants who were not born in a high-income OECD country. 78% of the naturalised immigrants from those countries are employed, in contrast to 70% of immigrants who are not naturalised. The differences are particularly large for Sweden, Germany, Belgium, France and Denmark where they exceed 12 percentage points. Disaggregating immigrant men from other-than-high-income OECD countries by region, one observes large differences for immigrants from African countries, in particular North Africa. However, in many cases the differences are based on small samples and are often not statistically significant.

The picture is similar for women, although the differences in labour market outcomes between naturalised and non-naturalised women from lower-income countries are somewhat higher than for men. The differences are particularly large in the Netherlands, Denmark and Germany where they are 18 percentage points or more. They are also large in Belgium (16 percentage points) and the United States (14 percentage points).

The analysis can be refined further by accounting for other observable characteristics of migrants such as age and education. For this, linear probability models were estimated by country and gender. This method allows one to estimate the percentage-point difference in the probability of being in employment for naturalised and non-naturalised,

while holding constant the educational level, the origin group and age. As mentioned above, immigrants from high-income OECD countries tend to have little to gain from acquiring the host-country nationality, and the descriptive statistics bear this out. There does not appear to be a measurable link between naturalisation and employment for migrants from these countries.<sup>13</sup> These immigrants are therefore excluded in the following regression analysis. The naturalisation coefficients of the linear probability model (with employment as the dependent variable) are shown in Table IV.4. A positive and statistically significant coefficient on the naturalisation variable means that naturalisation is positively correlated with the probability of being in employment, controlling for differences in education, age and country of origin. In most cases, the coefficients are significant and have the expected signs. The correlation is particularly strong in Belgium, Denmark and Germany for both genders, and for men in Sweden. The exception from this pattern are immigrant men in Austria.

**Table IV.4. Estimated higher probability to be in employment associated with naturalisation (in percentage points), around 2007**

	Men	Women
Austria	-4***	6***
Belgium	14***	10***
Switzerland	6**	(4)
Germany	12***	11***
Denmark	12**	14***
Spain	(3)	(2)
France	5***	5***
Luxembourg	(3)	(7)
Netherlands	(1)	10**
Norway	(1)	(-9)
Sweden	20***	(-4)
United States	(1)	8***

Note: \*/\*\*/\*\*\*: values significant at the 10%/5%/1% level, respectively. Data have been restricted to immigrants from lower-income countries, aged 15-64, not in education and with ten or more years of residence. Dependent variable: employment; control variables are host-country nationality (yes/no), origin (origin groups as in the Methodological Annex), age (ten-year age groups) and education (three levels).

Source: See Methodological Annex.

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In order to analyse whether higher employment rates are observed for all migrant groups, an additional model with interaction variables was estimated.<sup>14</sup> For men, migrants from North Africa and the Middle East show the largest difference in employment rates between those who are naturalised and those who are not, followed by immigrants from the other African countries. For immigrant women, it is the latter origin group which shows the largest difference. More generally, for migrant groups which have particularly low employment rates, the observed increase in the employment probability which is associated with naturalisation is higher.<sup>15</sup>

### Occupational level

How do the types of jobs which immigrants occupy differ between naturalised and non-naturalised immigrants? Table IV.5 shows the share of naturalised and non-naturalised immigrants in low- and high-skilled occupations by gender. For men, on average over the OECD countries for which data are available, the share of employed in low-

Table IV.5. **Distribution of employed immigrants by occupational level, by gender and citizenship status (%), around 2007**

	Men				Women			
	Low		High		Low		High	
	Non-naturalised	Difference between naturalised and non-naturalised immigrants	Non-naturalised	Difference between naturalised and non-naturalised immigrants	Non-naturalised	Difference between naturalised and non-naturalised immigrants	Non-naturalised	Difference between naturalised and non-naturalised immigrants
Austria	21	(-4)	21	9	44	-13	22	(3)
Belgium	10	(3)	43	(-4)	18	(-1)	40	(-1)
Switzerland	8	-4	27	20	22	-11	26	20
Germany	13	(-1)	24	(2)	28	(-7)	25	(8)
Denmark	21	-8	35	12	24	-14	33	8
Spain	15	-5	29	12	33	-13	31	(5)
France	13	-2	19	15	48	-23	15	12
Luxembourg	10	..	40	(5)	34	-22	38	(8)
Netherlands	16	-4	37	(2)	22	(-5)	45	(-5)
Norway	..	..	57	-16	..	..	66	-22
Sweden	..	..	39	(-5)	..	..	40	(-3)
United Kingdom	13	(-2)	50	(3)	11	(-3)	48	(-3)
OECD average	14	-2	32	8	28	-10	32	5

Note: Shares of non-naturalised immigrants are shown in percent. “..” indicates that the value is not statistically significant. Differences between naturalised and non-naturalised are reported in percentage points. Differences which are not significant (probability > = 10%) are reported in parentheses. The OECD average refers to the unweighted average of the countries in the table; because of insignificant values in some categories, the OECD average does not include Luxembourg, Norway and Sweden. “Low” occupational level refers to elementary occupations (ISCO 9), “high” includes legislators, senior officials and managers, professionals, technicians and associated professionals (ISCO 1-3). Results refer to immigrants aged 15-64, not in education and with ten or more years of residence.

Source: See Methodological Annex.

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skilled occupations is two percentage points lower among naturalised migrants than among non-naturalised. For high-skilled occupations, the differences between the two groups are even more pronounced, with naturalised being more likely to find themselves among the highly-skilled. In most countries, naturalised immigrants are more often found in high-skilled occupations.<sup>16</sup> For women the pattern is similar, with larger differences at the bottom end of the occupation spectrum.

These results could in part be driven by the fact that immigrants who have naturalised tend to be higher educated on average, and by origin-country effects. To isolate these effects, a linear probability model has been run, with “employed in a high-skilled occupation” as the dependent variable. The results are shown in Table IV.6.

Indeed, all of the significant correlations in the estimation results for men have the expected sign. For example, the probability of being employed in a high-skilled occupation is 7 percentage points higher for naturalised immigrant men in France than for their non-naturalised counterparts. For women, the results are also as expected, with the exception of Norway.


Other empirical studies have obtained similar results. Fougère and Safi (2008) find that immigrants who are naturalised are more likely to be employed as managers, in intermediate professions and as office workers in France. Akbari (2008) shows that among migrants from developing countries in the United States, the share of naturalised immigrants working in professional or managerial occupations is higher than among

**Table IV.6. Estimated higher probability of employment in a high-skilled occupation associated with naturalisation (in percentage points), around 2007**

	Men	Women
Austria	5***	4**
Belgium	(1)	8**
Switzerland	9***	(6)
Germany	3***	6***
Denmark	10*	12***
Spain	11***	(4)
France	7***	5***
Luxembourg	(7)	(1)
Netherlands	5**	(1)
Norway	16*	-19**
Sweden	11***	(-1)
United States	2*	5***

Note: The sample is restricted to employed individuals aged 15-64 and with ten or more years of residence. The table shows the naturalisation coefficients. The dependent variable is the dichotomous variable “employed in a high-skilled occupation”. The variable “highly skilled occupation” is differently defined in the data for the United States (see Methodological Annex). It includes management, business and financial occupations as well as professional and related occupations, in contrast to European data, which cover legislators, senior officials and managers (excluding managers of small enterprises), professionals as well as technicians and associate professionals. The regression includes control variables for origin country, age and education. \*/\*\*/\*\*\*: values significant at the 10%/5%/1% level, respectively.

Source: See Tables IV.4 and IV.5 and the Methodological Annex.

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non-naturalised. For migrants from developed countries, he finds no difference in the occupational level by naturalisation status.

## Wages

Wages are probably the labour market outcome that has been the most extensively studied in the context of naturalisation. In his seminal study, Chiswick (1978), using cross-sectional data from the US census for the year 1970, investigated the economic assimilation of immigrants by comparing the earnings of native- and foreign-born men. He found a positive association between naturalisation and earnings which, however, became insignificant after controlling for years of residence. Chiswick therefore concluded that there was no earnings premium for naturalised immigrants after accounting for their longer period of residence.

Bevelander and Veenman (2008) analysed the relation between naturalisation and wages with cross-sectional data for the Netherlands, for seven migrant groups from lower-income countries. They also find that naturalised immigrants generally earn more than non-naturalised immigrants, with the exception of men from Turkey and women from Afghanistan. The largest wage gap observed was for naturalised men from Somalia, who earn 23% more than non-naturalised migrants. However, they also find that the naturalisation coefficient generally becomes insignificant after accounting for differences in demographic and labour market characteristics between naturalised and non-naturalised immigrants. Nevertheless, they find slightly higher wages for immigrants from the former Yugoslavia, Iran and Iraq who have naturalised (Bevelander and Veenman, 2008).

The wage gap between naturalised and non-naturalised migrants seems to be to a large extent driven by differences in educational attainment. This can be tested by a Blinder-Oaxaca decomposition (Oaxaca, 1973; Blinder, 1973). By this method, the wage differential of groups (in this case, between naturalised and non-naturalised immigrants)

is decomposed into a part explained by human capital endowment (such as education and experience) and an unexplained part due to unobserved factors. This decomposition analysis has been used by DeVoretz and Pivnenko (2008), among others, to explain wage differences between non-citizens and naturalised immigrants in Canada. They calculate, on the basis of Canadian census data from 2001, that the overall wage gap between immigrants with and without Canadian citizenship is about 29% for migrants from non-OECD countries, and 10% for migrants from OECD countries. About half of the wage differential for immigrants from non-OECD countries can be explained by a higher human capital endowment of immigrants who acquire citizenship status. For immigrants from OECD countries, the wage difference becomes negligible after accounting for this.

The Blinder-Oaxaca decomposition has also been applied by Akbari (2008) who finds, based on data from the United States 2000 Census, a substantial wage premium for naturalisation for immigrants from developing countries. Within this group the relative gap in annual earnings between immigrants with and without citizenship is about 11% for men and 9% for women, after controlling for other factors such as duration of residence, age, education and occupation.<sup>17</sup> In general, after controlling, he finds no evidence that the wages of immigrants from OECD countries differ by citizenship status. However, for professional occupations, there seem to be significant differences between naturalised and non-naturalised immigrants from OECD countries. Interestingly, in parallel, the differences between naturalised and non-naturalised immigrants from non-OECD countries are smaller in these occupations than for lesser-skilled jobs.

Calculations for Germany (Steinhardt, 2008) indicate that naturalised employees have on average 5% higher wages than employees with foreign citizenship. Nevertheless, the wages of naturalised employees are on average still lower than those of native German employees. Using the same method as DeVoretz and Pivnenko (2008), almost 40% of the wage gap between naturalised and foreign employees is explained by differences in educational attainment. Likewise, in Switzerland there is a wage gap between naturalised and non-naturalised employed men of about 7% (Steinhardt et al., 2009). Again, the wages of naturalised employees are on average lower than those of employees who are native-born citizens. As much as 80% of the wage differential between naturalised and foreign employees can be explained by differences in endowments.<sup>18</sup>

In all of the studies above, an important part of the wage differences between naturalised and non-naturalised immigrants remains unexplained. None of the studies above control for possible differences in the origin of the qualification. It may be that the higher returns to education which are observed for naturalised migrants could be attributable in part to the fact that they are more likely to have acquired their qualifications in the host country, which provides higher returns (see OECD, 2008b), but there are no firm data on this.

From the national labour force surveys of Germany and France, information on naturalisation, wages and the origin of the highest educational degree is available.<sup>19</sup> Before controlling for differences in socio-economic characteristics, in France one observes about 12% higher wages for immigrants from lower-income countries who have naturalised, and about 6% for immigrants from these countries in Germany (4% for men and 8% for women) (see Table IV.7). After controls for education, age, duration of residence, marital status and origin groups, there remains a higher wage of about 5% for immigrant men in both countries. Controlling in addition for occupational level reduces the differential further – a


significant difference remains only in Germany. Including an additional control variable for the origin of the highest educational attainment does not alter the picture.<sup>20</sup> This also suggests that possible differences in the origin of the qualification cannot explain the higher wages enjoyed by immigrants who have naturalised.

Table IV.7. **Estimated higher wage associated with naturalisation, by origin, France and Germany, around 2006**

		Model (1)		Model (2)		Model (3)		Model (4)	
		High-income OECD countries	Other countries	High-income OECD countries	Other countries	High-income OECD countries	Other countries	High-income OECD countries	Other countries
Men	DE	(2)	4***	(2)	6***	(3)	6***	(3)	6***
	FR	(3)	12***	(-3)	4**	(-3)	(3)	(-3)	(3)
Women	DE	(3)	8***	(1)	(3)	(0)	(2)	(0)	(2)
	FR	12***	13***	(2)	(3)	(-3)	(1)	(-2)	(1)

Note: The figures show the differences in log earnings between naturalised and non-naturalised immigrants, with a positive result indicating higher wages for naturalised immigrants. Because of data limitations, wages refer to hourly earnings in Germany and to monthly earnings in France. The sample is restricted to full-time employed persons aged 15-64 with at least ten years of residence. Model (1) shows the overall difference between naturalised and non-naturalised immigrants. Model (2) includes control variables for education, age, duration of residence, marital status and origin groups (the French model also includes a variable for hours worked); Model (3) additionally includes a control variable for occupational level; Model (4) adds a control variable for the origin of the highest educational attainment to Model (3). \*/\*\*/\*\*\*: values significant at the 10%/5%/1% level, respectively.

Source: See Methodological Annex.

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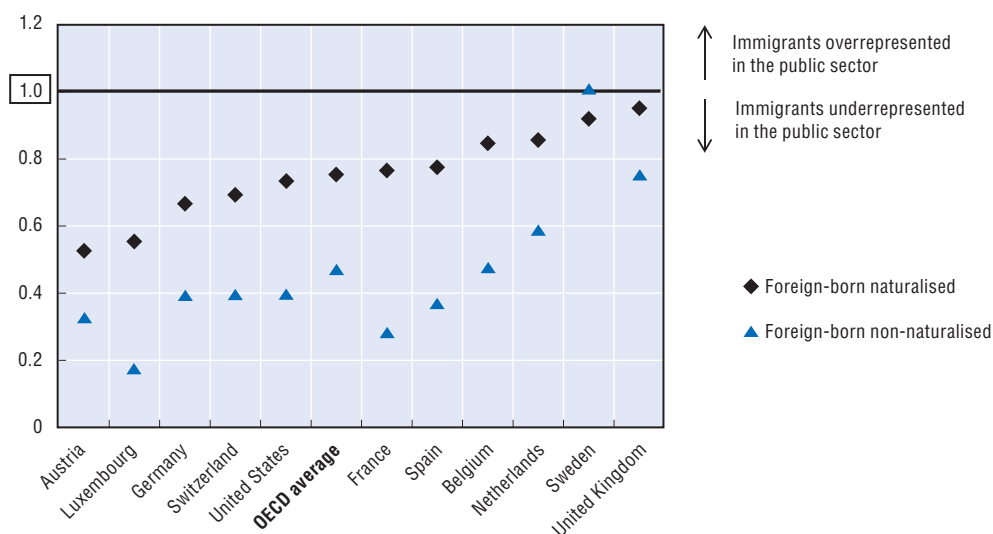
### Public sector employment

One sector where access to employment tends to be linked with citizenship is the public sector. All OECD countries restrict certain positions in the public sector to nationals, although the degree to which this is the case varies considerably. Many non-statutory positions tend to be open to non-nationals, but the rules on this are unclear since information on restrictions of access to public sector jobs is difficult for immigrants to obtain. Facilitated access tends to exist for nationals of countries participating in free-movement agreements such as the European Union. Even though nationals of a member country of the European Union are in general allowed to work in the public sector of other EU member countries, each country has the right to “restrict public sector posts to their nationals if they involve the exercise of public authority and the responsibility for safeguarding the general interest of the State”<sup>21</sup>. Whether a certain job fulfils these criteria is evaluated on a case-by-case basis.

Figure IV.3 shows the share of public sector employment in total employment of foreign-born naturalised and non-naturalised relative to the native-born. In all countries with the exception of Sweden, immigrants with a foreign nationality are underrepresented in the public sector. Again with the exception of Sweden, naturalised immigrants have a higher share of public sector employment in total employment than immigrants with a foreign nationality. Yet, in all countries naturalised immigrants remain underrepresented in the public sector. The differences are particularly large in Austria, Luxembourg, Germany and Switzerland.


The regression results summarised in Table IV.8 show that these results also broadly hold after controlling for different observable characteristics (age, gender and education).

Figure IV.3. **Public sector share of total employment, naturalised and non-naturalised immigrants, as a proportion of the public sector share for native-born persons, around 2007**



Note: The public sector covers the following: public administration and defence, compulsory social security, and education. The data is restricted to people aged 15 to 64 who are not in education. Only immigrants who have lived for at least ten years in the host country are considered.

Source: See Methodological Annex.

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In all countries with the exception of Sweden and the United States, naturalised immigrants are more likely to be employed in the public sector than immigrants who have not naturalised.

However, in most countries even naturalised immigrants have a lower probability to be in public sector than the native-born. This is particularly the case for immigrants from lower-income countries. Sweden and the Netherlands are the two exceptions. This undoubtedly reflects the impact of longstanding policies to promote immigrants' employment in the public sector.

In order to look at whether a higher probability to be employed in the public sector for those who are naturalised is also observed for immigrants within free movement areas, regressions were run separately for immigrants from the EU/EFTA, for the European OECD countries. Even for this group, the probability to be employed in the public sector is significantly higher for those who are naturalised, and this difference is just as high (if not higher) as for migrants from outside of the EU/EFTA.

Even though access restrictions may explain the low share of non-naturalised migrant employees in the public sector in many countries, the reason for the difference between the share of native-born and naturalised immigrants is *a priori* puzzling. There are in principle no institutional barriers and no uncertainty that would prevent naturalised migrants from applying for a job in the public sector because they are generally eligible for the same jobs as citizens. However, a number of factors could help to explain the persistent underrepresentation of immigrants who have naturalised that is observed in several countries.

Firstly, public sector jobs are rarely first jobs for newly arrived immigrants (even when they are eligible). Since immigrants are eligible to naturalise only after having spent a certain time

Table IV.8. **Estimated higher probability to be employed in the public sector associated with naturalisation (in percentage points), around 2007**

	Native-born vs. naturalised immigrants						Naturalised immigrants vs. non-naturalised immigrants					
	Model 1a			Model 2a			Model 1b			Model 2b		
	Total	High-income OECD countries	Other countries	Total	High-income OECD countries	Other countries	Total	EU/EFTA	Non-EU/EFTA	Total	EU/EFTA	Non-EU/EFTA
Austria	-6***	(-2)	-8***	-6***	-5*	-7***	3***	5**	2**	3**	4**	2**
Belgium	(-3)	(3)	-6**	(-3)	(2)	-5**	7***	13***	3*	8***	12***	(2)
Switzerland	-4*	(0)	-7***	-4*	(-2)	-6***	6***	9***	4***	4***	6***	2**
Germany	-7***	-4***	-9***	-5***	-3***	-6***	6***	9***	4***	4***	8***	3***
Spain	(-3)	(-3)	(-3)	-4**	(-3)	-6**	5***	(1)	8***	4***	(2)	4***
France	-6***	-5***	-6***	-6***	-8***	-5***	12***	12***	11***	10***	12***	10***
Luxembourg	-14***	-14***	-14***	-16***	-15***	-17***	12***	12***	13***	12***	12***	12***
Netherlands	(-2)	(-1)	(-2)	(-1)	(-3)	(0)	4***	(3)	5***	2*	(4)	(2)
Sweden	(-1)	(0)	(-1)	(-1)	(-2)	(0)	(-1)	(-1)	(1)	(0)	(-1)	(1)
United Kingdom	(-1)	(4)	(-2)	(-3)	(3)	-4*	3**	6**	4**	5***	7**	4**
United States	-3**	..	..	-5**	..	..	-3***	..	..	(0)	..	..

Note: The figures show the naturalisation coefficient in a Linear Probability Model. The sample is restricted to employed individuals aged 15-64 who are not in education. Model 1a and 2a include immigrants and native-born individuals, Model 1b and 2b only immigrants. The immigrant sample is restricted to immigrants with ten years of residence or more. Dependent variable: Public sector employment. Models 1a and 1b show the percentage points differences without any control variables. Model 2a controls for age (10 year age-groups), gender and education (three levels). Model 2b includes controls for age (10 year age-groups), gender and education (three levels) and dummy variables for origin country groups for non-EU/EFTA countries. \*/\*\*/\*\*\*: values significant at the 10%/5%/1% level, respectively.

Source: See Methodological Annex.

StatLink  <http://dx.doi.org/10.1787/885156561708>

in the host country, most of them will have already chosen a career path at the time of naturalisation, and this can influence their choices even when they change jobs. To the degree that entry into the public sector is generally at the beginning of the career, the underrepresentation could partly be due to the fact that many immigrants have entered private-sector employment upon arrival, and there may be a lock-in effect for this kind of employment. In addition, even though host-country nationality is often not required in entry positions, the more limited career perspectives for non-citizens may be an incentive to look elsewhere.

Another reason could be the existence of requirements for certain public sector jobs, which immigrants find it harder to meet. Degrees in a very country-specific field of study (for example administrative or public law) could be such a requirement. In such a case, the transferability of human capital might be more limited than in other high-skilled jobs (for example IT specialists). In any case, the fact that even native-born children of immigrants remain underrepresented in the public sector in a number of countries (Liebig and Widmaier, 2009) suggests that there are other issues involved than the origin of qualifications.

Different preferences for public-sector employment between natives and naturalised immigrants are another possible reason for the discrepancies in the shares of public sector employees. Other potential explanations for the underrepresentation even of naturalised immigrants are that the public sector attaches a higher value to education in the host country or to other characteristics which are more often found among the native-born (such as mastery of the host-country language), and/or that access to the public sector

requires more often networks and tacit knowledge than jobs in the private sector. Further studies would be needed to test these hypotheses.

### 3. The impact of naturalisation on immigrants' labour market outcomes

All of the evidence presented above has been based on cross-sectional data, that is, immigrants who have the host-country nationality are compared with immigrants who do not have it. It is conceivable that naturalised and non-naturalised immigrants differ along a range of other factors that are not captured by observable cross-sectional characteristics such as education and age for which it is possible to control. Of particular policy relevance is to know whether the more favourable labour market outcomes for immigrants who have naturalised are merely a result of the different selection processes involved in gaining access to host-country nationality, or whether there is a measurable direct impact of naturalisation itself.

#### **Possible channels by which naturalisation can have an impact on immigrants' labour market outcomes**

In which ways could host-country nationality boost immigrants' labour market outcomes?<sup>22</sup> First, naturalisation might reduce labour market barriers. For example, some jobs tend to require citizenship status, such as certain jobs in the public sector or in certain regulated professions such as, for example, notaries.<sup>23</sup> As a result, immigrants who naturalise are able to enter jobs which were unavailable to them without citizenship.

Second, having the host-country nationality can decrease administrative costs to employers associated with employing foreigners, such as the verification of work rights. Naturalisation also enhances migrants' cross-border employability (*e.g.* for international assignments or business travel) which is required in some high-skilled occupations. However, this is likely to be a relatively minor phenomenon.

Third, and linked with the second point, the act of naturalisation might work as a signalling device for employers. The fact that a job applicant has naturalised may convey a signal such as possession of appropriate language skills or a certain minimum duration of stay, or other (unobserved) capacities associated with obtaining host-country citizenship (*e.g.* more ambition). This means that naturalisation may be used by employers as some sign of "integration" in terms of acquisition of host-country human capital. Likewise, naturalisation may decrease uncertainty about the immigrant's expected length of stay in the host country and/or return intentions. The information transmitted through the host-country nationality thereby reduces uncertainty about the productivity of the job applicant. Since such uncertainty is one of the main causes of statistical discrimination, having the host-country nationality could also have the effect of limiting the latter.<sup>24</sup>

Fourth, individuals may increase their investment in human capital when they decide to naturalise or following naturalisation, for example because of a stronger attachment with the host country or because they expect that the return on investment in higher education is greater for persons who have naturalised – for example because of reduced discrimination in hiring, as seen above. Employers might also be more likely to invest in an employee's human capital after naturalisation if the take-up of host-country citizenship is interpreted as a long-term residential decision. Having the host-country nationality can also facilitate access to host-country higher educational institutions. In Switzerland, for example, some universities have introduced upper limits on the share of foreigners that they accept. Access to scholarships is also often linked with nationality.

### **Empirical evidence**

To properly study the impact of naturalisation on the labour market integration of immigrants one needs to have data that compare immigrants' labour market outcomes before and after naturalisation. This is the advantage of longitudinal data. Cross-sectional surveys can also have longitudinal information in them, for example those which collect data on work history and the time of naturalisation. Either of these is needed to investigate whether having the host-country nationality really improves the labour market outcomes of immigrants, or whether the persons who have naturalised already enjoyed more favourable outcomes prior to naturalisation with no additional impulse given by the host-country nationality. Empirical studies on the impact of naturalisation on immigrants' labour market outcomes which make use of such data have thus far been scarce (see the overview in Table IV.A1.3 in the Annex).

Bratsberg *et al.* (2002) were the first to use longitudinal data to estimate the effect of naturalisation on wage growth of foreign-born men who are in employment. With data from the National Longitudinal Survey of Youth (NLSY), they demonstrate that wage growth for young male immigrants in the United States is accelerated after the acquisition of citizenship. They estimate an impact of naturalisation on wages in the order of 6 percentage points. Most of this is due to higher returns for each year of experience after naturalisation – they observe an increase of almost 3 percentage points after controlling for a whole range of factors including education, occupation, sector and prior experience. In addition, there is a movement into better jobs after naturalisation, namely into the public sector and into white collar occupations.<sup>25</sup> For example, after 5 years of citizenship, an immigrant is about 3 percentage points more likely to be in the public sector than his or her counterpart who has not naturalised. This indicates that the enhancement of upward job mobility and employment in the public sector are important mechanisms through which naturalisation can affect the labour market integration of immigrants.

A similar methodological approach is used by Steinhardt (2008). His estimates of administrative panel data on employed individuals in Germany confirm that the acquisition of citizenship has a virtually immediate positive effect on the wages of employees and that wage growth is accelerated in the years after the naturalisation event. The wages increase immediately after naturalisation by 1%, and the wage growth in the years following naturalisation is about 0.3 percentage points higher per year for those who eventually naturalise.<sup>26</sup> It also seems that the immigrants with the lowest earnings benefit most from the wage increase associated with naturalisation. Hayfron (2008), in his analysis of the impact of naturalisation on wages in Norway, also finds higher returns to experience after naturalisation.

Ohlson (2009), using longitudinal data on earnings for Sweden, finds evidence for what he calls a “motivation effect” of naturalisation already in the years preceding the acquisition of Swedish citizenship. Earnings of both employed women and men start to increase on average by about 3.5% in the period four years before the acquisition of citizenship and thereafter. He thus argues that immigrants who intend to naturalise do invest more in human capital that is specific to the host country, and therefore enjoy higher earnings already prior to naturalisation. Scott (2008), also using longitudinal data on employed individuals in Sweden, estimated the changes in wages after naturalisation. Overall, he finds a positive impact for men, but the impact does not appear to be very large.<sup>27</sup>

Only two studies have compared immigrants' employment prior to and after naturalisation. Fougère and Safi (2006) use the *Echantillon Démographique Permanent* (EDP), a dataset that makes it possible to track individuals using the information gathered during the 1968, 1975, 1982, 1990 and 1999 French censuses. They compare persons with the same labour market status, education and age prior to naturalisation and look at the differences at subsequent census waves between those who have naturalised and those who have not. Their estimates of the premium that is associated with getting French nationality are very large, about 23 percentage points for both men and women. They also find that naturalisation appears to have a very high impact on the employment of the most disadvantaged immigrants, that is, those with the lowest employment probability. The large increases could in part be due to the fact that immigrants who naturalise behave differently from those who do not acquire citizenship despite having a comparable labour market status at the beginning of the observation period.

To circumvent this problem, Scott (2008) analyses only migrants who at some point take up Swedish citizenship and uses the variation in the naturalisation date to measure the impact of having Swedish citizenship.<sup>28</sup> Indeed, he finds for Sweden lower values for the impact of naturalisation on immigrants' employment. The largest premium is observed for immigrant women from Iran, who enjoy a higher employment rate of nine percentage points. For most other lower-income countries, the average impact is estimated at around five percentage points, for both genders. In contrast, there is generally no premium following naturalisation for immigrants from high-income OECD countries.

Some evidence that having the host-country nationality reduces discrimination has been provided by so-called "testing" experiments in which otherwise "equivalent" CVs in which the candidates only differ by nationality and name (to indicate the immigrant origin) are being sent to employers offering jobs. The studies generally show that having the host-country nationality reduces discrimination, but the impact differs among occupations. Duguet *et al.* (2007), for example, show for France that having French nationality reduces the number of applications necessary to obtain an invitation to a job interview by a factor of about five for an accounting position but only by about a quarter for a job as a waiter.<sup>29</sup> This indicates that the signalling related with naturalisation tends to be more important in the higher-skilled regulated professions.<sup>30</sup>

## Conclusions

This chapter has attempted to shed light on three key questions related with naturalisation and immigrants' labour market integration. The questions raised and the answers arrived at from a look at the available data and literature are the following:

### ***How do naturalised immigrants fare in the labour market of countries compare with their counterparts who have not taken up the nationality of their host countries?***

The analysis above has shown that having the host-country nationality is generally associated with better labour market outcomes for immigrants. Naturalised immigrants enjoy substantially better labour market outcomes across a whole range of indicators such as a higher employment probability, better occupational status and access to the public sector, and higher wages. In general, the differences between naturalised and non-naturalised are larger for immigrants from lower-income countries. Such immigrants seem to gain most from having the nationality of the host country, because labour market

barriers tend to be larger for them. Immigrants from these countries are also more likely to take-up the citizenship of the host country.

The observed better outcomes are partly driven by the fact that there is some positive selection of migrants into citizenship – for example, immigrants who take up the host-country nationality tend to be higher educated and to have better labour market outcomes already prior to naturalisation. This, in turn, is partly due to self-selection of “successful” immigrants and partly due to the requirements set for naturalisation by host countries. These tend to favour immigrants who have acquired some knowledge about the host country and its language, and who have better employment outcomes already prior to naturalisation. This “selectivity” is most pronounced for immigrants from lower-income countries. At the same time, at least in the European OECD countries for which comparable data are available, there has been an increase in citizenship take-up among immigrants from lower-income countries.

***Are the better outcomes for those who have naturalised merely due to the fact that immigrants who eventually naturalise were already better integrated prior to naturalisation, or are there improvements in outcomes after naturalisation?***

On the basis of the limited data and the scarce longitudinal studies available, there are a number of results which demonstrate that having the host-country nationality has, by itself, a beneficial effect on immigrants’ labour market outcomes. It not only enhances the general likelihood to find employment, but also its quality and the associated wages. It also contributes to a better representation of immigrants in the public sector which is often seen as crucial for integration, as it promotes the visibility of immigrants in daily life and can contribute to enhancing the understanding of immigrants’ needs by public institutions. These effects are observed virtually immediately after naturalisation which suggests that naturalisation has immediate pay-offs. In addition, the effects appear to be strongest for the most disadvantaged immigrants in the labour market.

***Why do the outcomes of immigrants improve after naturalisation?***

The improvement in the outcomes seems to be attributable to a mix of factors involving immigrants themselves, the removal of labour market barriers, and employer behaviour. Immigrants move into the public sector after naturalisation, which suggests that the removal of labour market barriers is one channel by which labour market outcomes improve. Likewise, having the host-country nationality reduces discrimination, as employers appear to interpret host-country nationality as a signal for higher productivity and, more generally, better integration. This seems to be particularly important in higher-skilled occupations and indeed, a large part of the improvement in labour market outcomes appears to be attributable to the fact that these jobs become more accessible after naturalisation. One study has provided evidence that the improvements linked with naturalisation start materialising already somewhat prior to the naturalisation act, which suggests that the prospect of a forthcoming naturalisation also may have a motivation effect for immigrants, for example by inciting them to invest more in human capital that is specific to the host country.

However, little is known about the relative contribution of these factors to the observed improvement. Further longitudinal studies are clearly needed to better analyse these contributions and to measure their impact.

### Policy lessons

Whatever the ultimate driving factors, the combined impact of naturalisation on the different labour market outcomes seems to be large in many countries, in particular for those migrants who tend to be most disfavoured in the labour market. Naturalisation thus appears to be an effective integration tool. On the basis of the evidence that is available to date there seems to be a rather strong case for encouraging citizenship pick-up by migrants and/or for making access less restrictive, where this is an issue. It enhances immigrants' access to employment, contributes to a better utilisation of migrants' human capital, and seems also to be beneficial for the public purse. These effects appear to be strongest for those immigrants who are most disfavoured in the labour market. At least on the basis of economic considerations, OECD countries would thus seem to achieve considerable gains from facilitating access to the host-country nationality. Some OECD countries such as Australia, Canada and New Zealand have for many years pursued an active policy to encourage naturalisation among recently arrived immigrants, as a means to rapidly integrate immigrants into the society as a whole. Some of these countries have also branded rapid access to citizenship as a means of attracting and retaining highly-skilled immigrants. In Australia, Canada and New Zealand, the vast majority of immigrants have naturalised within five to ten years after arrival.<sup>31</sup>

In contrast, in the European OECD countries included in this overview, only a little over half of all migrants with more than ten years of residence have taken the nationality of their host countries. It is possible that this is at least partly due to the fact that both the host-country society and the immigrants themselves are not aware of the economic benefits involved with immigrants taking the host-country nationality. These clearly merit to be made more widely known, both to policy-makers and to migrants themselves.

In some of these countries, where access to host-country nationality is particularly difficult, the barriers may be too high – lowering such barriers would help improve immigrants' labour market outcomes in the aggregate. Likewise, for some migrants the cost associated with giving up the nationality of the origin country may be a major obstacle, and facilitating dual nationality would help to overcome this barrier. It appears that OECD countries have more to gain than to lose from such a strategy and indeed, the number of OECD countries which allow dual nationality has been on the rise. These possibilities should be made more transparent for migrants.

Finally, the findings imply that statistics that measure integration outcomes on the basis of the foreign population are becoming less and less representative for the immigrant population as a whole. Any progress that will be made in integrating immigrants will thus tend to be underestimated by “monitoring” only the foreign population. Indeed, it is even possible that – given the observed selectivity and the trend increase in citizenship take-up which are both particularly pronounced for the most disfavoured immigrants – outcomes for “foreigners” from lower-income countries appear to decline over time, despite real improvements if one looks at the same people over time. This demonstrates that progress in “integration” needs to take into account all of the foreign-born population and not only those who retain the nationality of their countries of origin.

## Notes

1. This chapter has been prepared by Thomas Liebig (OECD), Max Steinhardt (Hamburg Institute of International Economics, HWWI) and Friederike Von Haaren (University of Hannover). Friederike Von Haaren thanks the Agence Nationale de la Recherche (ANR) and Deutsche Forschungsgemeinschaft (DFG) that supported part of her contribution under the joint ANR-DFG project “Integration of First and Second Generation Immigrants in France and Germany”.
2. In some countries such as the United Kingdom and the United States, a legal distinction is made between nationality and citizenship, with nationality being broader concept. In the settlement countries, it is “citizenship” that is the preferred term, which suggests that one is undergoing a legal process; in European OECD countries the preferred term tends to be nationality, which has ethnic/cultural as well as legal connotations. In this chapter, the terms “nationality” and “citizenship” will be used interchangeably.
3. In 2010, however, legislative changes were introduced making naturalisation more restrictive in Belgium.
4. The terms “immigrants” and “foreign-born” are used synonymously in this chapter.
5. This comprises both cases in which an applicant foreigner may be legally entitled to citizenship and cases in which there is a discretionary decision by the host country authorities.
6. A comprehensive glossary on definitions related to citizenship and naturalisation in Europe is provided by the European Union Democracy Observatory on Citizenship (<http://eudo-citizenship.eu/citizenship-glossary/89>).
7. The latter refers to a case where the spouse and/or the children of an applicant acquire citizenship simultaneously with the person who naturalises (Federal Statistical Office Germany, 2009).
8. The only exception is Fougère and Safi (2008).
9. Among the countries included in the analysis, only Switzerland has a longer required period of residence (12 years) for the ordinary naturalisation procedure.
10. The term “lower-income countries” is used in this chapter synonymously with “other than high-income OECD countries”.
11. Note that it is also conceivable that naturalised immigrants are more likely to invest in higher education after naturalisation (e.g. because they may have better access to scholarships). However, this is unlikely to explain much of the observed differences in educational attainment between naturalised and non-naturalised immigrants.
12. The term “employment rate” is used in this chapter synonymously with the employment/population ratio.
13. The results of a separate regression analysis (not shown) for these countries confirm that naturalisation almost never shows a statistically significant link with the employment probability of immigrants from high-income OECD countries.
14. The results are not included in Table IV.4 but are available upon request.
15. It is also possible that the naturalisation coefficient differs between high- and low-educated immigrants. Further analysis shows, however, that there is, for most countries, no measurable difference for persons with different education levels. Again, the results are not included in Table IV.4 but are available upon request.
16. The notable exception to this pattern is Norway.
17. The relative wage gap is measured as the wage difference between immigrants with and without citizenship as a percentage of the wage of immigrants without citizenship.
18. The authors include a number of additional individual and sector-specific characteristics which might explain the high share of endowments. These include characteristics such as labour market experience, occupation, duration of residence, and industry.
19. This latter information is not directly available but can be approximated from other information.
20. This observation is rather robust – it also holds in alternative specifications.
21. [http://ec.europa.eu/youreurope/nav/de/citizens/working/public-employment/index\\_en.html](http://ec.europa.eu/youreurope/nav/de/citizens/working/public-employment/index_en.html) (14.10.2009).
22. It is *a priori* also possible that naturalisation can have a negative impact on labour market outcomes, for example if access to certain out-of-work benefits that could reduce work incentives is conditional on host country nationality. This could be one reason for the observed lack of

“naturalisation premium” for some groups in some countries (e.g. for immigrants from some OECD countries in Sweden, see below and Scott, 2008). Nevertheless, as will be seen in more detail below, this effect is not visible in the aggregate result where one observes a substantial improvement in labour market outcomes attributable to naturalisation, in particular for immigrants from lower-income countries.

23. In Germany, medical doctors with a non-EU nationality may also face certain restrictions (Yamamura, 2009).
24. Statistical discrimination occurs in the presence of information asymmetries, that is, when the employer judges an applicant not on the basis of his/her expected individual (marginal) productivity, but rather on preconceptions about the average productivity of the group to which the person belongs.
25. Bratsberg *et al.* (2002) also observe higher unionisation rates following naturalisation.
26. Note that such modest increases in wage growth on a per-year basis result in substantial differences over the horizon of the entire working-life. Already 10 years after naturalisation, a naturalised immigrant earns on average a higher wage of 3.2% compared with an immigrant who does not naturalise.
27. In addition, the impact seems to differ significantly between immigrant groups – for immigrants from some countries (Greece, Chile, Norway and Italy) the estimated impact is even negative.
28. Scott (2008) also runs an alternative longitudinal specification with all migrants (both those who take-up citizenship at some stage and those who do not) and indeed finds a much larger “naturalisation premium”. He therefore argues that in standard longitudinal analyses the naturalisation premium tends to be overestimated since other factors than citizenship are at play. This is partly circumvented by looking only at immigrants who naturalise at some stage.
29. In both cases, naturalised immigrants had to write more applications than the native-born.
30. Note that these tests control for educational level and the origin of education; they generally concern immigrants who arrived in the country quite young and were fully educated in the country. The impact may be different for persons who arrived as adults and have acquired at least part of their qualifications abroad.
31. The United States is a special case here because much immigration has been irregular. Many long-term resident immigrants are thus not entitled to US citizenship.

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## Methodological Annex

The estimates in this chapter are based on pooled data from the European Labour Force Survey (LFS) of 2006 and 2007 and restricted to persons aged 15-64, not in education and to foreign-born with more than ten years of residence. Microdata were used for Germany (Microcensus, 2005), France (Enquête Emploi, 2007) and the United States (Current Population Survey, March Supplement 2008). For the regression analyses, microdata were also used for Austria (Microcensus, 2008) and Switzerland (Labour Force Survey, 2008). For Germany, ethnic Germans (*Aussiedler* and *Spätaussiedler*) are excluded from the analysis. Immigrants for France include only foreign-born persons with a foreign nationality at birth.

Immigrants are grouped by their country of birth. North America (excluding Mexico) and Oceania are grouped with EU and EFTA member countries in the group of “high-income OECD countries”. Due to data limitations it was not possible to include Japan and Korea in this group. They are included in the group of immigrants from East and South East Asia.

Origin countries in the French and German microdata differ slightly from those used for the remaining countries. In the German data, Iceland, Liechtenstein and Norway are not included in the category of “high-income OECD countries”. Furthermore, no distinction between migrants from different African countries was possible for Germany, therefore the group “other African countries” does not exist here. All migrants from Africa are included in the group “Near Middle East and North Africa” in Germany.

In France, immigrants from Algeria, Tunisia and Morocco form the group “Near Middle East and North Africa”. The group “East and South-East Asia” only includes immigrants from Laos, Cambodia and Viet Nam.

Immigrants from countries other than “high-income OECD countries” are referred to as “other countries”, “remaining countries” or “lower-income countries”.

In the data for the United States, “high-skilled occupations” relate to management, business and financial occupations, as well as professional and related occupations; “low-skilled occupations” include cleaning and helping occupations.

Table IV.A1.1. **Employment rates of immigrant men by citizenship status and origin, around 2007**

Total	High-income OECD countries		Other countries													
			Total		Regions											
					Non-EU/EFTA European countries		Central and South America and Caribbean		East and South East Asia		North Africa and near middle East		Other African countries			
Non-naturalised	<i>Difference between naturalised and non-naturalised immigrants</i>	Non-naturalised	<i>Difference between naturalised and non-naturalised immigrants</i>	Non-naturalised	<i>Difference between naturalised and non-naturalised immigrants</i>	Non-naturalised	<i>Difference between naturalised and non-naturalised immigrants</i>	Non-naturalised	<i>Difference between naturalised and non-naturalised immigrants</i>	Non-naturalised	<i>Difference between naturalised and non-naturalised immigrants</i>	Non-naturalised	<i>Difference between naturalised and non-naturalised immigrants</i>			
Austria	79	(-2)	88	-15	76	(3)	76	(3)	..	..	(92)	-11	..	..	..	..
Belgium	65	(2)	69	(-3)	53	14	53	(11)	..	..	..	..	46	16	(59)	18
Switzerland	83	(1)	86	(-2)	79	5	77	7	(81)	(2)	91	(-3)	75	(6)	83	(-2)
Germany	68	11	77	4	62	16	62	17	77	(10)	73	(2)	55	19	-	-
Denmark	71	7	86	(2)	62	12	62	(12)	..	..	..	..	(53)	16	..	..
Spain	77	8	77	11	77	(5)	71	(9)	78	(6)	92	(-8)	72	(7)	90	(-19)
France	69	6	75	-6	64	12	60	(1)	(85)	-15	(77)	(10)	58	17	77	(3)
Luxembourg	81	(-5)	81	(-5)	80	(0)	85	..	..	..	..	..	..	..	(72)	..
Netherlands	76	(1)	81	(-1)	72	(4)	79	(-6)	(81)	(-1)	84	(-2)	60	(4)	70	(13)
Norway	87	-10	90	(-8)	..	..	..	..	..	..	..	..	..	..	..	..
Sweden	72	(5)	77	(3)	59	18	..	..	..	..	..	..	..	..	..	..
United Kingdom	80	(1)	81	(5)	78	(2)	(66)	(9)	(70)	(2)	80	(-1)	(67)	(11)	82	(2)
United States	83	2	85	(-5)	82	3	71	(10)	85	(0)	82	5	81	(6)	77	13
OECD average	75	3	80	-1	70	8										

Note: Shares of non-naturalised employed immigrant men are shown in percent. “..” indicates that the value is not statistically significant. Differences between naturalised and non-naturalised are reported in percentage points. Differences which are not significant at the 10% level are reported in parentheses. The OECD average refers to the unweighted average of the countries in the table; because of non-significant values in some categories, the OECD average is not calculated for the different origin groups of non-high-income OECD countries and does not include Norway. The sample is restricted to immigrants aged 15-64, not in education, and with at least ten years of residence.

Source: See Methodological Annex.

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Table IV.A1.2. **Employment rates of immigrant women by citizenship status and origin, around 2007**

	Total		High-income OECD countries		Other countries											
					Total		Regions									
	Non-naturalised	<i>Difference between naturalised and non-naturalised immigrants</i>	Non-naturalised	<i>Difference between naturalised and non-naturalised immigrants</i>	Non-naturalised	<i>Difference between naturalised and non-naturalised immigrants</i>	Non-naturalised	<i>Difference between naturalised and non-naturalised immigrants</i>	Non-naturalised	<i>Difference between naturalised and non-naturalised immigrants</i>	Non-naturalised	<i>Difference between naturalised and non-naturalised immigrants</i>				
Austria	61	(1)	71	(-12)	56	(8)	56	(8)	..	..	(55)	21	..	..	..	..
Belgium	44	(3)	50	(3)	29	16	(25)	(8)	..	..	..	..	..	..	..	..
Switzerland	68	(2)	72	(-2)	63	(7)	61	(9)	70	(-2)	76	(-7)	(61)	(9)	75	(1)
Germany	48	14	60	7	40	18	40	16	50	14	52	(3)	29	20	..	(0)
Denmark	58	9	76	(-1)	47	18	51	17	.	.	(52)	(11)	..	..	-	-
Spain	62	(7)	60	(4)	64	(8)	53	.	76	(0)	72	(11)	46	(1)	72	(2)
France	54	3	69	-8	43	11	34	15	81	(-10)	..	..	35	14	60	9
Luxembourg	65	(-5)	66	(-7)	58	(8)	(52)	.	.	..	..	..	..	..	(74)	..
Netherlands	55	(5)	73	(-8)	39	20	38	(11)	(49)	18	56	(6)	27	19	(49)	(18)
Norway	83	-11	86	(-6)	..	..	..	..	..	..	..	..	.	..	..	..
Sweden	74	(-5)	75	(-2)	69	(-2)	..	..	..	..	..	..	.	..	..	..
United Kingdom	58	(0)	67	(2)	47	9	(32)	21	69	(1)	39	(8)	(49)	(-1)	56	13
United States	58	13	66	(3)	56	14	42	22	53	17	68	5	52	(13)	76	(0)
OECD average	59	4	67	-2	51	11	..	..	..	..	..	..	..	..	..	..

Note: Shares of non-naturalised employed immigrant women are shown in percent. “..” indicates that the value is not statistically significant. Differences between naturalised and non-naturalised are reported in percentage points. Differences which are not significant (probability  $\geq 10\%$ ) are reported in parentheses. The OECD average refers to the unweighted average of the countries in the table; because of insignificant values in some categories, the OECD average is not calculated for the different origin groups of non-high-income OECD countries and does not include Norway. The sample is restricted to immigrants aged 15-64, not in education, and with at least ten years of residence.

Source: See Methodological Annex.

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Table IV.A1.3. **Longitudinal studies on the impact of naturalisation on the labour market outcomes of immigrants**

Study	Country	Data, period, data type	N*	Methodology	Effects on	Results	Magnitude of impact
Bratsberg <i>et al.</i> (2002)	US	National Longitudinal Survey of Youth (NLSY), 1979-1991, survey data	2 514	Individual fixed effects	Wages	Positive impact on wage growth, no evidence for accelerated wage growth prior to naturalisation.	Returns per year of experience are 2.5 percentage points higher after naturalisation.
Bratsberg <i>et al.</i> (2002)	US	National Longitudinal Survey of Youth (NLSY), 1979-1991, survey data	2 514	Dynamic probit regressions	Employment	Positive impact on employment in public-sector and white-collar jobs.	After 5 years of citizenship, evaluated at the sample mean, the likelihood of employment in the public sector is 3.3 percentage points higher than prior to naturalisation.
Steinhardt (2008)	Germany	IAB employment sample, 1975-2001, register data	507 325	Individual fixed effects	Wages	Positive impact on wage growth after naturalisation, immediate positive effect of naturalisation.	Wage growth following naturalisation is 0.3 percentage points higher per year than for non-naturalised immigrants. Furthermore, naturalisation is associated with an immediate wage increase of about 1%.
Fougère and Safi (2009)	France	Echantillon Démographique Permanent (EDP), 1968-1999, census data	17 386	Bivariate probit model	Employment	Positive relationship between employment probability and naturalisation. Magnitude varies across different immigrant groups.	Naturalization is associated with an employment premium of 23 percentage points for both men and women.
Scott (2008)	Sweden	Swedish Longitudinal Immigrant database (SLI), 1980-2001, register data	No info	Probit regressions	Employment	Mixed results. Association between employment probability and naturalisation varies strongly across immigrant groups.	Naturalised immigrants from Ethiopia have a 7-percentage-point higher probability of being full-time employed than their non-naturalised counterparts. On the other hand, the employment probability of naturalised immigrants in the US is 16 percentage points lower than that of their non-naturalised counterparts.
Scott (2008)	Sweden	Swedish Longitudinal Immigrant database (SLI), 1980-2001, register data	No info	Random effects GLS	Wages	Mixed results. Association between wages and naturalisation varies strongly across immigrant groups.	Naturalised immigrants from the Czech Republic earn 6% more than their non-naturalised counterparts. The wages of Greek immigrants who naturalise are 4% lower than their counterparts.
Ohlson (2008)	Sweden	LISA, 1990-2006, register data	497 293	Individual fixed effects	Wages	No indication for a positive impact on wage growth after naturalisation, evidence for accelerated wage growth prior to naturalisation.	Earnings start to increase on average by about 3.5 per cent in the period four years before the acquisition of citizenship and thereafter.
Hayfron (2008)	Norway	FD-Tygd Panel, 1992-2000, register data	2 382	Random effects	Wages	Positive association between wage growth and naturalisation.	Extending the post-naturalisation period by one year increases a naturalised citizen's wage by about 10 per cent, evaluated at the sample mean.

\* All observations refer exclusively to non-naturalised and naturalised immigrants.

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