How Immigrants Contribute to Ghana's Economy

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Foreword

Immigration has a long history in Ghana, and the country's relative affluence has often made it an attractive destination for international migrant workers. Although the effects of immigration have been investigated in Ghana before, there is a need for more systematic empirical research into how immigrants contribute to the economy. Such research informs the debate on migration flows, which are increasing globally, in particular outside the traditional high-income regions. It also constitutes a basis to understand which policy responses should be instituted for the good of both immigrants and the destination countries.

The OECD Development Centre, the International Labour Organization and the European Commission have worked together to tackle these challenging questions. Working across different contexts, the goal is to help countries design effective policies for leveraging immigration for positive development outcomes. This has included providing advice on the governance of comprehensive immigration systems and linking development strategies for policy coherence within a country and across countries.

This report, How Immigrants Contribute to Ghana's Economy, *is a step forward in assessing the contribution of immigration to development and improving the design of migration and development strategies. It builds upon the joint OECD-ILO project, Assessing the Economic Contribution of Labour Migration in Developing Countries as Countries of Destination (ECLM). The project carried out comparable analyses for Ghana and nine other countries – Argentina, Costa Rica, Côte d'Ivoire, the Dominican Republic, Kyrgyzstan, Nepal, Rwanda, South Africa and Thailand – to present a greater understanding of immigration's economic impacts. Different key components of the economy are explored through a combination of quantitative and qualitative methodologies*

The report examines empirically how immigrants affect key segments of the economy. These segments include: the labour market in terms of labour force and human capital, economic growth and public finance. The report also analyses the political and historical context of immigration and suggests ways to maximise the impact of immigrants in different contexts through appropriate policy responses.

The report highlights the fact that the impact of immigration is not straightforward. It depends on the country context and economic conditions. However, any country can maximise the positive impact of immigration by improving policies to better manage and integrate immigrants so that they can invest and contribute to the economy where they work and live while staying safe and leading fulfilling lives. The report also provides a

basis for dialogue and policy guidance for development practitioners and policy makers who attempt to integrate immigrants into their economy and society for the benefit of both immigrants and the native-born population.

Following the discussion on guidance for action with key stakeholders and policy makers to be held in Accra, the European Commission, the OECD Development Centre and the ILO look forward to continuing their co-operation with Ghana to optimise immigration for better economic and development outcomes.

Mario Pezzini
Director of the OECD Development Centre and Special Advisor to the OECD Secretary-General on Development

Manuela Tomei
Director of the Conditions of Work and Equality Department, International Labour Organization

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How Immigrants Contribute to Ghana's Economy is the fruit of the joint OECD-ILO project, Assessing the Economic Contribution of Labour Migration in Developing Countries as Countries of Destination (ECLM), carried-out in ten low- and middle-income countries. The project was managed by David Khoudour, Head of the Migration and Skills Unit of the OECD Development Centre, under the guidance of Mario Pezzini, Director of the OECD Development Centre and Special Advisor to the OECD Secretary-General on Development, Federico Bonaglia, Deputy Director of the OECD Development Centre, Manuela Tomei, Director of the ILO's Conditions of Work and Equality Department, and Michelle Leighton, Chief of the ILO's Labour Migration Branch. Shinyoung Jeon and Hyeshin Park, from the OECD Development Centre, co-ordinated the project, while Theodoor Sparreboom, Chief Technical Advisor in the Labour Migration Branch, led the ILO team. The OECD team included Maria Alejandra Betancourt, Bram Dekker, Fatoumata Diarrassouba and Sarah Kups. The ILO team was composed of Sandra Berger and Jesse Mertens.

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Facts and figures of Ghana

(Numbers in parentheses refer to the OECD average)

The land, people and electoral cycle

Population (million)[e]	28.2	Official languages	English
Under 15 (%)[e]	39 (18)	Form of government	Presidential republic
Population density (per km^2)[e]	124 (37)	Last election	7 December 2016
Land area (thousand km^2)[e]	227.5		

The economy

GDP, current prices (billion USD)[e]	42.7	Exports of goods and services (% of GDP)[e]	40.7 (27.9)
GDP growth[e]	3.6 (1.7)	Imports of goods and services (% of GDP)[e]	47.9 (27.3)
GDP per capita, PPP (thousands, current international USD)[e]	4.3 (41.9)	GDP shares by sector (%)[d]	
Inflation rate[e]	17.5 (0.4)	Agriculture, forestry and fishing	21.0 (1.5)
General government total expenditure (% of GDP)[d]	25.0	Industry, including construction	27.6 (24.3)
General government revenue (% of GDP)[d]	25.0	Services	51.4 (74.2)

Well-being

Life satisfaction (average on 1-10 scale)[e]	4.5 (6.5)	Population with access to improved sanitation facilities (%)[d]	15 (98)
Life expectancy[e]	63 (80)	Mean years of schooling[b]	7.0
Income inequality (Gini coefficient)[b]	42.4	Proportion of population under national minimum income standard (%)[b]	24.2
Gender inequality (SIGI index)[c]	0.30 (0.02)	Unemployment rate (%)[f]	2.4 (5.8)
Labour force participation (% of population ages 15+)[a]		Youth unemployment rate (ages 15 to 24, %)[f]	4.9 (13.0)
Native-born	71.1	Satisfaction with the availability of affordable housing (% satisfied)[e]	41 (54)
Foreign-born	69.5	Enrolment rates[e]	
Employment-to-population ratio (% of population ages 15+)[a]		Primary (Net)	86 (96)
Native-born	67.3	Secondary (Net)	53 (90)
Foreign-born	65.1	Tertiary (Gross)	16 (73)

Note: Data from a) 2010; b) 2012; c) 2014; d) 2015; e) 2016; f) 2017.

Source: Central Intelligence Agency, *The World Factbook* 2017. Washington, DC *https://www.cia.gov/library/publications/the-world-factbook/index.html*; Gallup (2015), *Gallup World Poll* (database), Gallup Organisation; IMF, *World Economic Outlook Database*, International Monetary Fund, October 2017 edition, Washington DC; Minnesota Population Center, *Integrated Public Use Microdata Series*, International: Version 6.5. Minneapolis: University of Minnesota, 2017. *http://doi.org/10.18128/D020.V6.5.*; OECD, *SIGI Social Institutions and Gender index*, *http://www.genderindex.org/*; UNESCO Institute for Statistics, Data Centre, *http://data.uis.unesco.org/*; World Bank, *World Development Indicators* (database), *http://data.worldbank.org/*, Washington DC.

Executive summary

Ghana has been in turn both a country of immigration and emigration during much of its history, and the potential contribution made by immigrants has increasingly been recognised during recent decades. Since the adoption of the 1992 Constitution, progress has been made with regard to migrants' rights, and the attention for migration culminated in the adoption of a national migration policy in 2016.

Ghana has extensive literature on migration, but a systematic empirical economic analysis has been lacking. The current report contributes to this literature by assessing the economic impact of immigrants based on agreed methodologies that are applied across ten partner countries. This report is innovative in that nationally representative population census data are used to assess the contribution of immigrants to labour markets, economic growth and public finance.

The methodology was developed in the context of the project Assessing the Economic Contribution of Labour Migration in Developing Countries as Countries of Destination. The project was co-financed by the European Union's Thematic Programme on Migration and Asylum and implemented jointly by the OECD Development Centre and the ILO, from August 2014 to July 2018. The project analysed several economic impacts – on the labour market, economic growth and public finance – of immigration in ten partner countries. The empirical evidence stems from a combination of quantitative analyses of primary and secondary data sources with qualitative analyses.

A national consultation seminar on 26 May 2015 launched the project's activities in Ghana. It was organised in collaboration with the Ministry of Employment and Labour Relations, the Delegation of the European Union to Ghana and the ILO Country Office.

The contributions of immigration to Ghana's economy are diverse

The analysis in this report demonstrates the contribution of immigrant workers to Ghana's economy and focuses on three dimensions of this contribution: labour markets, economic growth and public finance.

- **Labour market impact on native-born workers**

  Immigrant workers seem well-integrated into labour markets in terms of both the quantity and the quality of employment, and much of the employment of foreign-born workers appears to be demand-driven. This is reflected in the occupations taken by immigrants and in the match of immigrant workers with the structure of employment. Nevertheless, there are also some displacement effects in particular for women, who appear to face greater challenges than foreign-born men.

- **Economic growth**

  The impact of immigration on gross domestic product (GDP) per capita is unlikely to be negative. This is primarily due to the high share of the working-age population among immigrants. The contribution of immigrants to GDP in 2010 is estimated at 1.5%, which is just below the commensurate share in employment (1.6%). Based on qualitative studies, the report illustrates a number of mechanisms through which this contribution is generated in the trade and mining sectors in Ghana.

- **Public finance**

  The contribution of immigrants to the government's fiscal balance exceeds the contribution of the native-born population (on a per capita basis). This is mostly due to the fact that the government spends less on average on immigrants than on native-born individuals. According to the method based on average cost, the net foreign-born contribution per capita was -1.9% of GDP in 2013, compared with -8.8% of GDP for the native-born. According to the marginal cost scenario, the contribution of the foreign-born is 4.1% of GDP (and the contribution of the native-born is again -8.8%).

Policies to boost the economic contribution of immigration

This report identifies several areas of policy interventions that merit particular attention with a view to maximising the economic benefits from immigration. The most important area in this context concerns the implementation of the national migration policy, which has been in place since 2016 but has not yet been fully taken forward. The policy appears to support a coherent whole-of-government approach, which is widely considered as important for migration policies to be successful.

Apart from the migration policy, important areas of intervention are access to social protection for all foreign-born workers and the outreach of skills transfer programmes to specifically address the foreign-born population. Particular attention in this respect needs to be placed on protecting immigrant women and children.

Development of labour market information systems that effectively link migration policy and employment policy is another important area in need of attention. Appropriate mechanisms should be developed not only to systematically collect data on migration, but to analyse data on a regular basis and inform policies accordingly.

Chapter 1

Immigrants' contribution to Ghana's economy: Overview and policy implications

This chapter provides an overview of the full report. It first describes the project on Assessing the Economic Contribution of Labour Migration in Developing Countries as Countries of Destination (ECLM). It then addresses the economic impacts of immigration on the country. The chapter presents the report's key results regarding the foreign-born population in Ghana, such as the labour market and fiscal impact of immigration, and regarding the broad contribution of immigrant workers to gross domestic product. The chapter ends with policy implications related to how immigrants affect Ghana's economy.

For much of Ghana's history, the country has been an attractive destination for immigrants, and many have become well-integrated into the Ghanaian economy and society. Following an earlier period during which policies placed restrictions on the economic activities of immigrants, the country introduced a far more welcoming legal and regulatory framework starting in the 1990s, which culminated in a National Migration Policy adopted in 2016. Nevertheless, there is no systematic research on the economic effects of immigration in Ghana. For example, evidence on the extent to which foreign-born workers displace or lower the wages of the native-born is currently lacking.

This report aims to provide empirical evidence on the economic role of immigration in Ghana for the benefit of policy makers and the broader public. It was written in the context of a joint OECD Development Centre – International Labour Organization project on **Assessing the Economic Contribution of Labour Migration in Developing Countries as Countries of Destination (ECLM)** (Box 1.1).

The report comprises six chapters. This chapter offers an overview of the project in the context of which this report was prepared and presents the key results on the economic contribution of labour immigration in Ghana. Chapters 2 and 3 provide the policy context and descriptive analysis of immigration. Subsequent chapters empirically investigate the impacts of immigration on the labour market (Chapter 4), economic growth (Chapter 5) and public finance (Chapter 6).

This national report can be read in conjunction with the project's comparative report (OECD/ILO 2018). While the current report provides a more in-depth discussion of the economic contribution in Ghana, the comparative report presents an overview of the findings across the project's ten partner countries.

Box 1.1. **What is the added value of the project?**

In August 2014, the OECD Development Centre and the International Labour Organization (ILO) launched a project, co-funded by the European Union's (EU) Thematic Programme on Migration and Asylum, on **Assessing the Economic Contribution of Labour Migration in Developing Countries as Countries of Destination**. This project, implemented from 2014 to 2018, aimed to analyse the economic impact of immigration in developing countries across a variety of dimensions.

The OECD, ILO and EU launched the project to address a dual reality. More than one third of international migrants (UN DESA, 2017) and 25% of all working-age

Box 1.1. **What is the added value of the project?** *(cont.)*

international migrant workers (ILO, 2015) currently live in low- and middle-income countries, and yet little is known about how their economies are affected by these immigrant populations. This stands in stark contrast to the depth of literature on the economic impacts of immigration in high-income (usually OECD) countries (Kerr and Kerr, 2011; Bodvarsson and Van den Berg, 2013; and Böhme and Kups, 2017). This missing analysis would not be an issue if the existing research results on OECD countries applied equally to non-OECD countries, but they may be different due to a different context.

A large number of immigrants in developing countries come from within their region, while many OECD countries host immigrants from the entire globe. Moreover, the economic and policy context in which these immigrants integrate into the labour market is different. As an example, the share of informal employment tends to be more elevated in lower- than in higher-income countries. Both of these factors likely contribute to impacts of immigration that differ between developed and developing countries. Understanding these differences could help low- and middle-income countries formulate immigration and integration policies that maximise the development potential of immigration.

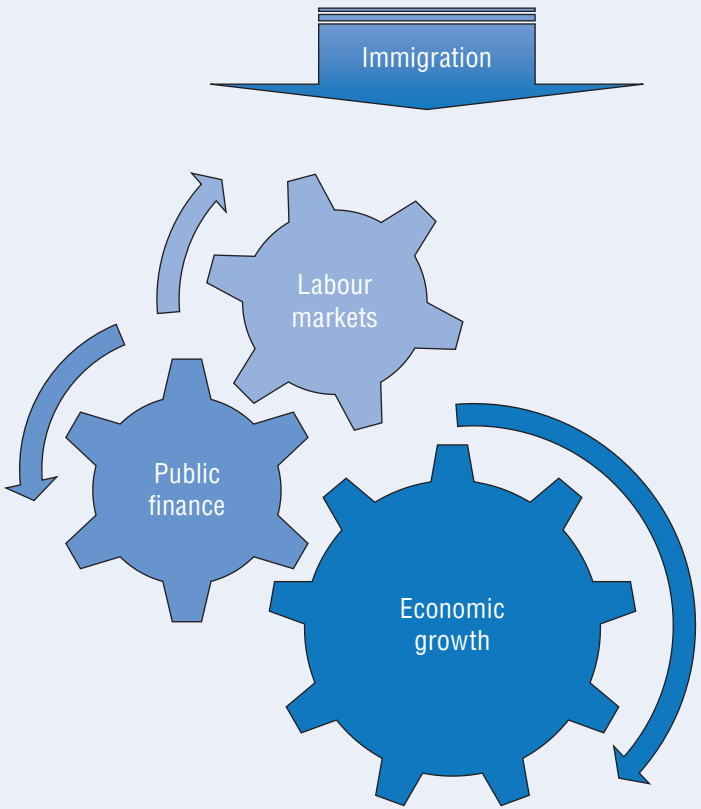
The project was carried out in collaboration with ten partner countries: Argentina, Costa Rica, Côte d'Ivoire, the Dominican Republic, Ghana, Kyrgyzstan, Nepal, Rwanda, South Africa and Thailand. They were selected based on their interest in the project, a substantial (but varying) share of immigrants and a relatively low share of humanitarian immigrants. By working with a diverse group of countries in terms of their geographic location and economic and immigration history and characteristics, the project aimed to provide an indication of the range of possible economic impacts of immigration in developing countries. It therefore addressed not only stakeholders in the ten partner countries, but equally policy makers and other interested parties in other low- and middle-income countries with mid-sized to large immigrant populations.

The project examines empirically how immigrants contribute to their host countries' economies by focusing specifically on: i) labour markets, in terms of employment, unemployment, human capital and wages; ii) economic growth and contributions to sectoral value added; and iii) public finance, including public spending and fiscal contributions (Figure 1.1).

The methodologies to analyse these various impacts generally follow those used in other contexts and published in the academic literature. Leading migration researchers provided their perspectives on suitable methodologies at an international expert meeting that took place at the OECD in Paris on 23-24 February 2015.[a] Data constraints sometimes made it impossible to analyse all aspects in every partner country. Each country report and the integrated report provide detailed descriptions of their methodologies.

Box 1.1. **What is the added value of the project?** *(cont.)*

Figure 1.1. **Immigration: Contributing to host countries' economies**



a. For more information, see *www.ilo.org/global/topics/labour-migration/events-training/WCMS_344708/lang--en/index.htm*.

Immigration's economic contribution to Ghana

The findings of the report suggest that immigrant workers contribute to the Ghanaian economy in several ways (for a definition of immigrants, see Box 1.2). The contribution of the foreign-born employed to GDP in 2010 (1.5%) was just below the commensurate share in employment (1.6%). The low proportion of foreign-born workers in overall employment indicates the limited effects on national labour markets. Much foreign-born employment seems in accordance with the demand for labour; however, some negative employment effects for native-born workers are evident, in particular for women. Native-born

wage levels are not affected at the national or the sub-national level. The net fiscal contribution of immigrants exceeded the contribution of the native-born in the two years in which this was analysed (2006 and 2013).

Box 1.2. **The challenge of defining "immigrants"**

Immigrants and foreigners

No universal definition of an immigrant really exists. The most commonly cited definition accords with the 1998 Recommendations on Statistics of International Migration: "any person who changes his/her country of usual residence, […] in which an individual normally spends his daily period of rest" (UN, 1998). An individual who enters the nation for up to three months is not considered as an immigrant, but rather a visitor. Beyond three months, the individual will be termed a short-term immigrant for the next nine months. Only after one year of legal residency in the country the immigrant will be termed a long-term migrant.

In line with this definition, the Population Division of the United Nations' Department of Economic and Social Affairs estimates international migrant stocks by using the country of birth as a reference (UN DESA, 2016). This report adopts this definition, as it is widely used in analytical work and as data are available in all countries covered by the project. International immigrants are therefore individuals who were born in another country than the country in which they live. This definition does not take into account the citizenship of people.

Some people are born abroad but are not foreigners, while others are born in their country of residence but do not have its citizenship. This often relates to the national legislations in terms of citizenship and naturalisation. Four different scenarios in terms of country of birth and citizenship are illustrated in Table 1.1:

- In countries that favour *jus sanguinis*, it is more difficult for the children of immigrants born in the country to get access to the citizenship of their country of birth (**native-born foreigners**).
- In countries where *jus soli* prevails, children of immigrants can become citizens of their country of birth more easily. They are therefore **native-born citizens**, but are often referred to as the second generation.
- In some countries, and depending on the naturalisation rules, individuals born abroad can become citizens of their country of residence after a certain number of years. They are **foreign-born citizens**.
- While most people born in their country of residence are also citizens of that country, in most cases the foreign-born are also foreigners (**foreign-born foreigners**). This is because i) they do not stay long enough to acquire citizenship, ii) the legislation in their country of origin does not allow for dual citizenship or iii) the rules in their host country are too strict.

Box 1.2. **The challenge of defining "immigrants"** *(cont.)*

Table 1.1. **Understanding the differences between immigrants and foreigners**

		Country of birth	
		Born in the country of residence	Born in a foreign country (immigrants)
Citizenship	***Citizens of the country of residence***	Native-born citizens	**Foreign-born citizens**
	Citizens from another country (foreigners)	Native-born foreigners	**Foreign-born foreigners**

Labour immigrants

While labour immigration refers to immigration for employment in the destination country as the primary purpose, different ways to measure it exist. Strictly speaking, immigrants who have a work permit in the destination country are labour immigrants. A less strict definition would be those who immigrate for work or employment-related opportunities. Information on the reason for immigration is not always available, even in high-income countries (OECD/European Union, 2014). Yet, some ECLM partner countries (e.g. Argentina, Costa Rica, the Dominican Republic and Thailand) have such information.

This report refers to labour immigration in a broad sense by taking from household surveys or population censuses those immigrants who are looking for work or are employed. Such a definition reflects the fact that labour immigration often drives other types of immigration flows, such as family immigration, and may be partly driven by those flows. Non-labour immigrants by a strict definition, for instance humanitarian immigrants and students, may also enter the labour market at some point and contribute to the destination country's economy in similar ways that labour immigrants do.

Citizenship is another criterion to define labour immigration. For example, the International Convention on the Protection of the Rights of All Migrant Workers and Members of Their Families defines the term migrant worker as "any person who is to be engaged, is engaged or has been engaged in a remunerated activity in a State of which he or she is not a national" (UN, 1990). The present report distinguishes between different definitions of labour immigrants as appropriate.

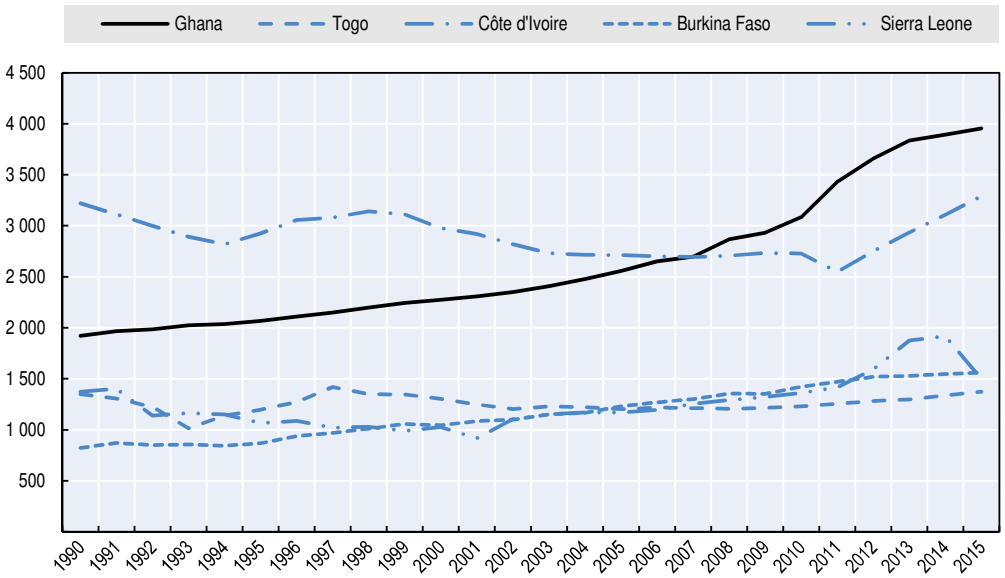
It is important to recognise the differences that may result from using different definitions. To define internationally agreed concepts and standards, an ILO working group on labour immigration statistics was established following the 19th International Conference of Labour Statisticians (ICLS) in 2013. The working group will report at the next ICLS meeting in 2018.

Economic growth has been strong, but inequality remains a concern

The economic context in Ghana has become more favourable in recent decades. Ghana's economy contracted in the early 1980s, which prompted the adoption of an Economic Reform Program (ERP) in 1983. Following a difficult decade, economic growth rates gradually improved, and in the past 25 years Ghana has become a strong economic performer. GDP per capita doubled from USD 1 920 in 1990 to USD 3 950 in 2015 (Figure 1.2), surpassing income per capita in neighbouring countries. Important strides have also been made towards achieving the Millennium Development Goals. However, the economic situation in more recent years, in particular the lack of improvement in living standards and increasing inequality, has been generating tensions.

Figure 1.2. **Ghana has experienced a steadily increasing GDP per capita over the past 25 years**

GDP per capita, PPP (constant 2011 international dollars)



Source: World Bank, World Development Indicators, 2016.

Ghana has a long history of immigration

Migration has a long history in Ghana, as people moved and sometimes settled along the Trans-Sahara trade route connecting West Africa and North Africa. The arrival of the Europeans in the 15th century resulted in changes in the flows of goods and people, including slaves, and ultimately led to the formalisation of the borders of present day Ghana in the 19th century. As these borders were arbitrarily agreed upon by the main European powers, homogenous

cultural groups were divided between Ghana and neighbouring Burkina Faso, Côte d'Ivoire and Togo. The impact of colonial state formation continues to be visible today in the cross-border movement of people.

During much of the 20th century, Ghana's relative affluence made it an attractive destination for migrants seeking work in the country's mines, agriculture and related trades. The 1960s were a highpoint of immigration, when about one in eight people in Ghana was an immigrant. This trend continued until the 1970s, when Nigeria, due to a booming oil-based economy, replaced Ghana as the primary destination for migrants in West Africa. Economic and other crises dampened Ghana's attractiveness, and the country expelled many Nigerians without residence permits in 1969. Apart from Nigerians, immigrants from other countries in the region, such as Togo, and from the Middle East, particularly Lebanon, have a long history in Ghana. Furthermore, African migrants from Burkina Faso and Mali can be found in urban inner-city informal settlements (so-called Zongos) in Ghana.

Immigration reforms following the new constitution in the 1990s

The return to political stability since the early 1990s again made the country an attractive destination for migrants. In this regard, the attitudes towards international migrants have often been positive in Ghana. Ghana's Constitution (1992) includes the obligation to respect the human rights and freedoms of all people in Ghana, including foreign nationals irrespective of their country of birth or legal status. From the mid-1990s, much of the legislation relating to immigration and investment was reviewed to encourage the inflow of foreign talent and expertise. For example, the Immigration Act of 2000, which replaced the so called "Aliens Act" of 1963, creates avenues for citizenship for people living in Ghana for long periods. The Labour Act of 2003 (Act 651) consolidates labour laws and provides for the equal treatment of foreigners and nationals. Ghana also adopted a National Migration Policy in 2016, which recognises the contribution immigrants can make to the economy.

Foreign-born workers are often well-integrated, but women face challenges

The review of the labour market indicators in this report demonstrates the differences and similarities in the labour market positions of immigrants and native-born workers. Although foreign-born workers are generally well-integrated in terms of both the quantity and the quality of employment, important differences in employment and unemployment outcomes for female immigrants remain. Female foreign-born workers face a double disadvantage: employment rates are lower for women than for men, and the female foreign-born employment rate is lower than the rate for Ghanaian-born

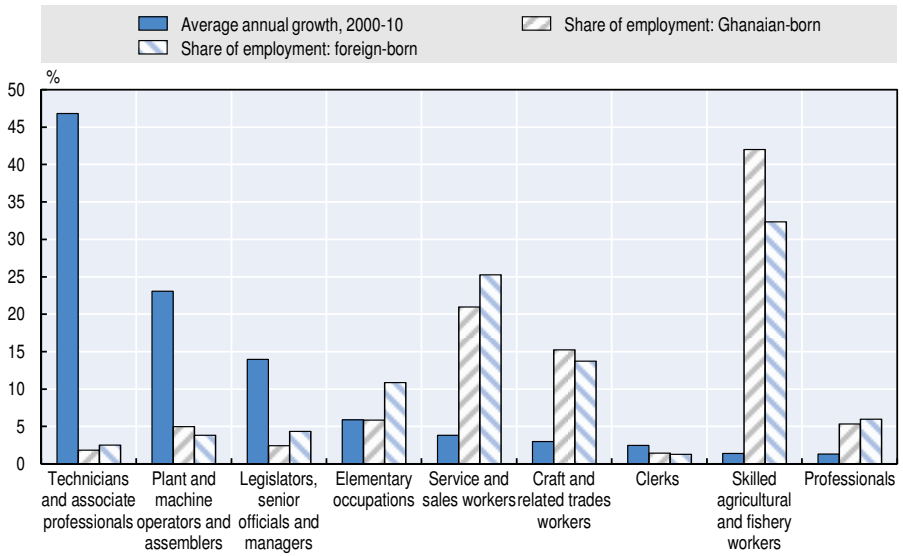
women. Whereas official unemployment rates for native-born and immigrant men were close to 5% in 2010, immigrant women faced an unemployment rate of 8.2% compared with 5.8% for native-born women.

Foreign-born employment has increased rapidly in Ghana since 2000, but the numbers remain small in comparison to the native-born. The quality of employment, as measured by the share of workers in non-vulnerable employment, is relatively high for foreign-born workers. They are also relatively strongly represented in service sectors of the economy. Overall, and despite the strong presence of migrants in service sectors such as retail and trade but also mining and financial services, the sectoral employment distributions are fairly equal.

Immigration has been stimulated by Ghana's economic performance and also seems to be driven by employment opportunities. For example, foreign-born workers are overrepresented in occupations with relatively high rates of growth, such as technicians and elementary occupations, while several of the slow-growing groups have relatively low proportions of foreign-born workers (Figure 1.3). Although occupational change is to an important extent driven by prime-age and older workers, new immigrant workers are more sensitive to occupational growth than new entrants into the labour market (Figure 1.4).

Figure 1.3. **Foreign-born workers are well-represented in fast-growing occupational groups in Ghana**

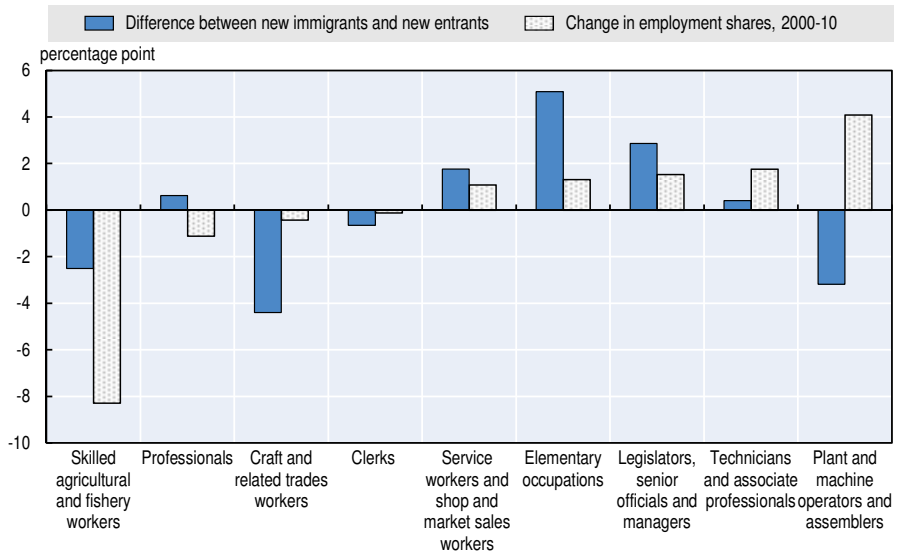
Employment by major occupational group and nativity status, 2010 (%)



Source: Authors' calculations based on Minnesota Population Center (2015), *Integrated Public Use Microdata Series, International*, *http://doi.org/10.18128/D020.V6.5*.

Figure 1.4. **New immigrants in Ghana are driven by occupational demand to a greater extent than new entrants into the labour market**

Entries of new immigrants and new entrants into growing and declining occupational groups (percentage points)



Source: Authors' calculations based on Minnesota Population Center (2015), *Integrated Public Use Microdata Series, International*, *http://doi.org/10.18128/D020.V6.5*.

Immigrants are strongly represented in many fast-growing occupations, and the share of foreign-born workers with a tertiary education has been increasing. Skills mismatch of immigrants seems limited and therefore does not constitute a major constraint regarding their economic contribution. Nevertheless, skills mismatch in the form of overqualification seems an issue for particular groups of occupations, such as clerks.

While Ghanaian-born workers earned a higher wage on average in 2006, the situation reversed in 2013. The same is true when solely considering the male population. Foreign-born women, on the other hand, consistently earn a lower wage than their native-born counterparts. While wages increase with educational attainment for both foreign- and native-born workers, the wages of the former were higher at every educational level when compared to their native-born counterparts for 2013.

The observed wage differential can in part be attributed to differences in personal characteristics between foreign- and native-born workers. Nevertheless, even when the wages of foreign- and native-born workers of the same age, sex and education living in the same region in a given year are compared, immigrants still earn on average 12% more than native-born workers.

The labour market impact of immigration shows some negative effects for women

It is important to question if or to what extent the presence of immigrant workers has been beneficial or detrimental to the employment opportunities of Ghanaian workers. No empirical studies are available on this topic in Ghana, yet studies undertaken elsewhere often suggest limited effects of immigration on native-born labour market outcomes.

Labour immigration represents an increase in the supply of labour in the country of destination and can be analysed based on two dimensions: education and experience. These jointly determine skill cells, which are at the centre of the empirical approach adopted in this report. The impact of immigration on labour market outcomes, including the real wage, the employment-to-population ratio and the proportion of employed in paid employment, is measured by the variations that exist in the proportion of immigrants across skill cells.

At the descriptive level, the rate of employment of native-born workers has increased over time across all levels of education and experience. Furthermore, on average, a decline in employment rates is observed across all education groups at younger and older ages due to cyclical unemployment or early retirement. This is the case for all educational levels, though the magnitude of the decline increases with the level of educational attainment. In contrast to total employment, a different trend is seen for paid employment. Even though the paid employment rate increases for Ghanaian workers as their level of education rises, the proportion of workers remained relatively stable from 2000 to 2013.

The econometric approach demonstrates that the presence of immigrants reduces the employment rate at the national level (Table 1.2). However, there is no significant effect on the paid employment rate of Ghanaian-born workers. The presence of immigrant workers appears to mainly affect labour market outcomes for native-born female workers. In particular, the paid employment rate of female Ghanaian-born workers is negatively affected by immigrant workers, while the unemployment rate of female workers may rise. This raises concerns. Furthermore, a decrease in the paid employment rate may potentially increase informality or lower the quality of work. At both the national and sub-national levels, immigration does not appear to affect native-born real wages.

Table 1.2. **Immigrants have an effect on the native-born labour market outcomes, especially for women**

Summary of the regression results on the relationship between native labour market outcomes and immigrant shares

Variables	All workers National	All workers Sub-national	Men	Men (controlling for women)	Women	New immigrants
(1) Employment rate of Ghanaian-born workers	–	o	o	o	o	o
(2) Unemployment rate of Ghanaian-born workers	o	o	o	o	+	o
(3) Paid employment rate of Ghanaian-born workers	o	o	o	o	–	–
(4) Log of real wages of Ghanaian-born workers	o	o	o	o	o	o

Note: The table reports the sign of the immigrants' share variables from regressions where the dependent variable is the mean Ghanaian-born labour market outcome for an education*experience group at a particular point in time. o = no significant effect; + = a significant positive effect; – = a significant negative effect. Due to data limitations, the wage analysis is solely based on data provided by the *Ghana Living Standard Survey 5 and 6, Microdata*.

Source: Authors' calculations based on Minnesota Population Center (2015), *Integrated Public Use Microdata Series, International*, *http://doi.org/10.18128/D020.V6.5*, and Ghana Statistical Service (2016), *Ghana Living Standard Survey 2006 and 2013 Microdata, www.statsghana.gov.gh/nada/index.php/home*.

Effects of immigration on the economy and selected sectors

The contribution of immigrant workers to GDP is estimated at around 1.5%, which is just below the share of foreign-born workers in employment (1.6%). The high share of the foreign-born population of working age makes it unlikely that immigration lowers income per capita in Ghana.

Qualitative studies undertaken in the mining and trade sectors illustrate some of the interactions between native-born and foreign-born workers and highlight the economic contribution of foreign-born workers. These sectors were selected in view of their economic weight and the high employment share of foreign-born in comparison with native-born workers.

For each sector, the studies' findings were based on i) interviews with key stakeholders; ii) interviews with enterprises; and iii) focus group discussions among both native-born and immigrant workers. The project team organised a training workshop to conduct pilot fieldwork in collaboration with the Centre for Migration Studies in Accra, which implemented the study.

The studies illustrate that a combination of pull and push factors interact to channel immigrants from major source countries such as China, India, Lebanon and Nigeria into the trade and mining sectors of Ghana. Interactions between immigrant and native-born populations are often complex. Various ways in which immigrants contribute positively to the Ghanaian economy are highlighted, including through job creation, revenue generation and the transfer of skills. However, the presence of immigrants in the trade and mining sectors has also raised issues, in particular with regard to violations of investment and environmental legislation.

Fiscal analysis demonstrates a positive impact of the foreign-born

Increased migration has led to questions concerning the impact of immigration on the fiscal balance of economies. While prejudice towards migrant workers may feed the belief that they cost more than the country benefits, little empirical evidence exists on the fiscal impact of immigration outside high-income countries.

The analysis in this report demonstrates that, while total revenue collected from native-born individuals surpassed that of the foreign-born in both 2006 and 2013, foreign-born individuals incur much lower costs for the Ghanaian government. Furthermore, the fiscal contribution of foreign-born people exceeded that of the native-born population on a per capita basis in both years, and this is true for both accounting methods used in this report. According to the method based on average cost, the net foreign-born contribution per capita was -1.9% of GDP in 2013, compared with -8.8% of GDP for the native-born. According to the marginal cost scenario, the contribution of the foreign-born was 4.1% of GDP (and the contribution of the native-born was again -8.8%).

Conclusions and policy implications

Immigration generates diverse economic effects in Ghana, which include a beneficial net fiscal contribution, and several labour market effects. Even though much of the employment of foreign-born workers appears to be demand-driven, there are also some displacement effects in particular for women. Immigrant workers seem well-integrated into labour markets, but their overall economic contribution is limited by the number of immigrants.

Despite the low numbers of immigrants, migration policies have increasingly recognised the potential contribution that immigrants can make to the economy. The National Migration Policy, which has been in effect since 2016, seeks to mainstream migration into other development policies and should be taken forward, including with regard to the necessary institutional framework. The policy also appears to support a coherent whole-of-government approach, which is widely considered as important for migration policies to be successful.

The policy aims to respond to the causes and consequences of migration flows in order to reduce the costs and increase the benefits of migration to Ghana. On top of strategies outlined in this policy, additional steps would require the implementation of programmes to improve i) social protection access and portability; ii) the outreach of skills transfer programmes to specifically address the foreign-born population; and iii) the outreach of awareness raising campaigns. Particular attention in this respect needs to be placed on protecting immigrant women and children. Currently, the need for mainstreaming gender into relevant laws and policies has been acknowledged, yet more could be done to ensure that this happens.

Additionally, Ghana would be advised i) to enhance the capacity of government agencies dealing with migration, ii) to strengthen inter-state and inter-agency co-operation and co-ordination, iii) to ratify international, regional and sub-regional conventions and protocols that protect the rights of migrants; and iv) to strengthen the implementation of policies. This could be addressed by increasing training, building capacity and strengthening accountability mechanisms.

The linkages between migration policy, employment policy and the development of labour market information systems are also in need of attention. Appropriate mechanisms should be developed not only to systematically collect data on migration (which to an important extent already happens), but also to analyse data and inform other policies accordingly.

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Chapter 2

The immigration landscape in Ghana: Patterns, drivers and policies

This chapter presents the economic and policy context of labour immigration in Ghana. It starts with an overview of the country's macroeconomic environment and its rapid socioeconomic development, in particular during the 1990s and early 2000s. Subsequent sections provide the immigration context, including an overview of Ghana's long and rich immigration history, attitudes towards immigration and the main groups of immigrants. The chapter ends with recent policies and the international immigration context in West Africa.

Over the course of its history, Ghana has in turn been both an immigration and emigration country. In the colonial and early years of independence, Ghana was considered a relatively prosperous country, which attracted immigrants from neighbouring states. Apart from the use of immigrant work in agriculture and mining by the colonial government and enterprises, migration flows were partially due to the division of communities brought about by the colonial borders.

With the decline in the economy in the 1970s and 1980s, many Ghanaians emigrated to look for better opportunities abroad. However, since the adoption of the 1992 Constitution the country experienced several decades of political stability, and strong economic performance coupled with relatively well-regulated migration flows. This period culminated in the adoption of a national migration policy in 2016.

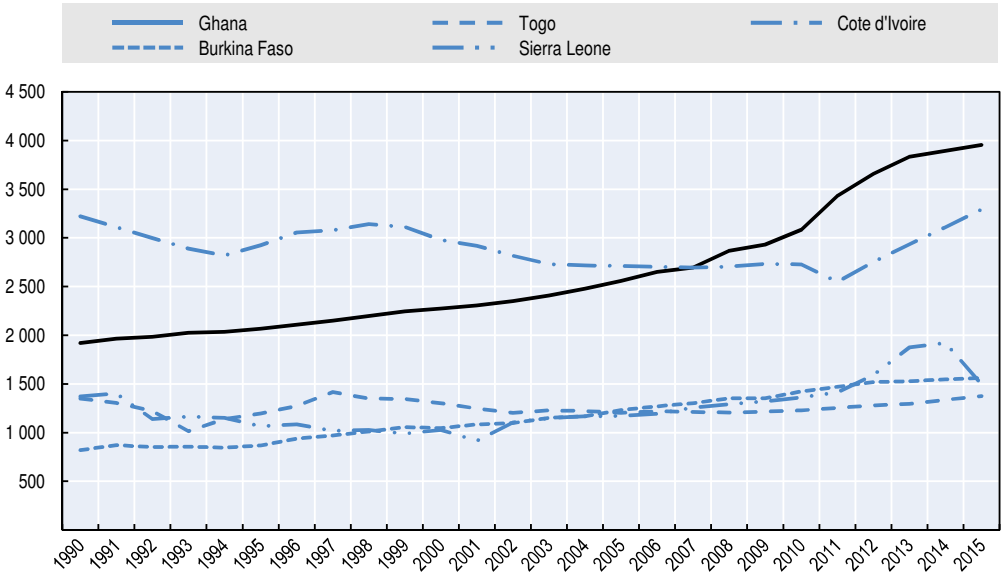
Economic growth has been strong, but inequality remains a concern

Following the deteriorating economic situation in the 1970s, the economy contracted in the early 1980s and per capita income declined for several years in a row.[1] A far reaching Economic Reform Program (ERP) was introduced in 1983 with the assistance of the International Monetary Fund (Hutchful, 2002). Reforms included improvements in the cocoa sector, a reduction of the size of the public services, a mining sector reform, and the sale of non-performing state corporations. The purpose of these policies was to open up Ghana's economy to international trade and investors. This was achieved partly by creating a policy and legal regime that encouraged the migration of foreign expertise and capital into Ghana, and transforming Ghana's economy from a relatively closed, trade protected one to a more open, market driven one (Killick, 2008).

In 1992, Ghana held its first elections in over a decade, and in the course of the 1990s better managed to maintain a stable macroeconomic environment while introducing structural reforms in agricultural, trade and exchange rate policies (Leite et al., 2000). In the past 25 years, Ghana has become a strong economic performer and GDP per capita has doubled from USD 1 920 in 1990 to USD 3 950 in 2015.[2] Ghana has surpassed the GDP per capita of its neighbours, including Côte d'Ivoire in 2007 (Figure 2.1). Furthermore, the stability of its economy is reflected in annual GDP growth rates, which have not seen major fluctuations from 1985 to the financial crisis in 2007 (Figure 2.2). Progress has been made with poverty reduction, as the headcount ratio decreased from 51.7% in 1992 to 24.1% in 2013 (Figure 2.3), and important strides have also been made towards achieving several other targets under the Millennium Development Goals (UNDP/Government of Ghana, 2012).

Figure 2.1. **Ghana has experienced a steadily increasing GDP per capita over the past 25 years**

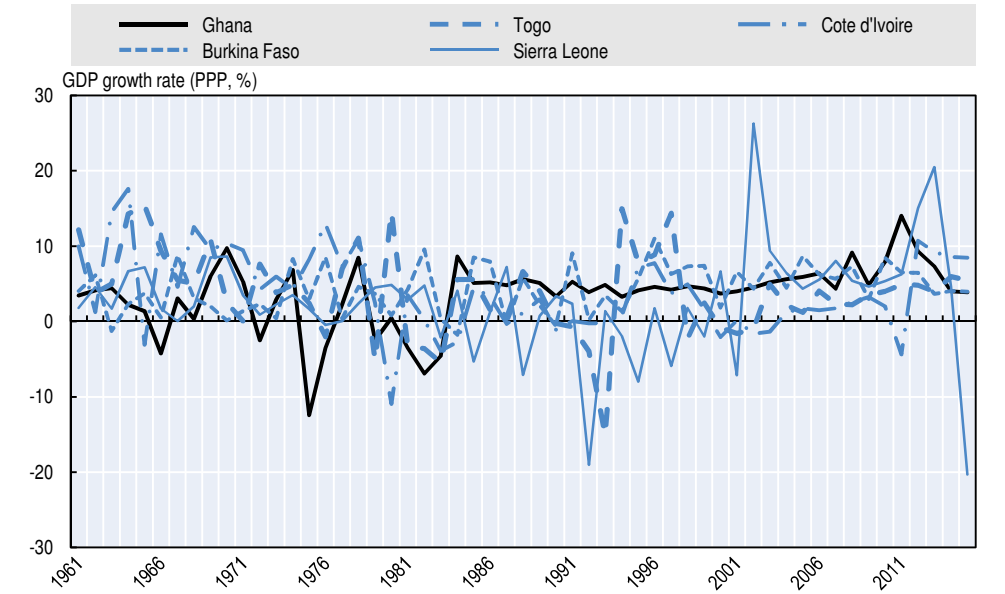
GDP per capita, PPP (constant 2011 international dollars)



Source: World Bank, World Development Indicators, 2016.

Figure 2.2. **Ghana has experienced fairly stable GDP growth since 1985**

Annual GDP growth rate (%)



Source: World Bank, World Development Indicators, 2016.

Figure 2.3. **Ghana experienced falling poverty but increasing inequality**
Incidence of poverty and extreme poverty (national poverty line); Gini index (%)

Source: Cooke et al., 2016.

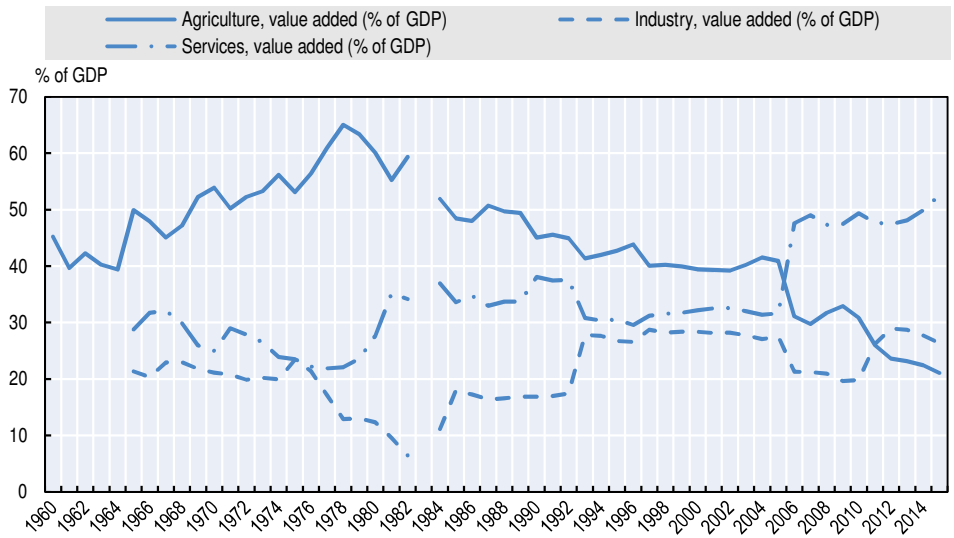
Since the early 2000s, economic policies explicitly focused on poverty reduction and the achievement of the MDGs, which led to the adoption of two national development policy frameworks: the Ghana Poverty Reduction Strategy I and II (Government of Ghana, 2003, 2010c). Less progress has been made with regard to income inequality, which suggests that rapid economic growth has benefited the non-poor more than the poor (Government of Ghana, 2014). In addition, the gradual structural change in the economy is generating an increase in inequality, in particular between rural and urban households, due to the fact that the agricultural sector has been on the decline, while the service sector has become the largest contributor to GDP (Figure 2.4). Urban-rural disparity follows the concentration of industries and jobs in higher-skill sectors, which are usually located in urban areas while the majority of the population resides in rural areas depending on agriculture for subsistence (UNDP, 2014).

Ghana was hailed as a model for economic growth and development for many years, but sentiments seem to have changed following the attainment of middle-income country status in 2010 and discovery of offshore oil reserves. According to the IMF, weakening of macroeconomic indicators including the inflation rate and public deficit have been due to over-optimistic revenue projections and increases in expenditure, as well as a too accommodating monetary policy (IMF, 2016). The economic situation has increasingly become

a source of discontent for the population as the rate of improvement in the standard of living has been slowing down while taxes as well as fuel and utility prices are rising (World Bank, 2016b).

Figure 2.4. **Agriculture is declining, while services are increasingly contributing to GDP**

Value added by sector, (% of GDP)



Source: World Bank, World Development Indicators, 2016.

Although it is likely that the GDP growth rate in 2016 is relatively low due to production problems in the oil sector, growth may pick up again in the subsequent years and fiscal consolidation seems on track (World Bank, 2016b). Apart from the production of oil, the macroeconomic outlook is affected by commodity prices and capital flows, and the risk of too high public expenditures in relation to revenues.

Immigration has a long history in Ghana

Ghana is named after a West African empire located in the modern day countries of Mali and Mauritania (Boahen, 2002). It is believed that some of the ethnic groups that make up Ghana today immigrated to Ghana from these earlier empires, and the ethnic and linguistic connections to the countries of the Sahel/Sahara belt remain very strong. Before the advent of colonialism, the principle connection the people living in (what is today referred to as) Ghana had with other parts of the world was through the Trans-Sahara trade routes between West Africa and North Africa and even the Arabian Gulf (Boahen, 2002;

Gocking, 2005). Many ethnic groups such as Hausa, Fulani and Arabs were active as pastoralists or traders and established themselves in Northern Ghana and the Ashanti Region (Peil, 1974).

The arrival of Europeans on West Africa's Atlantic coast from the 1480s onwards disrupted the existing trade flows and created new sources of revenue for the pre-colonial states of West Africa. Gold, ivory, and slaves were the first items traded with the rest of the world through the initial European contacts. This was later supplemented by the addition of cash crop agriculture, particularly cocoa and (to a much lesser extent) coffee (Gocking, 2005). To a very large extent, the trade patterns created from the late 15th century onward continue to this day.

The current boundaries of Ghana were established by the northward expansion of the British colony known in the 19th Century as the "Gold Coast". The British formally declared the Gold Coast a colony in 1874, which was accepted by the time of the Berlin Conference in 1884-5 (Boahen, 2002).[3] At the Conference, the British reserved a rectangular area which consisted of about 500kms of coastline and about 1000km forest and savannah hinterland. The territory to the north and west of the Gold Coast was claimed by the French. The territory to the east of the colony was claimed by the Germans. As the borders were arbitrarily drawn during the Berlin Conference, the Akan speaking people in Western Ghana, though linguistically and culturally homogenous, found themselves divided into two separate colonies and ultimately two separate countries. One of these colonies (the Gold Coast) was administered by the British. The other – later to become known as the Ivory Coast (Côte d'Ivoire) - was administered by the French.

Similar divisions of homogenous cultural groups occurred in Northern Ghana, where Dagomba/Mamprusi/Mossi groups are divided between the Gold Coast and the French colony of Upper Volta (present day Burkina Faso). In Eastern Ghana, the Ewe ethnic group, following the Berlin Conference were divided between three colonial powers - the British in the east, the French colony of Benin in the west, and the German colony of Togoland in the centre. The Germans lost control of their Togoland colony after the First World War. In 1919, the United Kingdom annexed the eastern part of German Togoland to the Gold Coast colony, and the French administered the remainder of the colony as a distinct French colony. This meant that the Ewe continued to be divided between two colonies and countries – French speaking Togo and English speaking Gold Coast/Ghana.

Pre-independence immigration trends

The impact of colonial state formation on modern day migration patterns are still evident. For example, the linguistic overlap on the Eastern border of Ghana, where there are Ewe speaking people on both sides of the Ghana-Togo

border, has resulted in the creation of borders which are extremely porous even in modern times (Anarfi et al., 2000). However, for other Ghanaians that do not share a language with Togolese, an English speaking country might be a more attractive destination.

By the end of the first quarter of the twentieth century, Ghana was a significant destination point for West African migrants, and also for migrants from the sub-region as a whole. The reasons for this were economic – Ghana was the wealthiest economy in West Africa, with significant mineral deposits and cash crop agricultural activities (Arhin, 1978). Indeed, the level of economic activity was such that Ghana was facing a significant labour shortage for its farms and its mines (Anarfi and Kwankye, 2003). Shortages in mining were partly due to the fact that the ethnic group in closest proximity to the mines - the Akan – were not culturally predisposed to undertaking underground mining work as they believed that such work was inappropriate (Arhin, 1978). In addition, the Akan could reasonably subsist on cultivation of traditional food crops, hunting, and fishing.

The labour shortage was exacerbated by an increase in cocoa prices in the 1930s, which provided a source of considerable income to many regions in the mining belt of the southern Gold Coast. The colonial government and the Gold Coast's mining companies were compelled to import labour from other countries, including neighbouring countries but also Liberia, Nigeria and Sierra Leone. Adepoju (1983) argues that, until the 1960s, Ghana's relative affluence made the country the "gold coast" for thousands of immigrants from West Africa, particularly Burkina Faso, Nigeria and Togo. This trend continued until the 1970s, when Nigeria, due to a booming oil-based economy, replaced Ghana as the primary destination for migrants in West Africa.

Census data in this period shows the extent of migration into Southern Ghana from the rest of West Africa. In the 1913 population census it was reported that the number of African foreigners working in Ghana was around 4 thousand. By 1931, this figure had increased to almost 300 thousand (Cardinal, 1931), with the vast majority coming from Upper Volta.[4] Anarfi and Kwankye (2003) suggest that the people from entire villages in Upper Volta moved to Gold Coast during the second and third decades of the 20th century. In addition to the economic appeal of Gold Coast, there were push factors causing people to move to Ghana. For example, there were droughts, a famine, and ethnic conflict in Upper Volta in the 1920s.

The closest English speaking country to Ghana is Nigeria. Indeed, in the 19th century, the British administered Ghana and Nigeria as part of a larger West African colony headquartered at Freetown, Sierra Leone (Boahen, 2002). The cultural and social links between Ghana and Nigeria are therefore historically strong, and migration between the two countries has been taking place over the last 100 years. Even before the colonial connection between the two countries,

there was a well-worn trade route between the Hausa speaking kingdoms of Northern Nigeria and central and northern Ghanaian kingdoms such as the Gonja and the Mamprugu.

Recent migration trends and selected groups of immigrants

The 1960s were a highpoint of inward migration into Ghana, and in 1960 the number of non-Ghanaians living in Ghana was 2 million people or close to one in eight of the population (Boahen, 1966). In addition to the economic incentives mentioned before, there were significant political incentives to immigrate to Ghana. Ghana was nominally independent as early as 1951,[5] and adopted pan-Africanist political and immigration policies designed to attract other Africans to Ghana. Several later African presidents visited or lived in Ghana in the 1940s and 1950s, including those of Malawi, Nigeria, Sierra Leone, Zambia and Zimbabwe. Ghana became a hub for anti-colonial African leaders and dissidents even before it became fully independent itself. Its first citizenship laws were crafted to allow for persons of African descent present in the country to apply for citizenship, and the government invited high profile foreigners to apply for citizenship and live in Ghana.

Nevertheless, in the decades following formal independence from Britain in 1957, a series of unprecedented economic and political crises took place. The country experienced frequent regime changes alternating between military and civilian governments, and economic decline, in particular in the cocoa and gold mining industries. This made the country increasingly unattractive to labour migrants and encouraged the emigration of Ghanaian workers, mostly to Côte d'Ivoire and Nigeria. While Ghana was a country of net immigration up until the 1970s, by the 1980s the country was experiencing significant outmigration of educated and skilled professionals (Quartey, 2009).

The return to a functioning multi-party democratic structure and a new Constitution in 1992 led to a period of political stability, which has continued through to the present day (Eberhardt and Teal, 2010) and has allowed Ghana to start attracting a growing number of migrants again. Between 1992 and 2016, Ghana has completed six successful democratic multi-party elections. The elections have resulted in peaceful transitions of power from one political party to another three times. This is unprecedented in contemporary Africa, and has contributed to the perception amongst many immigrants that Ghana is a peaceful, stable country.

According to the Ghana Statistical Service (GSS), the proportion of Ghanaians by birth increased from 87.7% in 1960 to 93.4% in 1970, decreased to 92.2% in 2000 and increased again to 96.6% in 2010. The remaining population in the latter year was either Ghanaian by naturalisation (0.9%) or non-Ghanaian (Ghana Statistical Service, 2013, Table 4.10). The proportion of

the population that was born abroad showed a decreasing trend from 1960 (8.3%) to 1984 (0.6%), and subsequently increased to 1.1% in 2000 and 1.3% in 2010. Most of those born abroad had their place of birth in another country of ECOWAS, while other African and non-African countries each constituted 0.1% of the population in 2010 (Ghana Statistical Service, 2013, Table 4.11). Nigerians, Togolese and the Burkinabe are the largest groups among West African nationals.

Immigration from Nigeria

As noted before, Nigerians have been engaging in trade in various communities in Ghana for centuries. At the start of the 1960s, Nigeria was the main source country of migration to Ghana, owing to the relative economic prosperity of Ghana and the fact that the country is the closest English speaking country to Nigeria. Many prominent Ghanaian citizens – including judges and parliamentarians – are of Nigerian descent (Addo, 1982; Adepoju, 1983). The 1960s witnessed some changes as anti–immigrant feelings began to increase in the face of a worsening economic situation and immigrants – particularly Nigerian immigrants – were blamed for this. In 1969, the Government of Ghana expelled all Nigerians living in Ghana without a residence permit. Return migration was further stimulated by the oil boom in Nigeria and the reversal of the relative economic fortunes of the two countries. Conversely, and more than a decade later in 1983, political tensions between Ghana and Nigeria, together with falling oil prices, led Nigeria to deport large numbers of Ghanaian workers (though many returned in the late 1980s (Shaw, 2007)). Migration to and from Ghana has been predominantly regional in scope, but this deportation also marked the beginning of a broader dispersion of Ghanaian emigration, with many highly-skilled workers moving further afield in search of employment to countries such as Germany, the United Kingdom and the United States.

Nigerians have been active in retail trading in many Ghanaian markets for decades (the role of immigrants in retail trading will be discussed in more detail in Chapter 5). Many Nigerians have been involved in trade in diamonds, vehicles, building materials and related activities. Nigerian banks, telecommunication and other companies have also invested in the Ghanaian economy. This has further increased migration of professionals and their families from Nigeria to Ghana to manage investments and activities. The number of Nigerian migrants is also a function of international policy, as Nigeria is a Member State of ECOWAS. Under the 1979 Protocol relating to the Free Movement of Persons, ECOWAS citizens have the right to enter Ghana without a visa for stays of up to 90 days.

In sum, Nigerian migration to Ghana is explained by three main factors - political (i.e. democratic culture and security), economic, and historical factors. The combination of these three factors combine to make Ghana an attractive destination for Nigerian migrants.

Immigration from Lebanon and the Middle East

Ghana's Lebanese population, though comparatively small, has a prominent economic profile and consequently exerts an influence disproportionate to their numbers. Lebanese settlers to West Africa at the beginning of the 20th century came with colonialists, but in contrast to many of the latter, they intended to make West Africa their permanent home and there was little oscillation between their home societies and their new West African domiciles. Many among the first wave of Lebanese immigrants were escaping civil war, famine, and overpopulation in the Middle East. They were also evading an uncertain citizenship status – the Middle East was under the control of the Ottoman Empire, and the Lebanese were reluctant to be classified as Turks and consequently become subject to conscription by the Turkish Army. The wave of migration in this period resulted in the creation of a Lebanese diaspora with representation not only in West Africa, but in Australasia and the United States (Hourani, 1992). Additional waves occurred in 1975 when civil war broke out in Lebanon, and in 1982 after the Israeli invasion.

By the beginning of this twenty first century, companies owned by Lebanese immigrants ranged from cosmetics and steel industries to broadcasting stations and one of the largest cellular phone networks in Ghana (Akyeampong, 2006). They had also become important actors in retail trade in Ghana and elsewhere, often acting as middlemen between the local population and European importers.

The Lebanese of Ghana are generally considered a wealthy group, consisting of businessmen and industrialists concentrated in Accra and Kumasi, where some Lebanese families have long standing timber interests. They are generally well educated, possibly both in Ghana and Lebanon. Lebanese immigrants are generally naturalised citizens, or were born in Ghana to the parents of naturalised citizens. They have remained a separate subgroup by virtue of the fact that they only rarely marry indigenous Ghanaians. It has been their practice to marry other Ghanaians of Lebanese descent, or to marry Lebanese persons sent to them from Lebanon (Leighton, 1979).

Immigration from Togo

After World War 1, the German colony of Togo was divided into a Western part of the territory which was to be annexed to the British Gold Coast, and the Eastern part of it was to become French Togoland. The challenge was to redraw a new line dividing German Togoland into two separate territories. In 1919, the 'Milner-Simon agreement' between the English and the French attributed 60% of German Togoland to France and 40% to Britain. The provisional line mainly followed natural features. According to Raunet (2016), when the Milner-Simon line cut communities in two, villages could decide whether they wanted to be under British or French rule and had six months to relocate on either side of the line.

Historical and cultural links with Togo have made the country an important source of migration into Ghana. This is particularly true of the first half of the twentieth century when economic opportunities made Ghana an attractive destination for Togolese labour. Ghana's more advanced economy meant that there were better employment opportunities, primarily in agriculture, and better educational opportunities and health services. According to the 1960 census, 280 thousand Togo nationals were in Ghana. The 1970 census shows a decline to 245 thousand – a reflection of Ghana's worsening economic climate and the resultant hostility towards immigration that this engendered (Zacharia and Condé, 1978). In more recent years, a fairly steady stream of migrants has continued between the two countries, with migration to Ghana dominating migration to Togo due to the stronger economy of the former.

Immigration from other West African Countries – the Zongos

The remnants of Ghana's pre-colonial and colonial West African migrants of largely Burkinabe and Malian stock are concentrated in urban inner city informal settlements locally called "Zongos". Zongo means "Travelers camps" or "Stop-over" in Hausa, the language which, though originally Nigerian, is comprehensible to many people living in Northern Ghana, Burkina Faso and Mali. Major urban communities in Ghana often have a Zongo, and are associated with marginalisation. Accra has a number of Zongo settlements, including Nima, Ashaiman, and Old Fadamaa. The living conditions in these Zongo's are usually among the worst in the city. Sanitation is poor, buildings are overcrowded, health facilities are inadequate. Access to basic services such as water and electricity may be a challenge.

The Zongos have been described as "the new face of poverty in Ghana". Ghana has a fairly stark economic divide between its more prosperous and more densely populated south and the more sparsely populated north. The three Northern regions are the poorest in Ghana. Traditionally, the primary source of internal migration in Ghana has been the movement of labour from Northern Ghana to work in agricultural and industrial sectors in the south. People from Northern Ghana have cultural and religious similarities with international migrant communities from Burkina Faso. Hence the internal migrants from Northern Ghana have a shared sense of identity and perception of marginalisation as external migrants from Mali or Burkina Faso, and northern Zongos are somewhat less marginalised (Allman, 2009).

Attitudes towards international migrants have often been positive

Ghanaian attitudes towards international immigrants have ebbed and flowed over the last century, partly in accordance with economic cycles. Though generally welcoming of immigrants and marginal groups, there have been

policies aiming to constrain the economic activities of immigrants, and the attitude of some Ghanaians towards categories of immigrants has at times also been negative.

As noted before, by the end of the 1960s, Ghana's economy was doing less well, and the blame fell on Ghana's immigrant population of traders and merchants. The government of Ghana responded with legislation and policies placing constraints on immigration and economic activity of immigrants. The two most notable were the Residence Permits Compliance Order (RPCO) of 1970 and the Ghanaian Business Promotion Act (GBPA) No 334 of 1970. The latter Act reserved about 37 economic activities exclusively for nationals, including commercial transport by land, bakery, printing, manufacture of cement bricks and advertising and publicity. Furthermore, the Act prohibited foreigners from trading in any market or to engage in petty trading, hawking or selling from a kiosk.

The RPCO resulted in the removal of 140 thousand Nigerians from Ghana (Afolayan, 1988). It also affected, to a lesser extent, citizens from other parts of West Africa. Nigerian merchants were compelled to leave behind valuable possessions and occasionally children in foster care. The intended effect of the mass expulsion was to create jobs for Ghanaians and boost the economy, but the action resulted in major disruption of the cocoa and retail business sectors in the immediate post-expulsion period (Aremu & Ajayi, 2014).

The RPCO marks the only mass expulsion in the history of post-independence Ghana. However, Ghana's attitude towards its small but influential and high profile immigrant population has not always been positive. This is reflected in the social marginalization of residents of Zongo communities, while the Middle Eastern community has occasionally complained about their treatment. The latter have protested about their exclusion from political activity and unfounded accusations of fraudulent business practices. There also continue to be complaints, and sometimes even violent clashes, on issues such as reservation of certain economic activities to Ghanaians only.

Another concern is the frequent and often violent clashes between nomadic Fulani herdsmen and local farmers. The Fulani are a cattle rearing, nomadic group found throughout West Africa. Like pastoralists elsewhere, they have clashed with local farmers over grazing lands, sometimes violently. The first reported case of Fulani-farmers conflict was in 1997, when some farmers in the Ashanti region reported to the local assembly that a group of Fulani herders were encroaching on their traditional lands (Kuusaana & Bukari, 2015). Following this report, the Government of Ghana dispatched security officials to enforce their removal. Subsequently, Tonah (2002) reported that in 1999 residents had killed three Fulani pastoralists, while many others sustained gunshot wounds. This did not, however, stop the Fulani from their annual southern migration to

obtain more fertile grass on the Afram Plains near Ghana's Atlantic coast, or in the equally fertile grasslands of the forest belt from their customarily arid and Sahelian grazing lands.

Nevertheless, there seems to be some truth to the stereotype of Ghanaians as welcoming to strangers and foreigners.[6] For instance, the majority of Ghanaians claim to support the free movement of people in order to work or trade in the West African region (57%). This is high in comparison with Southern, Central and North Africa, although lower than most other countries in West Africa (Afrobarometer, 2016).[7]

Governance – legislation and policies have become more migrant friendly since the 1990s

Ghana's Constitution (1992) empowers its institutions to implement labour and immigration laws, and includes the obligation to respect the human rights and freedoms of all persons in Ghana, including foreign nationals, irrespective of their country of birth or legal status. For example, under the provisions of the Constitution, no person shall be required to perform forced labour.

From the mid-1990s, the legal architecture for immigration and investment was comprehensively restructured to allow for and encourage foreign talent and expertise into the country. It was also reformed with the intention of encouraging Ghana's well educated and well trained labour force (much of which had migrated out of Ghana during the economic downturn of the 1970s and 1980s) to return home. Important changes to Ghana's legislation are summarised in Table 2.1.

The reform of the citizenship laws demonstrates the government of Ghana's commitment to the creation of a society that was more welcoming to foreigners and investment. In the 1960s, as part of a wave of xenophobic sentiment occasioned by the collapse of the economy, several anti-foreigner laws were passed. The 1969 Constitution introduced a clause designed to prevent Ghanaians from holding the citizenship of Ghana and another country simultaneously. This meant that citizens – particularly citizens of English, Lebanese and Nigerian descent who had become naturalised Ghanaians - were compelled to choose between maintaining their Ghanaian citizenship and abandoning the citizenships of the countries of their birth. In 1996, Ghana amended its 1992 Constitution to allow for Ghanaians to hold the citizenship of countries other than Ghana. Although this was subject to restrictions, as persons who held dual citizenship were barred from certain key positions in government, it marked a change in policies.

It is important that the Constitution of Ghana broadens the availability of citizenship to non-Ghanaian long-term residents. This is because Ghana's constitution does not give Ghanaians and non-Ghanaians the same levels of

protection (CDD, 2005). For example, the constitution places restrictions on the activities of non-Ghanaians in the economy in terms of owning land. Non-citizens are effectively barred from acquiring land permanently, or acquiring an interest in land for a period exceeding 50 years.[8]

Table 2.1. **Major legislation and regulations**

Statute	Contents
Citizenship Act, 2000, Citizenship Regulations, 2001	• Grants citizenship by birth and marriage • Regulates dual citizenship
Immigration Act 2000 (Act 573), Immigration Regulations 2001, LI 1691	• Provides admission, entry, employment and removal conditions for migrants. Replaced the "Aliens Act, 1963" • Creates avenue for citizenship for persons who have lived in Ghana for 5 years continuously • Creates avenue for citizenship or a "right of abode" for all persons in the "black diaspora" who wish to return to Ghana
Labour Act, 2003	• Grants permission for immigrant labour to work in Ghana • Includes other provisions providing protections for all workers equally, i.e. both citizens and non-citizens who are part of the labour force
Refugee Law, 1992 (PNDCL 305D)	• Grants refugees status in accordance with UN Conventions and AU Protocols and establishes a Refugee Board • Addresses the resettlement of refugees, either in Ghana or in their countries of origin
The Ghana Investment Protection Act, 1994, Act 1994 (Act 478) Amended again in 2013	Establishes the Ghana Investment Promotion Centre to implement policies encouraging investment and foreign trained individuals to enter Ghana, via residence permits.
Ghana Free Zone Act 1995 (Act 504)	Establishes Free Zones to encourage foreign investment, permits the granting of permits to foreign workers.
Minerals and Mining Act 2006, (Act 703)	Permits holders of mineral rights immigration quotas by specified numbers of expatriate personal, provides tax incentives, repatriation of profits.
Petroleum Act (1984) (PNDC Law 84)	Permits holders of petroleum rights immigration quotas by specified numbers of expatriate personal, provides tax incentives, repatriation of profits.

Legislation focusing specifically on immigrants includes the Immigration Act 573 of 2000, which consolidates various laws on immigration and provides for admission, residence, employment, and removal of foreign nationals, and a host of other immigration related issues. The Immigration Act replaces the Aliens Act of 1963, and the change in the name of the Act is itself indicative of the policy shift to a more pro-immigration stance.

The adjoining Immigration Regulations of 2001 (LI 1691) provide guidelines on the implementation of Act 573 (Devillard et al., 2015, p. 169).[9] A key role is taken by the immigrant quota committee, which advises the Minister of Interior on the decision to grant a work permit, and this committee has authorised other organisations to approve certain work permit decisions.[10] According to the Ghana Immigration Service (2015), 38 411 permits were granted by the immigration quota committee in 2015, and 36 691 were granted in 2014.

One of the primary innovations of the Immigration Act (in sections 14 and 15) is to allow migrants who have lived in Ghana continuously for five years and are of good standing, and spouses of Ghanaian citizens who have lived in Ghana continuously for two years, to qualify for indefinite residence.

The Labour Act of 2003 (Act 651, 2003) consolidates laws on labour recruitment, employer, trade union, and industrial relations and reflects ratified ILO Conventions. The Act also provides for equal treatment of immigrants with nationals. There is no exception to this principle, and both groups benefit from all obligations and rights from the labour legislation, including those regarding trade unions.

Foreigners may also benefit from the Ghana Investment Promotion Centre (GIPC) Act of 1994 (Act 478).This Act gives firms with foreign participation and a capital of 10 000 USD and above an automatic quota comprised of one to four foreign workers (depending on the amount of said capital). The Act stipulates investment requirements for (partially) foreign-owned enterprises, immigration quotas based on the lack of specific skills locally, and reserves certain types of enterprises for Ghanaian citizens, such as working in selected retail or service enterprises (sale of goods in a market, beauty salons, and barber shops), gambling enterprises, and the operation of taxi services with a fleet smaller than ten cars. The revision of the GIPC Act in 2013 (Act 865) expanded coverage to include mining and petroleum enterprises, increased foreign capital investment requirements, and expanded the list of reserved enterprises to include printing of telecommunications recharge scratch cards, production of stationery, retail of pharmaceutical products, and production and sale of sachet water (PriceWaterhouseCooper (Ghana) Ltd., 2013).

In addition to the quota arrangement mentioned above, the implementation of the Free Zone Act of 2002 (Act 504) provides for the establishment and regulation of import and export free zones, including provisions on the employment of foreign nationals in such zones.

Migration policies

While Ghana has had a number of laws and regulations regarding the employment and protection of immigrants and emigrants for many years, it was not until 2016 that the National Migration Policy (NMP) was adopted (Government of Ghana, 2015). The goal of the NMP is '…to promote the benefits and minimise the costs of internal and international migration through legal means with the rights and security of migrants well respected in order to ensure socioeconomic development in Ghana' (Government of Ghana, 2015, p. 1). The efforts to manage migration for development are led by an Inter-Ministerial Steering Committee on Migration (IMSCM), which was responsible for the formulation of the NMP. Following its adoption, the policy envisages the establishment of the Ghana National Commission on Migration (GNCM) to oversee its implementation.

Apart from the Inter-Ministerial Steering Committee, various parts of government are involved in the governance of migration. These include the Migration Unit of the Ministry of Interior, which was inaugurated in 2010 with the aim to provide support to the Government's efforts to better integrate migration into its national development framework, while also playing a pivotal role in the implementation of the NMP.

The Ghana Immigration Service, established in the 1950s, is also part of the Ministry of Interior, and manages immigration controls that regulate and facilitate the movement of people across the borders of Ghana. Furthermore, the Ministry of Employment (Labour Department) serves as an intermediary on the international labour market between employers and Ghanaian job seekers, and monitors and licenses private employment agencies. The Ministry of Foreign Affairs maintains a Diaspora Affairs Bureau, which is concerned with nationals abroad, including their protection. The Ministry of Gender, Children and Social Protection is responsible for the fight against human trafficking, while the Ministry of Finance and the Bank of Ghana implement policies regarding remittances (inflows and outflows). Other ministries and public institutions which are concerned with migration include the National Development Planning Commission, the Ministry of Health, the Ministry of Justice, and the Ministry of Education, among others.

Actions to be taken under the NMP include (Government of Ghana, 2015, p. 39):

(a) Harmonise international conventions and protocols, which Ghana has signed or ratified.

(b) Review national migration laws and policies to avoid duplication.

(c) Conduct a migration stakeholder mapping and capability analysis with regards to the NMP.

(d) Empower the Migration Unit to spearhead implementation, monitoring, and evaluation of the NMP during the transition period.

Economic Community of West African States (ECOWAS)

The international conventions which have had the most impact on domestic policy are the ECOWAS Protocols. ECOWAS was established in 1975 as a sub-regional organisation with the aim of encouraging economic and security cooperation among 16 countries of West Africa.[11] ECOWAS, has as one of its foundational principles the free movement of labour. Its foundation document - the Treaty of the Economic Community of West African States - provides in article 2 that

> *"the establishment of a common market through the removal, between Member States, of obstacles to the free movement of persons, goods, services and capital, and to the right of residence and establishment".*

It was mentioned before that under the 1979 Protocol relating to the Free Movement of Persons, ECOWAS citizens have the right to enter Ghana without a visa for stays of up to 90 days. Nevertheless, several factors are still impeding effective inter-regional mobility within the ECOWAS region. Member States face a significant delay in transposing the 1979 Protocol and supplementary protocols into law. While the right of entry and the abolition of visa requirements for a 90-day stay have been implemented in all countries, less progress can be noted as regards the right of residence, the right of establishment and access to employment.

According to the ECOWAS 1986 Supplementary Protocol, community citizens who are nationals of other Member States have the right of residence on the territory of a Member State for the purpose of seeking and taking up income-earning employment (Article 2). However, in Ghana (and in the majority of the ECOWAS countries), national labour legislation does not set specific provisions for access to employment for ECOWAS citizens. Therefore, the common labour immigration system also applies to them, although administrative practices seem to take on a more tolerant approach (Devillard et al., 2015).

Conclusions

Since the adoption of the 1992 Constitution, migration policies have become gradually more welcoming in Ghana. Indeed, immigration legislation and regulations have recognised the contribution immigrants can make, and the benefits generated by the employment of foreign nationals. This period culminated in the adoption of a national migration policy which was formally launched in 2016.

The policy aims to mainstream migration into other development policies, and appears to support a coherent whole-of-government approach. At the same time, the Action Plan identifies a number of actions that should be taken to implement the policy. These actions range from the establishment of an appropriate institutional framework, including a new Ghana National Commission on Migration, to the promotion of effective migration data management.

Effective data management should cover labour migration, and become part of labour market information systems linking labour market needs and migration policies. Labour market information systems should not only be fed by regular data and information on foreign-born and native-born workers, but also be embedded in institutional arrangements which allow for an articulation of employment policy with migration policy, as well as an adequate representation of social partners (Sparreboom, 2013).

Notes

1. Measured in local currency, income per capita decreased by 6.2% in 1981, 9.9% in 1982 and 7.8% in 1983. No negative per capita growth rates have been recorded since that time (World Bank, 2016).
2. Measured in constant 2011 international dollars.
3. The Berlin Conference was held in Berlin between 15 November 1884 and 26 November 1885. The Conference brought together 14 European powers and the United States to establish ground rules for the colonisation of Africa. This became known as the "Scramble for Africa". The conference was organised by German Chancellor Otto von Bismarck and led to the establishment of European colonies across Africa. By 1914, Africa had been divided into 50 countries among the conference participants.
4. This was not only true of Ghana. Upper Volta was basically the labour reserve of West Africa throughout the 20th century, and considerable migration also occurred from Upper Volta to Côte d'Ivoire.
5. De Jure independence was granted by the British in 1957. However, by 1951, Ghana was run by majority African government with an African Prime Minister.
6. The standard Ghanaian greeting, inscribed in large letters at the airport and often spoken in cultural contexts is "Akwaaba", or welcome.
7. The Afrobarometer surveys of public opinions of political, economic and social issues in 38 African countries. See *http://www.afrobarometer.org/*.
8. 1992 Constitution, Article 296.
9. The following guidelines are important with regard to work permits:
   - Regulation 16.1: The potential employer is requested to submit an application for a work permit through the Director of Immigration.
   - Act 573, Sect. 27: The Immigrant Quota Committee, an inter-ministry institution, considers work permit applications and submits its recommendations to the Minister of Interior who issues the permit.
   - Act 573, Sect. 27.3: The delivery of a work permit is based on the following conditions:
     - the considered individual is not a "prohibited immigrant, a visitor, tourist, transit passenger or student";
     - he/she resides either abroad or legally in Ghana;
     - he/she is qualified for the considered position; and
     - his/her employment "will be to the benefit generally of Ghana".
10. Ghana Investment Promotion Council, the Free Zones Board, and the Minerals Commission can allocate permits based on the investment of the company making the request.
11. The sixteen countries are Benin, Burkina Faso, Cape Verde, Cote d'Ivoire, Gambia, Ghana, Guinea, Guinea-Bissau, Liberia, Mali, Niger, Nigeria, Senegal, Sierra Leone and Togo.

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Chapter 3

Immigrant integration in Ghana: Labour market outcomes and human capital

This chapter examines labour markets in Ghana based on a review of labour market indicators concerning immigrant workers in comparison with native-born workers. Following sections on the volume and nature of employment, the chapter addresses occupational change using a demographic decomposition method. Comparisons are made between the human capital of native-born and foreign-born workers, including with regard to skills mismatch.

Chapter 2 demonstrated the long history of immigration in Ghana, looked at the main groups of immigrants in more detail and highlighted the current immigration policy framework. This chapter aims to conduct an empirical investigation of the labour market position of immigrants in Ghana based on a review of labour market indicators regarding migrant workers in comparison with native-born workers. The review will be complemented in Chapter 4 by a formal econometric examination of the labour market impact of immigration.

In this and following chapters an immigrant is defined as someone who was born abroad and is currently living in Ghana (see also Box 1.2 on definitions of immigrants). Foreign-born employment has increased rapidly in Ghana during the 2000s. Given that foreign-born workers are often relatively young, they help counter the ageing of the workforce, but their numbers are small in comparison to the native-born. The review in this chapter suggests that foreign-born workers respond to employment opportunities, and are often well-integrated in the labour market.

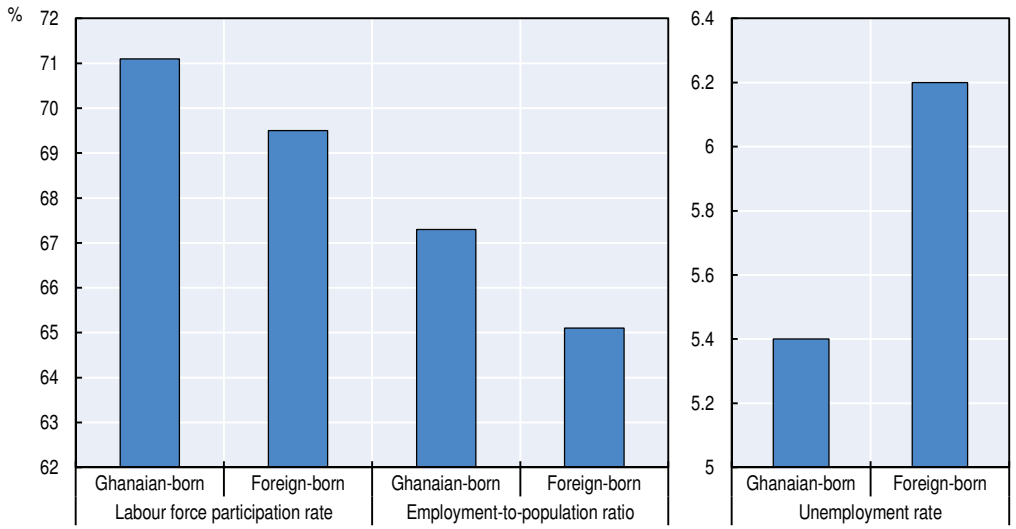
Differences in employment and unemployment between natives and immigrants mostly affect women

According to population census data, the foreign-born population in Ghana increased from 180 thousand persons in 2000 to 325 thousand persons in 2010, while at the same time the foreign-born labour force increased from 75 to 170 thousand persons (0.9% and 1.6% of the labour force, respectively). In terms of participation, employment and unemployment, the differences between Ghanaian-born and foreign-born workers appear limited, but levels and trends are noteworthy in particular regarding the position of women.

In 2010, the labour force participation rate and the employment-to-population ratio of the foreign-born population were below those of the Ghanaian-born population (Figure 3.1). The difference in the labour force participation rate, at less than two percentage points, was small, while the difference in the employment-to-population rate was just above two percentage points. Gender differentials in labour market outcomes are important, and the employment-to-population rate is higher for (native-born) men than for (native-born) women (see Annex Table 3.A1.2).

Figure 3.1. **Differences in labour force participation and employment rates between the native- and foreign-born populations appear to be limited ...**

Labour force participation, employment and unemployment by place of birth, 2010 (%)



Source: Authors' own work based on Minnesota Population Center (2015), Integrated Public Use Microdata Series, *http://doi.org/10.18128/D020.V6.5*; see also Annex Table 3.A1.2.

Differences between male Ghanaian-born and foreign-born workers in terms of the labour force participation rate and the employment-to-population ratio became negative from 2000 to 2010 (i.e. both were higher for foreign-born workers in 2010 but not in 2000, see Figure 3.2A). However, these differences remained positive and became larger for women (i.e. foreign-born women became even less likely to participate in the labour force or to be employed in comparison with native women, see Figure 3.2B). Such gender differences may reflect various factors, including the unequal distribution of unpaid care and household work between women and men and sectoral employment patterns (ILO, 2016b) which will be discussed in later sections. In 2010, the employment-to-population ratio was 9.5 percentage points higher for Ghanaian-born women, and foreign-born women experienced a relatively high unemployment rate at 8.2%, compared with 5.8% for native-born women. Native-born and immigrant men faced similar unemployment rates close to 5% in 2010.

Figure 3.2. **... but are important for women, especially in 2010**

Differences between labour force participation, employment and unemployment by place of birth and sex (percentage points)

Note: The figure shows the rate for Ghanaian-born workers minus the rate for foreign-born workers for each of the three indicators.

Source: Authors' own work based on Minnesota Population Center (2015), Integrated Public Use Microdata Series, *http://doi.org/10.18128/D020.V6.5*; see also Annex Table 3.A1.2.

The average age of foreign-born workers has dropped

In 2000, the average age of foreign-born workers (employed or unemployed) was above the average age of Ghanaian-born workers (40 and 37 years, respectively). Foreign-born workers were overrepresented in the age groups 55-64 and 65+ and underrepresented in all other age groups (Figure 3.3A). By 2010 this situation had reversed, and foreign-born workers were overrepresented in the younger age groups (15-24 and 25-34, Figure 3.3B). The average age of foreign-born workers in 2010 had decreased by five years to 35 years, while the average age of Ghanaian-born workers remained more or less the same at 37 years.[1]

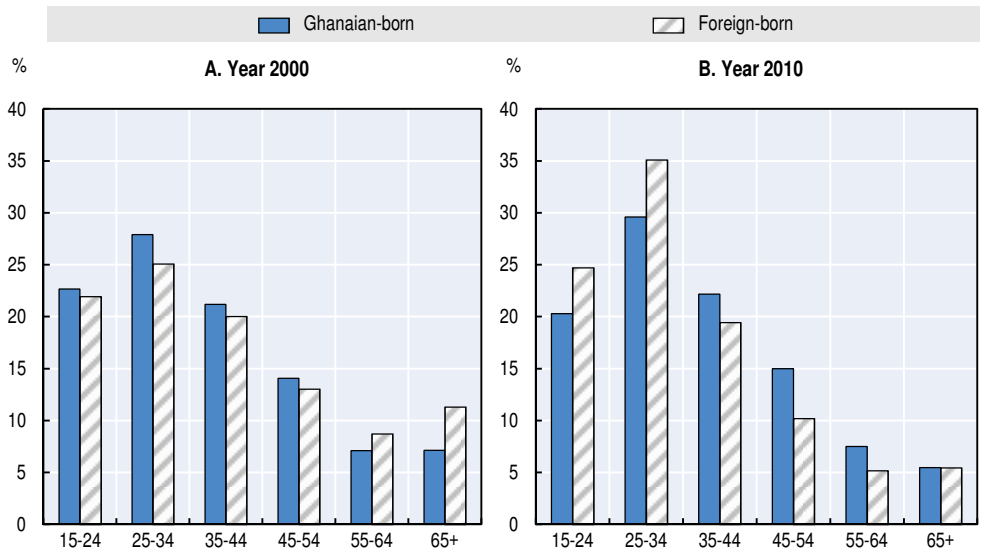
Because the Ghanaian-born labour force aged 65 and above shrank considerably from 2000 to 2010, the Ghanaian-born labour force as a whole was not ageing. However, the average age of workers aged 15-64 (thus excluding those 65 and above) increased from 34 to 35 years during this period. High rates of economic growth and increasing incomes during the first decade of the 2000s help to explain the reduction in labour force participation of the population aged 65 and above (see also Chapter 2).

Foreign-born youth counter ageing of the workforce

Given the strong growth of the foreign-born age group 15-24 in the labour force, and the relative decline in the Ghanaian-born labour force in this age

group, foreign-born workers seem to play a role in filling some of the gaps left by the changing demographic composition of the Ghanaian-born workforce. The same is suggested by the pattern of unemployment across age groups. The ratio of the youth unemployment rate to the adult unemployment rate was close to two for both foreign-born and Ghanaian-born workers in 2000, but had become far less favourable in 2010 for young Ghanaian-born workers than for foreign-born workers (3.0 and 2.0, respectively; Table 3.1). This movement should be seen in the context of a strong decrease in youth unemployment rates from 2000 to 2010 for both foreign-born and Ghanaian-born youth, while the unemployment rates for the two groups remained relatively close.

Figure 3.3. **Foreign-born workers have become younger than Ghanaian-born workers**
Labour force by age group and place of birth (%)



Source: Authors' own work based on Minnesota Population Center (2015), Integrated Public Use Microdata Series, *http://doi.org/10.18128/D020.V6.5*

Similar to unemployment rates across age groups, the unemployment rate for young female foreign-born workers (12.8%) was considerably higher than the rate for young male foreign-born workers (8.1%). The gap between these male and female rates (4.7 percentage points) is also larger than the gap between unemployment rates of young male and female native-born workers (1.8 percentage points). The same pattern is visible in the share of youth not in employment, education or training. NEET rates declined by about 10 percentage points from 2000 to 2010 for both Ghanaian-born and foreign-born youth (Figure 3.4). However, in 2010 the NEET rate for young female foreign-born workers was 29%, compared to 16% for young male foreign-born workers. The gap between male and female rates for Ghanaian-born workers was much smaller.

Table 3.1. **Strong decrease in youth unemployment rates over ten years**

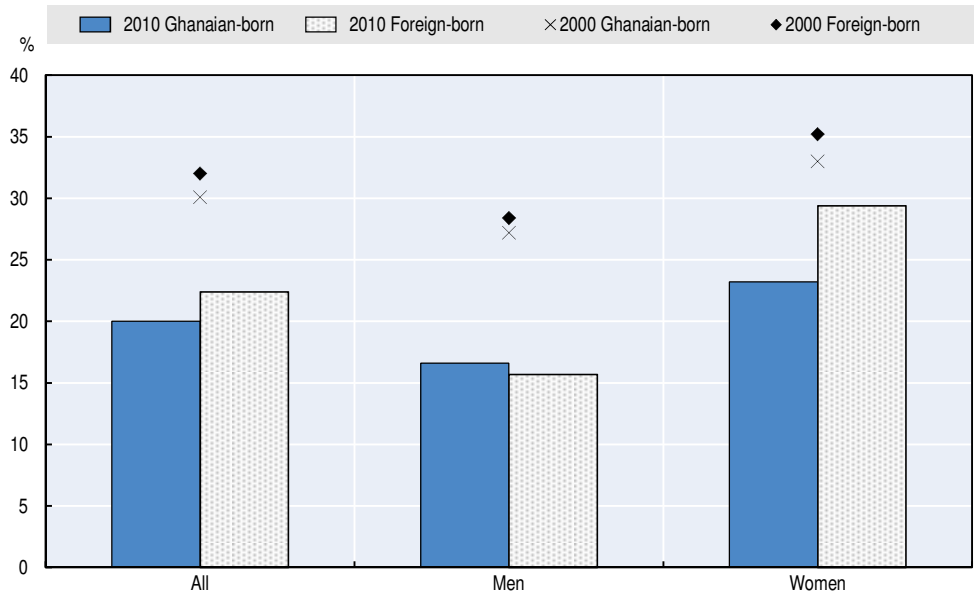
Youth unemployment indicators by place of birth, 2000 & 2010

		Youth unemployed (%)	Ratio of youth unemployment rate to adult unemployment rate	Share of youth unemployed in total unemployed (%)	Share of youth unemployed in youth population (%)
2000	Ghanaian-born	16.6	1.9	36.2	9.0
	Foreign-born	17.6	2.0	35.4	8.6
2010	Ghanaian-born	11.3	3.0	42.7	5.0
	Foreign-born	10.2	2.0	40.6	5.2

Source: Authors' own work based on Minnesota Population Center (2015), Integrated Public Use Microdata Series, *http://doi.org/10.18128/D020.V6.5*

Figure 3.4. **The share of youth not in employment, education or training decreased strongly for foreign-born men**

Share of youth not in employment, education or training, by sex, 2000 and 2010



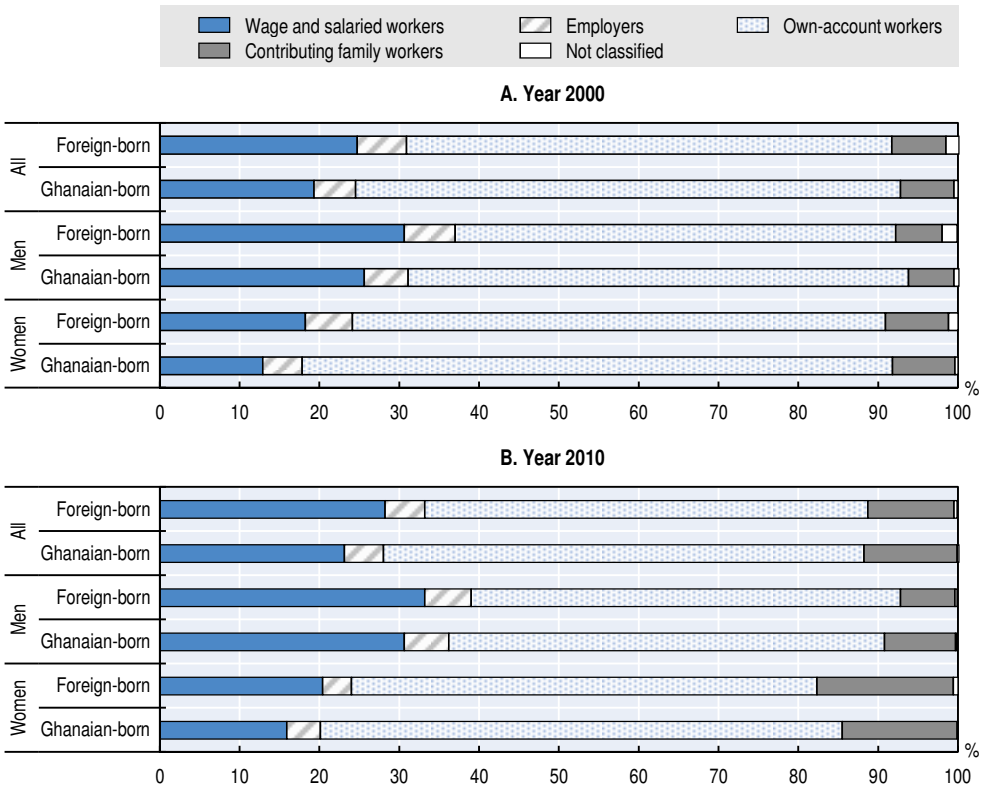
Source: Authors' own work based on Minnesota Population Center (2015), Integrated Public Use Microdata Series, *http://doi.org/10.18128/D020.V6.5*

Employment quality of foreign-born workers is relatively good

A widely used method to assess the quality of jobs is to consider vulnerable and non-vulnerable employment, which is based on the classification by status in employment. Own-account and contributing family workers are considered as being in vulnerable employment. These workers are less likely to have formal work arrangements, and are therefore more likely to lack elements associated with decent work such as adequate social protection and recourse to effective social dialogue mechanisms (ILO, 2016a; Sparreboom and Albee, 2011).

In 2000, almost three quarters of all workers in Ghana were in vulnerable employment, but this proportion was considerably lower for foreign-born workers (67.6%). The vulnerable employment rate decreased for all workers from 2000 to 2010, reaching 71.9% for Ghanaian-born workers and 66.3% for foreign-born workers. The decrease over the period was thus less pronounced for foreign-born workers, which may be due in part to the inflow of relatively young workers. Nevertheless, the level of vulnerable employment of foreign-born workers remained below the level for Ghanaian-born workers. Much of the difference between the two groups is due to the higher proportion of wage and salaried workers among foreign-born workers (Figure 3.5). In 2010, 28.2% of foreign-born workers were in wage or salaried employment, compared with 23.1% of Ghanaian-born workers. For both foreign-born and Ghanaian-born workers, the share of women in wage employment is lower than the commensurate share of men. Together with unfavourable employment and unemployment rates, the low share of foreign-born women underlines their more difficult labour market position.

Figure 3.5. **Wage employment has become more important for all workers**
Status in employment by place of birth (%)



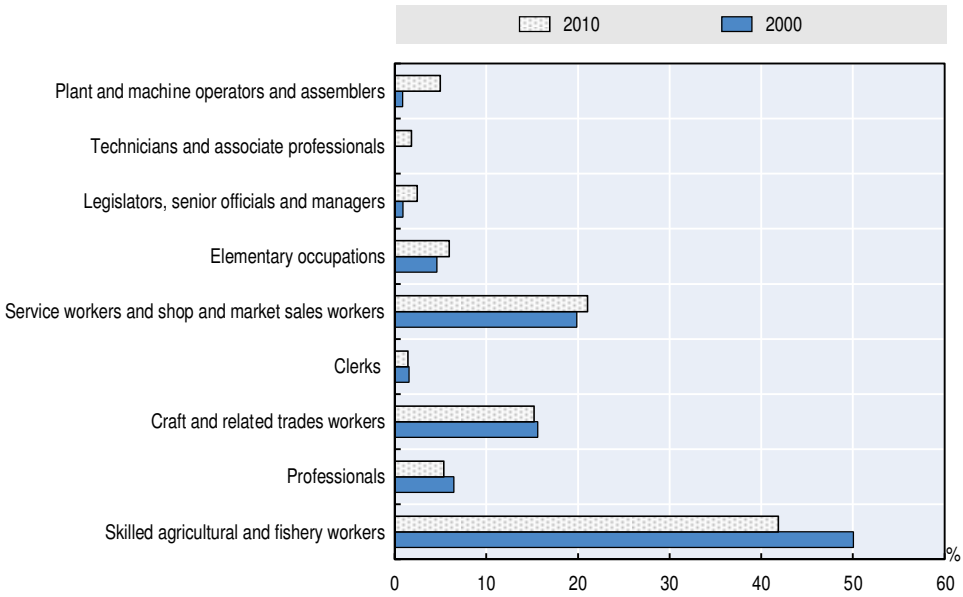
Source: Authors' own work based on Minnesota Population Center (2015), Integrated Public Use Microdata Series, *http://doi.org/10.18128/D020.V6.5*; see also Annex Table 3.A1.3.

Premature polarisation of the occupational distribution

The diminishing role of agriculture as a source of employment, which was highlighted before, is also evident in the occupational structure of the workforce, as skilled agricultural and fishery workers was the major group showing the largest decrease from 2000 to 2010. More surprising are the decreases in the shares of professionals, craft workers and clerks. Conversely, major groups of plant and machine operators, technicians and associate professionals and senior officials recorded the largest increases in employment shares (Figure 3.6). The same pattern is visible in the occupational distribution of men, but the occupational structure for women is different in that only the group of senior officials is one of the three groups with the largest increases (Annex Table 3.A1.4a). The remaining two groups showing large increases in female employment are service workers and elementary occupations. It is interesting to note that the group of service workers was the group with the largest increase for women, while it is the group showing the largest decrease for men. Service and shop work accounted for 31% of female employment in 2010, compared with 10% of male employment. Employment in agricultural occupations became less important for both men and women.

Figure 3.6. **Skilled agricultural and fishery workers experienced the largest relative decline**

Employment by major occupational group (%)



Source: Authors' own work based on Minnesota Population Center (2015), Integrated Public Use Microdata Series, *http://doi.org/10.18128/D020.V6.5*; see also Annex Table 3.A1.4a.

Following ILO (2014), we can make a distinction between high-skilled occupations (legislators, senior officials and managers; professionals; and technicians and associate professionals), medium-skilled occupations (clerks; service workers and shop and market sales workers; skilled agricultural and fishery workers; craft and related trade workers; and plant and machine operators and assemblers) and low-skilled occupations (elementary occupations). Average annual growth rates in these three groups are 5.9%, 2.8% and 5.9%, respectively. These rates may be compared with an average of 3.2% across all groups, which is driven by the large group of medium skill occupations. Growth rates are thus relatively high at both the bottom and the top of the distribution of occupations by level of skill, pointing at a polarisation of the occupational structure. Such a polarisation is not unique to Ghana, and has been widely discussed in the context of both developed and developing economies (Sparreboom and Tarvid, 2016). With regard to the latter, concerns have been raised about a premature deindustrialisation and loss of manufacturing jobs, which are often a major engine of job creation in emerging economies (Aryeetey and Baah-Boateng, 2015; ILO, 2015b). Although in Ghana employment in manufacturing was indeed stagnant from 2000 to 2010 (in relative terms), it is clear that the major cause of job loss in medium skill occupations was the decrease in the share of skilled agricultural workers.

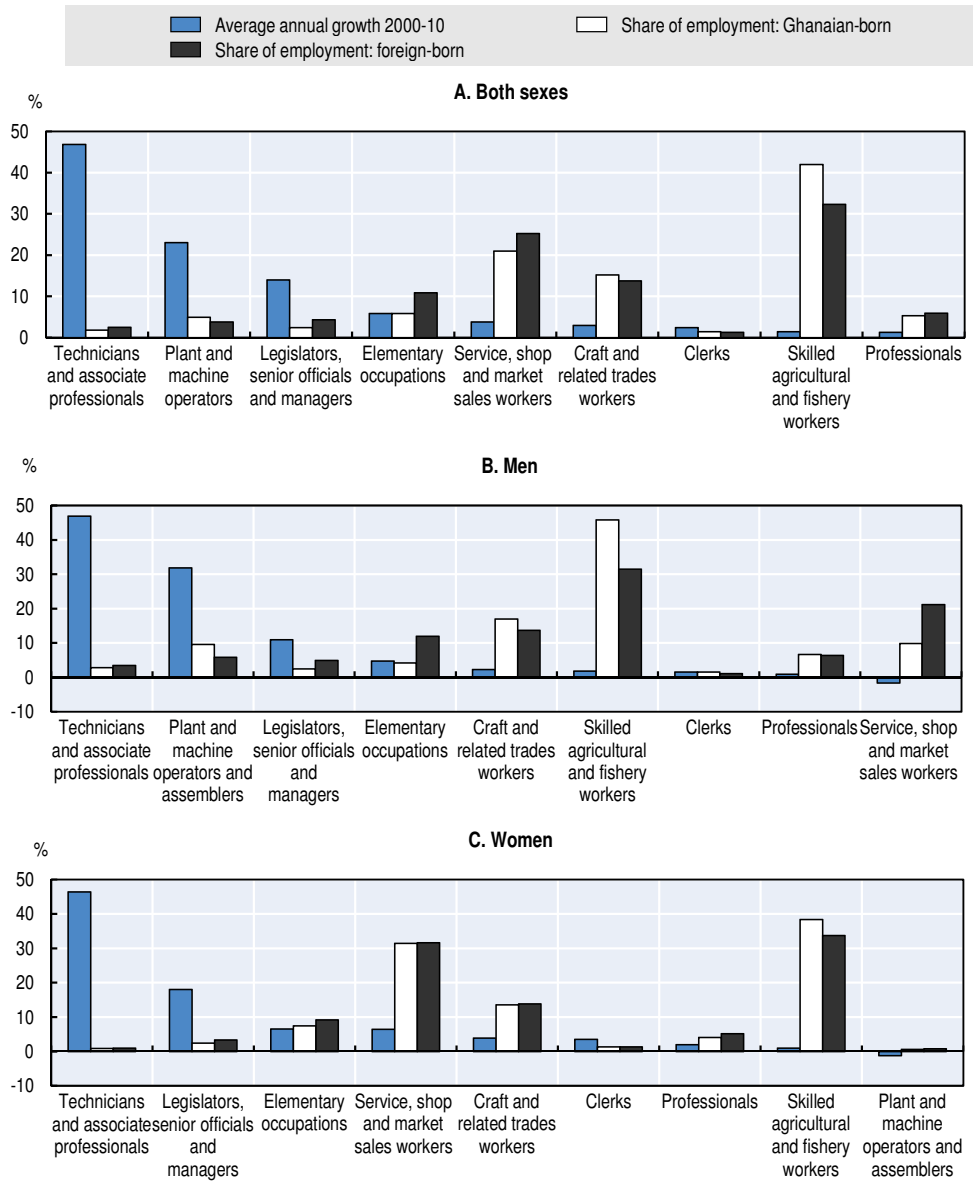
When disaggregating employment by place of birth and major occupational group, foreign-born workers are overrepresented in three of the four groups with relatively high rates of growth, including technicians, but also senior managers and elementary occupations (Figure 3.7A). Several of the slow-growing groups, including skilled agricultural workers, have relatively low proportions of foreign-born workers. The same observation can be made with regard to women and men separately, and foreign-born women are actually overrepresented in all major occupational groups except skilled agricultural and fishery workers (Figures 3.7B and 3.7C). These occupational patterns of foreign-born workers suggest that demand for labour is an important factor explaining the role of migrant workers in Ghana.

The role of labour demand in shaping the role of immigrants is underlined by the distribution of non-vulnerable employment by occupation. Non-vulnerable employment, which includes employees and employers, is likely to reflect economic pull factors to a greater extent than own-account work and contributing family work. In comparison with total employment (including vulnerable and non-vulnerable employment), the share of skilled agricultural workers in non-vulnerable employment is far smaller (11% versus 42%), and the share of service workers is also smaller. The share of all other major groups is larger in non-vulnerable employment, and differences are particularly large for professionals and plant operators. Foreign-born workers are also overrepresented in three of the four occupational groups with relatively high growth rates in non-vulnerable employment, although this relationship is weaker for women (Figure 3.8 and Annex Table 3.A1.4b). The overrepresentation

of foreign-born workers among skilled agricultural workers includes cross-border migration in agriculture, which was on a downward trend from 2000 to 2010, and appears to be less important for women than for men.

Figure 3.7. **Foreign-born workers are well-represented in fast-growing occupational groups**

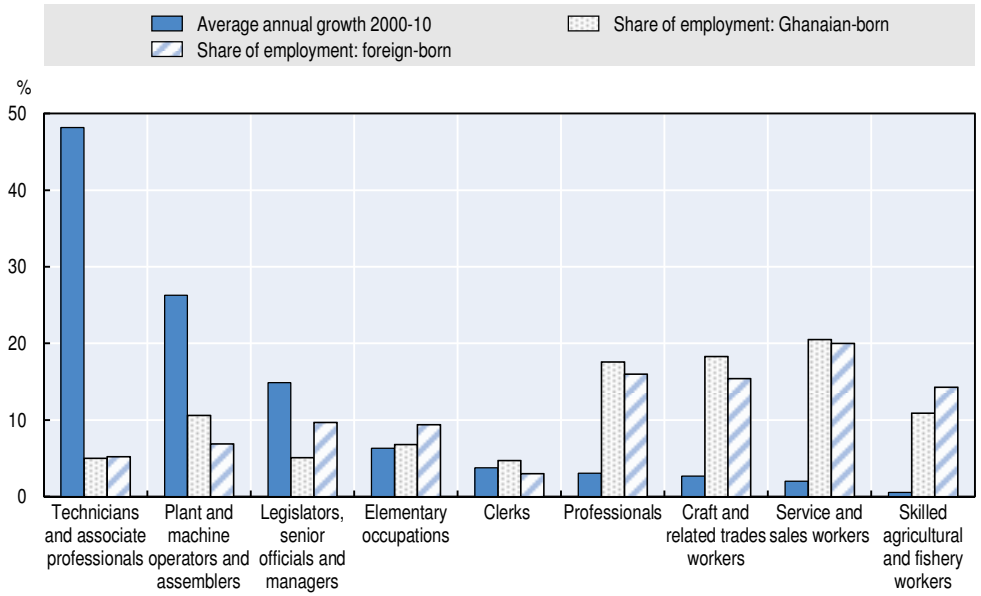
Employment by major occupational group and place of birth, 2010 (%)



Source: Authors' own work based on Minnesota Population Center (2015), Integrated Public Use Microdata Series, *http://doi.org/10.18128/D020.V6.5*; see also Annex Table 3.A1.4a.

Figure 3.8. **Foreign-born workers are well-represented in fast-growing occupational groups in non-vulnerable employment**

Non-vulnerable employment by major occupational group and place of birth, 2010 (%)

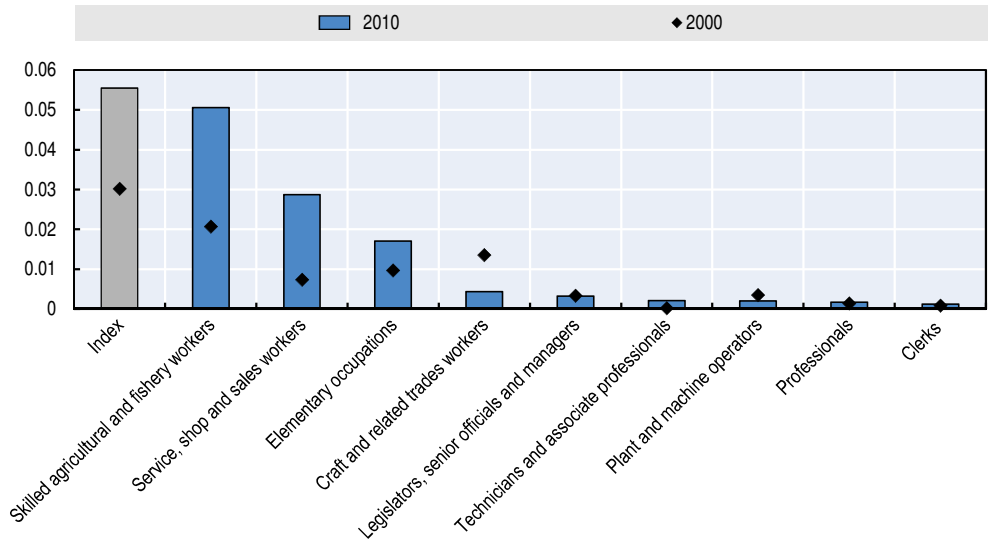


Source: Authors' own work based on Minnesota Population Center (2015), Integrated Public Use Microdata Series, *http://doi.org/10.18128/D020.V6.5*; see also Annex Table 3.A1.4b.

An index of dissimilarity based on occupational shares summarises occupational differences between immigrants and natives (see Annex 3.A1 for details). The index increased from 0.03 in 2000 to 0.06 in 2010, and was mostly driven by the increase in the absolute difference in native- and foreign-born employment shares for skilled agriculture and fishery workers as well as service workers and shop and market sales workers (Figure 3.9). While a decrease in dissimilarity was due to craft and related trades workers, an increase was due to the remaining occupational groups. Nevertheless, overall the occupational dissimilarity is still rather low.

Figure 3.9. **Differences between occupational distributions of foreign- and native-born workers have increased**

Absolute value of the differences in occupational employment of native- and foreign-born workers and index of dissimilarity



Note: The bar "Index" represents the index of dissimilarity for the year 2000 and 2010. The remaining bars represent the absolute value of the difference between the native-born and foreign-born occupational employment shares.

Source: Authors' own work based on Minnesota Population Center (2015), Integrated Public Use Microdata Series, *http://doi.org/10.18128/D020.V6.5*

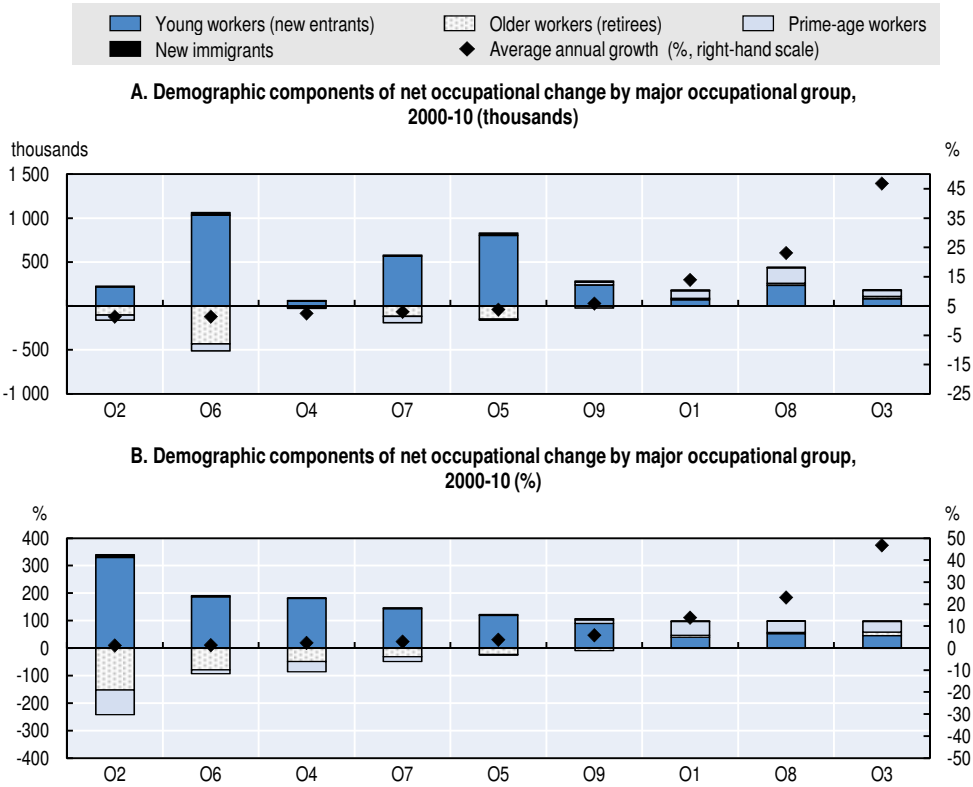
Occupational change is to an important extent driven by prime-age and older workers

Another way to examine the role of international migrants in labour markets is to consider the evolution of occupations from a demographic perspective. Based on a demographic accounting framework, the net occupational change over the period 2000 to 2010 can be decomposed into contributions from young workers (new entrants), new immigrants, prime-age workers and older workers (retirees). These age-related components of the net change are estimated by comparing the situation of so-called "pseudo age cohorts" in 2000 and 2010, respectively (see Annex 3.A1 for methodological details). This approach implicitly includes the effects of emigration and mortality, as well as the possibility of multiple occupational changes that may have occurred during the period (only the situations in 2000 and 2010 are observed).

The analysis is conducted at the level of major groups, which have been ranked in order of average annual employment growth rates from 2000 to 2010 (Figure 3.10a). The pattern in the figure shows that the number of retirees leaving major occupational groups becomes smaller if one moves from low-growth to

high-growth groups, and the large outflow of retirees in the group of skilled agricultural workers results in the very low growth rate of this group. On the other hand, in the three groups with the highest growth rates, the contribution of retirees is actually positive, which probably reflects movements of workers from other major occupational groups into the groups of technicians, plant and machine operators and senior officials. Similarly, there is a clear relationship between the contribution of prime-age workers to occupational change and the growth rate of occupational groups. The pattern is different for young workers and new immigrants as both groups of workers contribute proportionally more to low-growth occupations (Figure 3.10b). Demographic developments are therefore an important explanation of inflows of young workers, as these inflows replace retirees in low-growth occupations. The demographic effects appear more limited in high growth occupations, as inflows of young workers and new immigrants add to the net inflows into these groups which are driven by prime-age workers.

Figure 3.10. **New immigrants do not drive occupational change**



Source: Authors' own work based on Minnesota Population Center (2015), Integrated Public Use Microdata Series, *http://doi.org/10.18128/D020.V6.5*; see Annex 3.A1 for methodological details on the demographic decomposition.

Although inflows of neither new immigrants nor young workers are concentrated in high-growth occupations, there are important differences. In four of the five major occupational groups experiencing an increase in the share of employment, the share of new immigrants entering these occupations exceeded the commensurate share of new entrants (Figure 3.11A). Exceptions are plant and machine operators, which have relatively few entries of new immigrants, and professional occupations, in which many immigrants entered despite the decrease of the share of employment in this group. This suggests that immigration flows, in comparison with flows of new entrants, are to a greater extent driven by occupational demand for workers. The pattern is far weaker for women than for men, as the share of new female immigrants entering major groups experiencing growth is only in two groups exceeding the commensurate share of young workers (Figures 3.11B and 3.11C). Furthermore, there are several groups in which the share of new female immigrants exceed the share of young workers despite the decline of these groups.

Decomposition by level of skills in major occupational groups shows that new immigrants are overrepresented in both high skill and low skill occupations in comparison with new entrants (Figure 3.12a). Prime-age workers also have a relatively large share of entries at a low level of skills, but move overwhelmingly into high skill occupations. The weight of entries into high skill occupations becomes more important if we consider non-vulnerable employment (Figure 3.12b). High skill occupations account for 37% of entries into non-vulnerable employment, and entries of prime-age workers are on balance into high-skill occupations. The difference between the share of immigrants and new entrants in high-skill occupations, which was 3.9 percentage points in total employment, amounts to 5.8 percentage points in non-vulnerable employment.

Figure 3.11. **New immigrants are to a greater extent driven by occupational demand than new entrants**

Entries of new immigrants and new entrants into growing and declining occupational groups (percentage points)

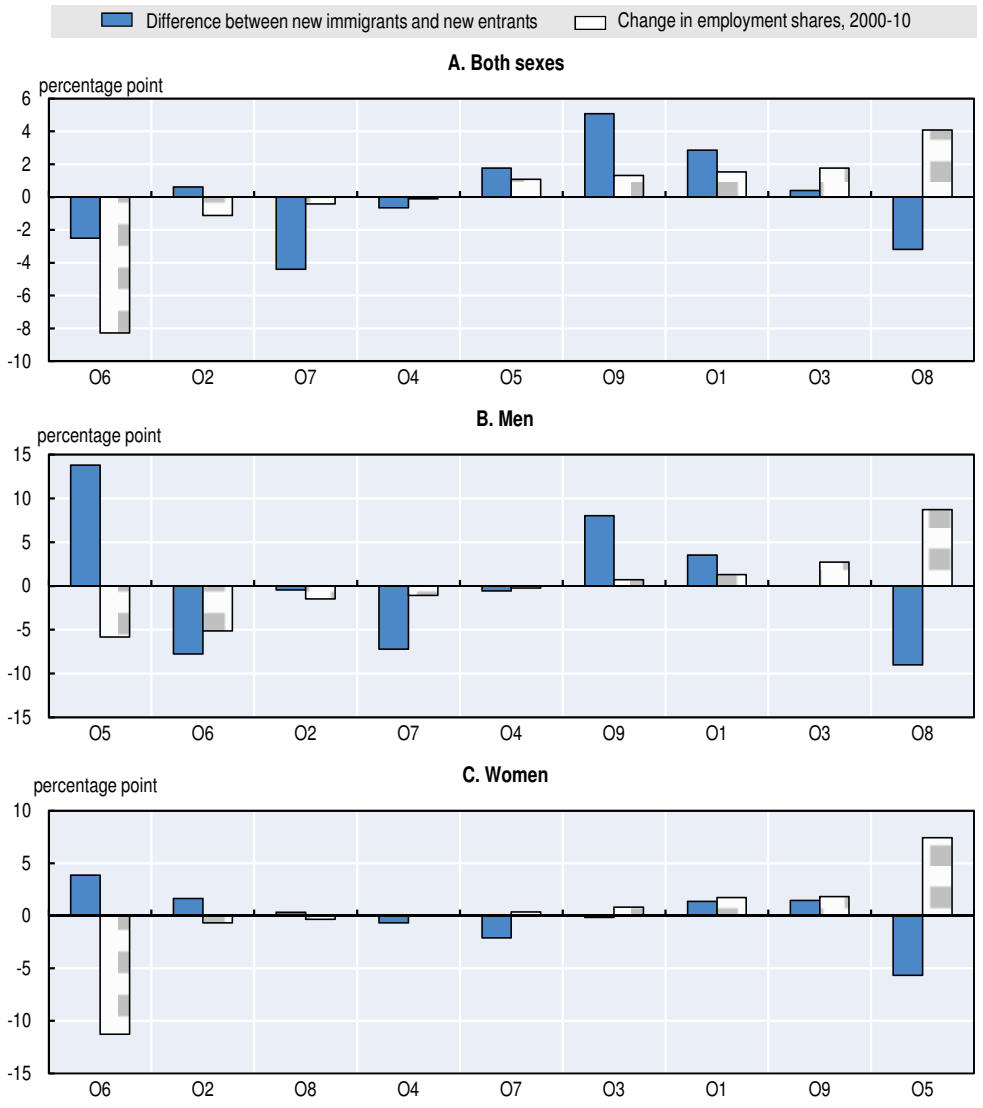
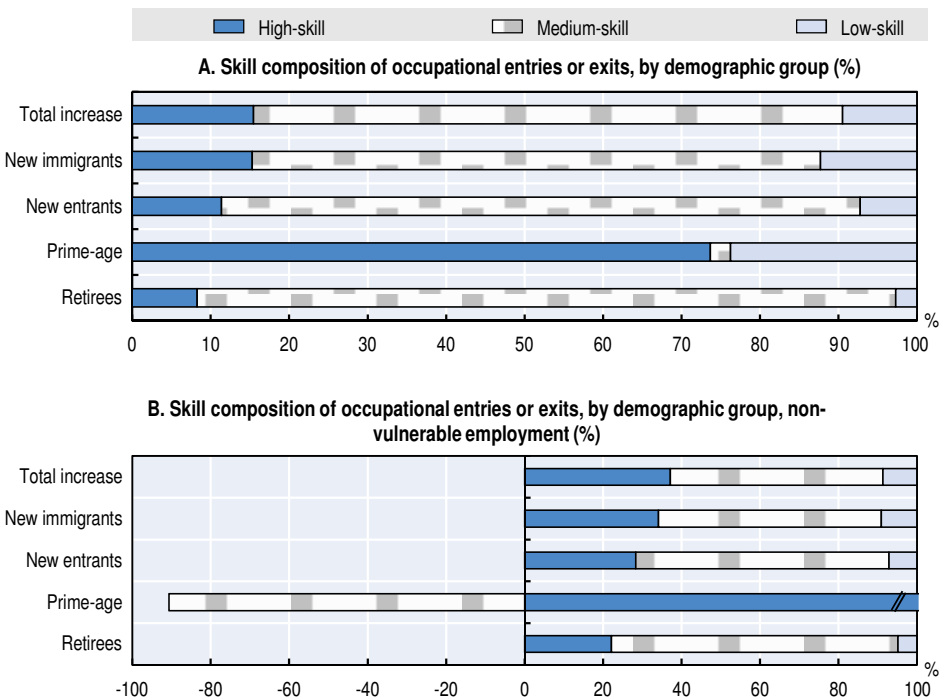


Figure 3.11. **New immigrants are to a greater extent driven by occupational demand than new entrants** *(cont.)*

Note: The figure shows the share of new immigrants minus the share of new entrants in each major group, together with the change in the employment share of the group. A positive difference in shares means that proportionally more new immigrants entered the group. Occupational groups are as follows:
O1 Legislators, senior officials and managers
O2 Professionals
O3 Technicians and associate professionals
O4 Clerks
O5 Service workers and shop and market sales workers
O6 Skilled agricultural and fishery workers
O7 Craft and related trades workers
O8 Plant and machine operators and assemblers
O9 Elementary occupations

Source: Authors' own work based on Minnesota Population Center (2015), Integrated Public Use Microdata Series, *http://doi.org/10.18128/D020.V6.5*; see Annex 3.A1 for methodological details on the demographic decomposition.

Figure 3.12. **New immigrants are overrepresented in both high skill and low skill occupations**



Source: Authors' own work based on Minnesota Population Center (2015), Integrated Public Use Microdata Series, *http://doi.org/10.18128/D020.V6.5*; see Annex 3.A1 for methodological details on the demographic decomposition.

Education of the foreign-born employed matches occupational demand

Education and skills of workers are an important factor influencing the patterns of occupational change discussed in previous sections, both for foreign-born and for native-born workers, and more so in view of the polarisation of the occupational distribution in Ghana. This section examines the development of levels of education of foreign-born workers in comparison with Ghanaian-born workers in the context of changing labour market needs in the country.

In 2000, about half of the Ghanaian-born employed had primary education or less, while the same was true for 56% of the foreign-born employed. Furthermore, the share of the foreign-born employed with secondary education was below the commensurate share of the Ghanaian-born employed, but a larger share of the foreign-born had obtained tertiary education (7.1%, versus 5.5% of the Ghanaian-born employed, see Figure 3.13A). From 2000 to 2010, the levels of educational attainment improved for both Ghanaian-born and foreign-born workers (Figure 3.13B). The share of Ghanaian-born workers with less than primary education decreased far more than the commensurate share of foreign-born workers, while the share of Ghanaian-born workers with secondary education increased much faster. In fact, the share of the foreign-born employed with secondary education was stagnant, and this share increased by more than 10 percentage points for the Ghanaian-born employed. However, there was a sharper rise in the share of the foreign-born employed with tertiary education, which increased by 4.5 percentage points (1.2 percentage points for the Ghanaian-born employed).

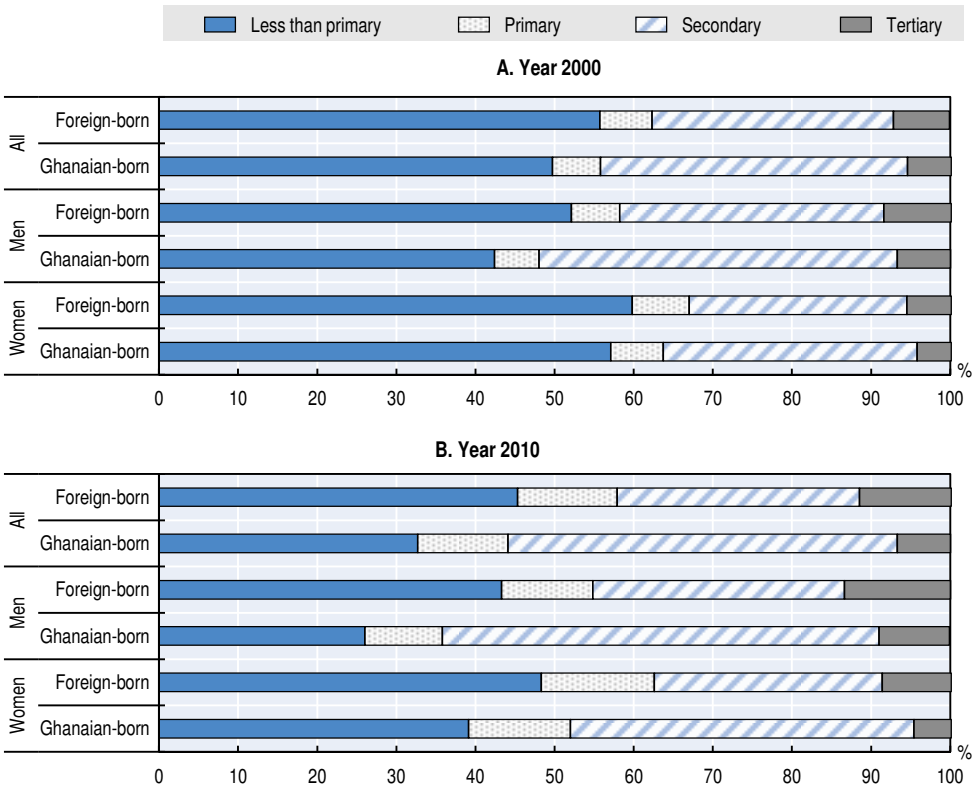
Given the strong presence of workers with low and high levels of education among foreign-born workers, the pattern of educational attainment seems in accordance with occupational demand. This appears to be confirmed by the levels of education of workers in non-vulnerable employment, which are often higher than for workers in vulnerable employment (Sparreboom and Staneva, 2014). In 2010, not more than 1.4% of those in vulnerable employment had tertiary education, compared with 20.6% in non-vulnerable employment. Although this proportion was lower among the foreign-born employed than among the Ghanaian-born employed in 2000 (16.6% and 17.1%, respectively), by 2010 the situation had reversed and 27.6% of the foreign-born workers in non-vulnerable employment had tertiary education, compared with 20.5% of Ghanaian-born workers (Figure 3.14 and Annex Table 3.A1.7b).

The rapid increase in educational attainment of the employed is also visible in the demographic decomposition of the labour force by level of education (see Annex 3.A1 for methodological details on the demographic decomposition). From 2000 to 2010, the labour force with primary education or less barely

increased as flows of new entrants were cancelled out by an equal exit of retirees and prime-age workers (Figure 3.15). At higher levels of education, however, the number of young workers entering the labour force is much larger than the number of retiring workers. For each retiring worker at the second or tertiary level combined, there are more than 10 young workers entering the labour force; for workers with primary education or less, there are only 1-2 young workers entering the labour force for each retiring worker.

Figure 3.13. **Share of foreign-born workers with tertiary education increases**

Employment by educational attainment (%)

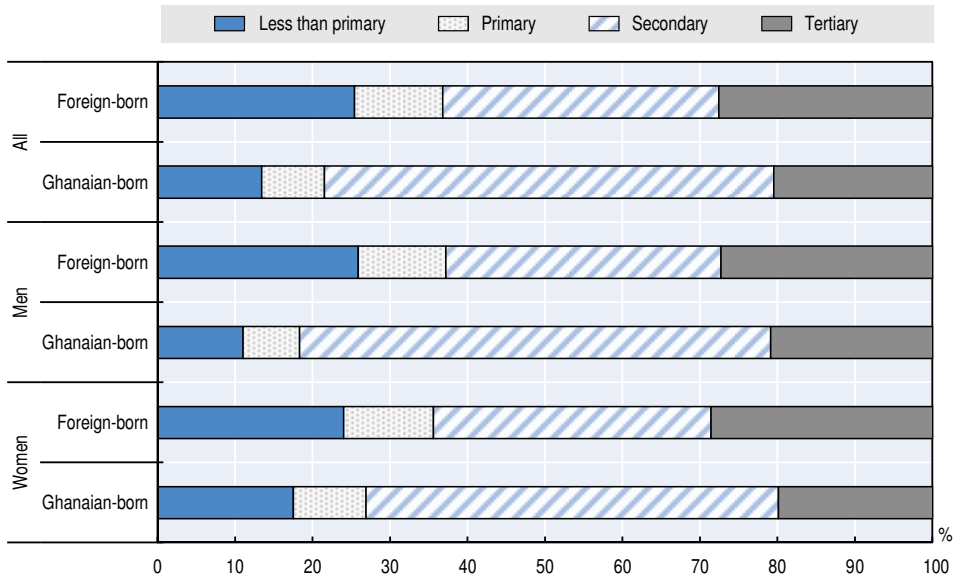


Source: Authors' own work based on Minnesota Population Center (2015), Integrated Public Use Microdata Series, *http://doi.org/10.18128/D020.V6.5*; see also Annex Table 3.A1.7a.

New immigrants contribute to the rising levels of education of the labour force, but also to the replacement of those with low levels of education. Almost 15% of new immigrants have tertiary education, compared with less than 10% of new entrants. At the same time, 55% of new immigrants have a low education, compared with 32% of new entrants. The contribution of new immigrants at the secondary level of education was relatively minor.

Figure 3.14. **Workers in non-vulnerable employment are better educated**

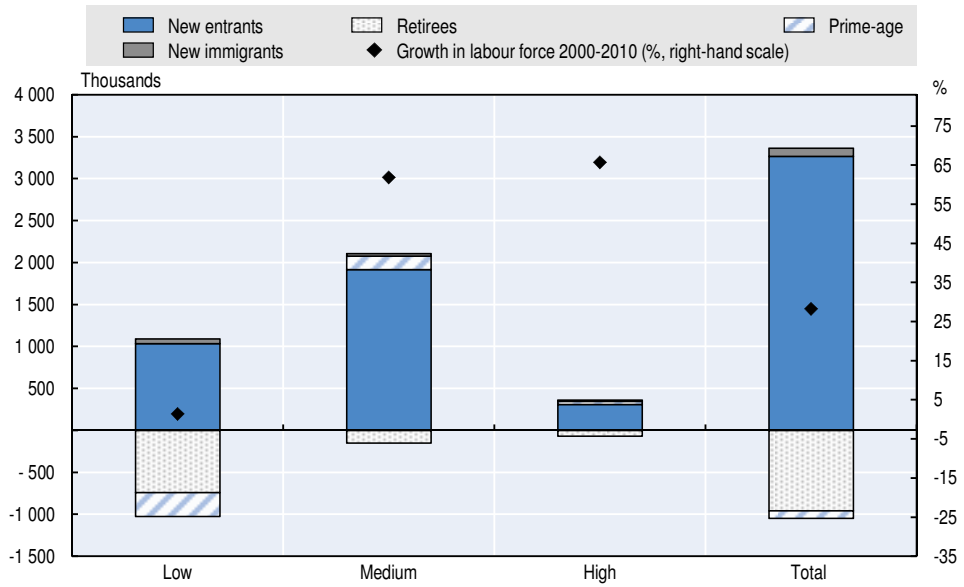
Non-vulnerable employment by educational attainment, 2010 (%)



Source: Authors' own work based on Minnesota Population Center (2015), Integrated Public Use Microdata Series, *http://doi.org/10.18128/D020.V6.5*; see also Annex Table 3.A1.7b.

Figure 3.15. **Demographic change favours higher levels of education**

Demographic components of changes in the educational attainment of the labour force, 2000-10 (thousands)

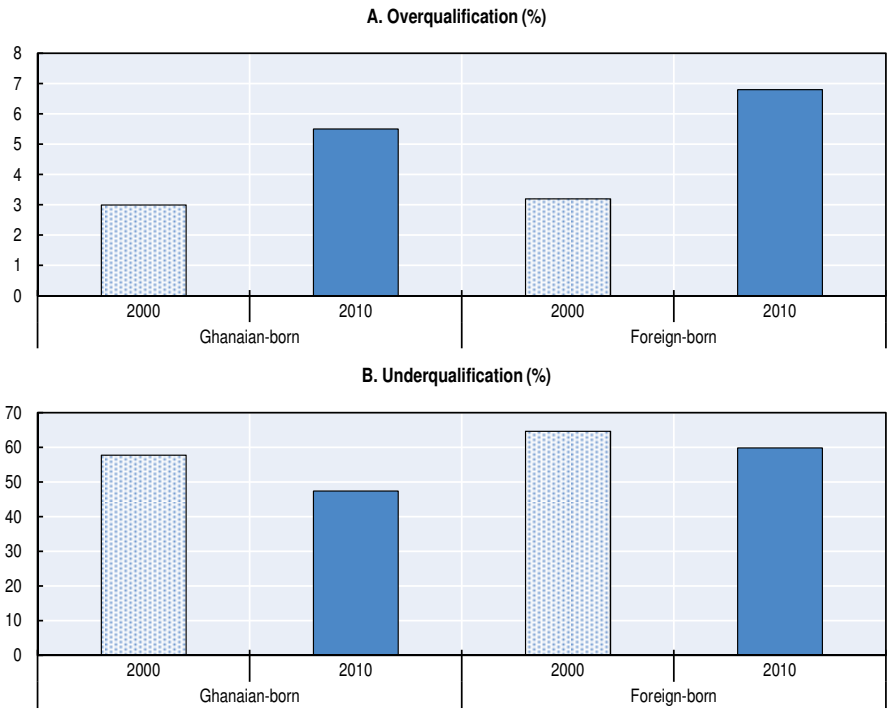


Source: Authors' own work based on Minnesota Population Center (2015), Integrated Public Use Microdata Series, *http://doi.org/10.18128/D020.V6.5*; see Annex 3.A1 for methodological details on the demographic decomposition.

Skills mismatch is mostly due to under-education

If levels of education are not in accordance with the requirements of jobs, skills mismatch may arise. Skills mismatch is an encompassing term which refers to various types of imbalances between skills offered and skills needed in the world of work, and includes over-education and under-education. Based on the normative measure (ILO, 2014), levels of over-education in Ghana are low. The incidence of over-education was slightly higher for foreign-born workers than for Ghanaian-born workers in 2000; the gap had widened somewhat by 2010, but the proportion of overqualified workers remained small (Figure 3.16A and Annex Table 3.A1.6a). Over-education of foreign-born workers may be indicative of skills recognition issues. For example, the incidence of over-education for clerks was 47% for foreign-born workers, compared with 41% for the Ghanaian-born employed. On the other hand, levels of over-education were higher for Ghanaian-born workers in elementary occupations (59%, compared with 30% for foreign-born workers). This may reflect the larger share of Ghanaian-born workers with secondary education, but also the nature of work in these occupations, which is less attractive than many other occupations and could make competition between Ghanaian-born and foreign-born workers based on qualifications less important.

Figure 3.16. **Levels of under-education are much higher than levels of over-education**



Source: Authors' own work based on Minnesota Population Center (2015), Integrated Public Use Microdata Series, *http://doi.org/10.18128/D020.V6.5*; see also Annex Table 3.A1.6a.

In contrast to over-education, under-education is widespread and affected more than half of the employed in 2000. Although the incidence of under-education decreased for both Ghanaian-born and foreign-born workers from 2000 to 2010, the decrease was less for foreign-born workers, while at the same time remaining at a considerably higher level in comparison to Ghanaian-born workers (Figure 3.16B). Under-education is more prevalent for women than for men, while the male-female gap is smaller for foreign-born workers.

Conclusions

This chapter demonstrated that foreign-born workers and Ghanaian-born workers have different labour market positions, as reflected in a range of labour market indicators. It was shown that indicators of the quantity of employment such as employment-to-population ratios are slightly lower for foreign-born workers than for Ghanaian-born workers. Female foreign-born workers face a double disadvantage, in that employment rates are lower for women than for men (whether native-born or not), and the female foreign-born employment rate is lower than the rate for Ghanaian-born women. However, the quality of employment as captured by the vulnerable employment rate is consistently better for foreign-born workers.

In view of the low proportion of immigrants in Ghana's labour markets, it is clear that they are not a major factor shaping labour market outcomes. The evolution of the labour force, in terms of increasing numbers and rising educational attainment of workers, is mainly due to new (Ghanaian-born) entrants and retirees. The demographic accounting framework also showed that outflows of workers due to retirement are being matched by inflows of young workers in low-growth occupations in Ghana.

The patterns of employment of foreign-born workers indicate that they respond to labour market opportunities, for example in terms of growth rates of occupations. Both the structure of employment by occupation and the employment of foreign-born workers demonstrates polarisation of jobs, in that foreign-born workers have a strong presence in the low- and high-skill occupations that have become more important. In the case of new immigrants, this is underlined by the comparison between new (Ghanaian-born) entrants into the labour market and new immigrants, as the latter are more likely to enter in growing occupations. Levels of educational attainment of foreign-born workers are to a greater extent polarised than those of Ghanaian-born workers.

Note

1. The average age of Ghanaian-born workers decreased marginally from 37.2 years in 2000 to 37.0 years in 2010.

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ANNEX 3.A1

Data, methodologies and additional tables

Data

The empirical analysis in Chapter 3 is based on population censuses conducted in 2000 and 2010 and living standards surveys conducted in 2006 and 2013 by the Ghana Statistical Service (GSS). Results have been made available directly to users by the GSS or through the Minnesota Population Center Integrated Public Use Microdata Series (IPUMS).

An immigrant is defined as someone who was born abroad and is currently living in Ghana. Citizenship plays no role: Someone who was born in Ghana but has a different nationality is not understood to be an immigrant; while someone who has a Ghanaian passport but was born abroad is understood to be an immigrant whether or not he or she already had the nationality at birth.

Unless stated differently, labour market indicators are defined in accordance with ILO (2015a).

Methodology to assess sectoral and occupational employment patterns

The similarity of sectoral employment patterns between native workers and immigrants can be assessed using an index of dissimilarity. The index represents the proportion of a group, either native- or foreign-born, that would need to move in order to create an equal distribution. The index is calculated based on the following equation:

$$D = \frac{1}{2}\sum_{i=1}^{s}\left|\frac{n_i}{N_T} - \frac{f_i}{F_T}\right|$$

in which case n_i is the number of native-born workers per sector, N_T is the total number of native-born workers across all sectors, f_i is the number of foreign-born workers per sector and F_T is the total number of foreign-born workers across all sectors. The same index can be applied to occupational distributions.

Methodology of demographic decomposition

Following chapters 3 and 4 by the OECD/European Union (2014), the decomposition used in this chapter is based on a demographic accounting method, applied to changes in the distribution of workers by level of education and by occupation.

This method builds on the following equation concerning the measure of change in a particular variable between two points in time:

$$\Delta(T) = E + I + \Delta(PA) - R;$$

$\Delta(T)$ = the total change observed in the variable over the period

E = non-immigrant entrants over the period

I = new immigrants who arrived over the period

$\Delta(PA)$ = change in the prime-age group over the period

R = retirees over the period

This equation shows that total change over the period equals inflows minus outflows, while deaths and emigration are included implicitly. The table below summarises how these components are obtained based on 2000 and 2010 population census data on the labour force (LF).

Table 3.A1.1. **Definition of components for the demographic accounting decomposition**

(1) = (2) – (3)	(2) 2010 Population census	(3) 2000 Population census
Non-immigrant entrants (E)	LF (aged 15-34 excluding foreign-born without long-term residence)	LF (aged 15-24)
Retirees (-R)	LF (aged 55+ excluding foreign-born without long-term residence)	LF (aged 45+)
Change in the prime-age group (Δ(PA))	LF (aged 35-54 excluding foreign-born without long-term residence)	LF (aged 25-44)
New immigrants (I)	LF (foreign-born without long-term residence aged 15+)	0
Total change : Δ(T) = E + I + Δ(PA) – R	LF (aged 15+)	LF (aged 15+)

Non-immigrant entrants to the labour market are calculated by subtracting the labour force aged 15-24 in 2000 from the labour force aged 15-34 in 2010, which thus assumes that all persons 15-24 who were part of the labour force in 2000 are still in the labour force ten years later (when they are 25-34 of age). Similarly, retirees are those in the labour force who were aged 45 and above in 2000 minus those aged 55 and above in 2010 (temporary withdrawals and re-entries prior to definitive retirement are implicitly netted out). The change in the size of the prime-age group equals the labour force aged 35-54 in 2010 minus the labour force aged 25-44 in 2000. Finally, the number of new immigrants is calculated as immigrants with duration of residence of less than five years, and such immigrants are excluded

from the other components to avoid double counting. As can be verified from the table, these four components add up to the labour force in both 2000 and 2010. The same methodology can be used to decompose sub-groups of the labour force (such as the employed, educational and occupational groups).

Table 3.A1.2. **Employment-to-population ratio, by sex and age group**

Year	Nativity status	Sex	Age	Employed ('000)	Population ('000)	Employed (%)
2000	All	MF	15+	7,440.6	1,1116.2	66.9
2000	Ghanaian	MF	15+	7,373.4	1,1010.8	67.0
2000	Foreign	MF	15+	67.2	105.4	63.7
2000	All	M	15+	3,751.3	5,436.3	69.0
2000	Ghanaian	M	15+	3,716.4	5,383.3	69.0
2000	Foreign	M	15+	34.9	53.1	65.8
2000	All	F	15+	3,689.3	5,679.9	65.0
2000	Ghanaian	F	15+	3,657.0	5,627.5	65.0
2000	Foreign	F	15+	32.3	52.3	61.6
2000	All	MF	15-24	1,567.7	3,496.4	44.8
2000	Ghanaian	MF	15-24	1,554.1	3,462.7	44.9
2000	Foreign	MF	15-24	13.6	33.7	40.3
2000	All	M	15-24	764.8	1,729.5	44.2
2000	Ghanaian	M	15-24	758.6	1,713.7	44.3
2000	Foreign	M	15-24	6.2	15.8	39.3
2000	All	F	15-24	802.8	1,766.9	45.4
2000	Ghanaian	F	15-24	795.5	1,749.0	45.5
2000	Foreign	F	15-24	7.4	17.9	41.3
2000	All	MF	25+	5,872.9	7,619.8	77.1
2000	Ghanaian	MF	25+	5,819.3	7,548.1	77.1
2000	Foreign	MF	25+	53.6	71.7	74.7
2000	All	M	25+	2,986.5	3,706.8	80.6
2000	Ghanaian	M	25+	2,957.8	3,669.6	80.6
2000	Foreign	M	25+	28.7	37.2	77.0
2000	All	F	25+	2,886.4	3,912.9	73.8
2000	Ghanaian	F	25+	2,861.6	3,878.5	73.8
2000	Foreign	F	25+	24.9	34.4	72.2
2010	All	MF	15+	10,240.8	15,222.4	67.3
2010	Ghanaian	MF	15+	10,081.2	14,977.2	67.3
2010	Foreign	MF	15+	159.6	245.1	65.1
2010	All	M	15+	5,003.5	7,240.4	69.1
2010	Ghanaian	M	15+	4,906.1	7,106.0	69.0
2010	Foreign	M	15+	97.4	134.4	72.5
2010	All	F	15+	5,237.3	7,981.9	65.6
2010	Ghanaian	F	15+	5,175.1	7,871.2	65.7
2010	Foreign	F	15+	62.2	110.8	56.2
2010	All	MF	15-24	1,953.9	4,936.9	39.6
2010	Ghanaian	MF	15-24	1,916.1	4,854.4	39.5
2010	Foreign	MF	15-24	37.8	82.5	45.8

Table 3.A1.2. **Employment-to-population ratio, by sex and age group** *(cont.)*

Year	Nativity status	Sex	Age	Employed ('000)	Population ('000)	Employed (%)
2010	All	M	15-24	936.6	2,417.4	38.7
2010	Ghanaian	M	15-24	915.1	2,375.4	38.5
2010	Foreign	M	15-24	21.6	42.0	51.4
2010	All	F	15-24	1,017.3	2,519.5	40.4
2010	Ghanaian	F	15-24	1,001.0	2,479.0	40.4
2010	Foreign	F	15-24	16.3	40.5	40.1
2010	All	MF	25+	8,286.9	10,285.5	80.6
2010	Ghanaian	MF	25+	8,165.1	10,122.8	80.7
2010	Foreign	MF	25+	121.8	162.6	74.9
2010	All	M	25+	4,066.9	4,823.0	84.3
2010	Ghanaian	M	25+	3,991.0	4,730.6	84.4
2010	Foreign	M	25+	75.9	92.4	82.1
2010	All	F	25+	4,220.0	5,462.5	77.3
2010	Ghanaian	F	25+	4,174.1	5,392.2	77.4
2010	Foreign	F	25+	46.0	70.2	65.5

Source: Authors' own work based on Minnesota Population Center (2015), Integrated Public Use Microdata Series, *http://doi.org/10.18128/D020.V6.5*

Table 3.A1.3. **Status in employment, by sex**

Year	Nativity status	Sex	WSW (%)	EMPR (%)	OAW (%)	CFW (%)	NC %
2000	All	MF	19.3	5.2	68.2	6.7	0.5
2000	Ghanaian	MF	19.3	5.2	68.3	6.7	0.5
2000	Foreign	MF	24.7	6.2	60.8	6.8	1.6
2000	All	M	25.6	5.5	62.6	5.7	0.6
2000	Ghanaian	M	25.6	5.5	62.7	5.7	0.6
2000	Foreign	M	30.6	6.4	55.2	5.8	1.9
2000	All	F	12.9	4.9	73.9	7.8	0.4
2000	Ghanaian	F	12.9	4.9	74.0	7.8	0.4
2000	Foreign	F	18.2	5.9	66.8	7.9	1.2
2010	All	MF	23.1	4.9	60.1	11.7	0.2
2010	Ghanaian	MF	23.1	4.9	60.2	11.7	0.2
2010	Foreign	MF	28.2	5.0	55.5	10.8	0.4
2010	All	M	30.7	5.6	54.6	8.9	0.2
2010	Ghanaian	M	30.6	5.6	54.6	8.9	0.2
2010	Foreign	M	33.2	5.8	53.8	6.8	0.3
2010	All	F	15.9	4.2	65.3	14.4	0.1
2010	Ghanaian	F	15.9	4.2	65.4	14.4	0.1
2010	Foreign	F	20.4	3.6	58.3	17.1	0.6

Note:
WSW Wage and salaried workers
EMPR Employers
OAW Own-account workers
CFW Contributing family workers
NC Not classified

Source: Authors' own work based on Minnesota Population Center (2015), Integrated Public Use Microdata Series, *http://doi.org/10.18128/D020.V6.5*

Table 3.A1.4a. **Employment by occupation, by sex**

Year	Nativity status	Sex	1 (%)	2 (%)	3 (%)	4 (%)	5 (%)	6 (%)	7 (%)	8 (%)	9 (%)	NC (%)	All (%)
2000	All	MF	0.9	6.5	0.1	1.6	19.9	50.1	15.6	0.9	4.6	0.0	100.0
2000	Ghanaian	MF	0.9	6.4	0.1	1.6	19.9	50.2	15.6	0.8	4.6	0.0	100.0
2000	Foreign	MF	1.5	7.8	0.0	1.7	22.9	39.7	19.0	1.5	6.0	0.0	100.0
2000	All	M	1.2	8.1	0.1	1.8	15.9	50.5	18.0	0.8	3.6	0.0	100.0
2000	Ghanaian	M	1.2	8.1	0.1	1.8	15.9	50.6	17.9	0.8	3.6	0.0	100.0
2000	Foreign	M	1.8	9.1	0.1	2.0	20.1	39.5	21.2	1.5	4.8	0.0	100.0
2000	All	F	0.7	4.8	0.0	1.3	23.9	49.6	13.2	0.9	5.6	0.0	100.0
2000	Ghanaian	F	0.6	4.8	0.0	1.3	23.9	49.7	13.2	0.9	5.6	0.0	100.0
2000	Foreign	F	1.2	6.3	0.0	1.5	25.9	39.8	16.6	1.5	7.2	0.0	100.0
2010	All	MF	2.4	5.3	1.8	1.4	21.0	41.8	15.2	4.9	5.9	0.2	100.0
2010	Ghanaian	MF	2.4	5.3	1.8	1.4	20.9	41.9	15.2	5.0	5.8	0.2	100.0
2010	Foreign	MF	4.3	5.9	2.5	1.2	25.3	32.3	13.7	3.8	10.8	0.1	100.0
2010	All	M	2.5	6.6	2.8	1.6	10.1	45.4	16.9	9.5	4.3	0.3	100.0
2010	Ghanaian	M	2.4	6.6	2.8	1.6	9.9	45.7	17.0	9.6	4.2	0.3	100.0
2010	Foreign	M	4.9	6.4	3.5	1.2	21.1	31.4	13.6	5.8	11.9	0.1	100.0
2010	All	F	2.4	4.1	0.9	1.3	31.4	38.3	13.6	0.6	7.5	0.1	100.0
2010	Ghanaian	F	2.4	4.1	0.9	1.3	31.4	38.4	13.5	0.6	7.4	0.1	100.0
2010	Foreign	F	3.3	5.2	1.0	1.4	31.7	33.8	13.8	0.7	9.1	0.0	100.0

Source: Authors' own work based on Minnesota Population Center (2015), Integrated Public Use Microdata Series, *http://doi.org/10.18128/D020.V6.5*

Table 3.A1.4b. **Non-vulnerable employment by occupation, by sex**

Year	Nativity status	Sex	1 (%)	2 (%)	3 (%)	4 (%)	5 (%)	6 (%)	7 (%)	8 (%)	9 (%)	NC (%)	All (%)
2000	All	MF	2.0	20.5	0.2	5.0	26.5	16.3	22.1	1.6	5.8	0.0	100.0
2000	Ghanaian	MF	2.0	20.5	0.2	5.0	26.5	16.3	22.1	1.6	5.8	0.0	100.0
2000	Foreign	MF	2.7	18.7	0.0	4.1	26.8	17.6	22.2	1.9	6.0	0.0	100.0
2000	All	M	2.3	20.0	0.2	4.5	25.8	15.8	24.0	1.5	6.0	0.0	100.0
2000	Ghanaian	M	2.3	20.1	0.2	4.5	25.8	15.7	24.0	1.5	6.0	0.0	100.0
2000	Foreign	M	3.0	17.8	0.1	3.9	25.9	17.7	24.1	1.9	5.6	0.0	100.0
2000	All	F	1.5	21.2	0.1	6.0	27.7	17.3	18.7	1.9	5.5	0.0	100.0
2000	Ghanaian	F	1.5	21.2	0.1	6.0	27.7	17.3	18.7	1.9	5.5	0.0	100.0
2000	Foreign	F	2.1	20.2	0.0	4.4	28.2	17.5	19.2	1.9	6.6	0.0	100.0
2010	All	MF	5.1	17.6	5.0	4.6	20.5	10.9	18.3	10.6	6.8	0.6	100.0
2010	Ghanaian	MF	5.1	17.6	5.0	4.7	20.5	10.9	18.3	10.6	6.8	0.6	100.0
2010	Foreign	MF	9.7	16.0	5.2	3.0	20.0	14.3	15.4	6.9	9.4	0.2	100.0
2010	All	M	5.1	16.9	5.9	3.7	13.7	11.6	20.0	15.8	6.6	0.8	100.0
2010	Ghanaian	M	5.0	16.9	5.9	3.8	13.6	11.5	20.1	15.9	6.5	0.8	100.0
2010	Foreign	M	10.0	14.8	6.0	2.1	15.9	16.3	16.1	8.9	9.8	0.2	100.0
2010	All	F	5.1	18.8	3.4	6.2	32.3	9.8	15.2	1.6	7.3	0.3	100.0
2010	Ghanaian	F	5.1	18.8	3.4	6.2	32.3	9.8	15.2	1.6	7.3	0.3	100.0
2010	Foreign	F	8.8	19.3	3.1	5.1	30.7	9.2	13.6	1.7	8.5	0.0	100.0

Table 3.A1.4b. **Non-vulnerable employment by occupation, by sex** *(cont.)*

Note:
1 Legislators, senior officials and managers
2 Professionals
3 Technicians and associate professionals
4 Clerks
5 Service workers and shop and market sales workers
6 Skilled agricultural and fishery workers
7 Craft and related trades workers
8 Plant and machine operators and assemblers
9 Elementary occupations
NC Not classified

Source: Authors' own work based on Minnesota Population Center (2015), Integrated Public Use Microdata Series, *http://doi.org/10.18128/D020.V6.5*

Table 3.A1.5a. **Employment by educational attainment, by sex and age group**

Year	Nativity status	Sex	Age	Less than primary (%)	Primary (%)	Secondary (%)	Tertiary (%)	All (%)
2000	All	MF	15+	49.7	6.1	38.7	5.5	100.0
2000	Ghanaian	MF	15+	49.7	6.1	38.8	5.5	100.0
2000	Foreign	MF	15+	55.7	6.6	30.5	7.1	100.0
2000	All	M	15+	42.5	5.6	45.2	6.7	100.0
2000	Ghanaian	M	15+	42.4	5.6	45.3	6.7	100.0
2000	Foreign	M	15+	52.1	6.1	33.4	8.5	100.0
2000	All	F	15+	57.1	6.6	32.0	4.3	100.0
2000	Ghanaian	F	15+	57.1	6.6	32.1	4.3	100.0
2000	Foreign	F	15+	59.8	7.2	27.5	5.6	100.0
2000	All	MF	15-24	46.6	7.2	43.4	2.7	100.0
2000	Ghanaian	MF	15-24	46.6	7.2	43.4	2.7	100.0
2000	Foreign	MF	15-24	48.2	8.8	39.0	4.0	100.0
2000	All	M	15-24	42.4	6.7	47.9	3.0	100.0
2000	Ghanaian	M	15-24	42.3	6.7	48.0	3.0	100.0
2000	Foreign	M	15-24	44.8	7.6	43.2	4.3	100.0
2000	All	F	15-24	50.8	7.7	39.0	2.5	100.0
2000	Ghanaian	F	15-24	50.7	7.7	39.1	2.4	100.0
2000	Foreign	F	15-24	50.9	9.8	35.5	3.8	100.0
2000	All	MF	25+	50.5	5.8	37.4	6.2	100.0
2000	Ghanaian	MF	25+	50.5	5.8	37.5	6.2	100.0
2000	Foreign	MF	25+	57.7	6.1	28.4	7.8	100.0
2000	All	M	25+	42.5	5.3	44.5	7.7	100.0
2000	Ghanaian	M	25+	42.4	5.3	44.7	7.6	100.0
2000	Foreign	M	25+	53.7	5.8	31.2	9.3	100.0
2000	All	F	25+	58.9	6.3	30.1	4.8	100.0
2000	Ghanaian	F	25+	58.8	6.3	30.1	4.8	100.0
2000	Foreign	F	25+	62.3	6.4	25.1	6.1	100.0
2010	All	MF	15+	32.9	11.4	48.9	6.8	100.0
2010	Ghanaian	MF	15+	32.7	11.4	49.2	6.7	100.0
2010	Foreign	MF	15+	45.3	12.6	30.6	11.6	100.0
2010	All	M	15+	26.4	9.9	54.8	9.0	100.0
2010	Ghanaian	M	15+	26.0	9.8	55.2	8.9	100.0
2010	Foreign	M	15+	43.3	11.5	31.8	13.4	100.0

Table 3.A1.5a. **Employment by educational attainment, by sex and age group** *(cont.)*

Year	Nativity status	Sex	Age	Less than primary (%)	Primary (%)	Secondary (%)	Tertiary (%)	All (%)
2010	All	F	15+	39.2	12.9	43.2	4.7	100.0
2010	Ghanaian	F	15+	39.1	12.9	43.4	4.7	100.0
2010	Foreign	F	15+	48.3	14.3	28.8	8.7	100.0
2010	All	MF	15-24	26.8	15.4	54.9	2.9	100.0
2010	Ghanaian	MF	15-24	26.5	15.4	55.3	2.8	100.0
2010	Foreign	MF	15-24	42.6	15.6	37.3	4.5	100.0
2010	All	M	15-24	23.7	15.2	58.2	2.9	100.0
2010	Ghanaian	M	15-24	23.2	15.2	58.7	2.9	100.0
2010	Foreign	M	15-24	44.2	15.0	36.4	4.3	100.0
2010	All	F	15-24	29.7	15.7	51.9	2.8	100.0
2010	Ghanaian	F	15-24	29.5	15.7	52.1	2.8	100.0
2010	Foreign	F	15-24	40.3	16.3	38.6	4.8	100.0
2010	All	MF	25+	34.4	10.5	47.5	7.7	100.0
2010	Ghanaian	MF	25+	34.2	10.4	47.7	7.6	100.0
2010	Foreign	MF	25+	46.1	11.7	28.5	13.7	100.0
2010	All	M	25+	27.0	8.7	54.0	10.4	100.0
2010	Ghanaian	M	25+	26.7	8.6	54.4	10.3	100.0
2010	Foreign	M	25+	43.1	10.5	30.5	16.0	100.0
2010	All	F	25+	41.5	12.2	41.2	5.2	100.0
2010	Ghanaian	F	25+	41.4	12.2	41.3	5.1	100.0
2010	Foreign	F	25+	51.1	13.6	25.3	10.1	100.0

Source: Authors' own work based on Minnesota Population Center (2015), Integrated Public Use Microdata Series, *http://doi.org/10.18128/D020.V6.5*

Table 3.A1.5b. **Non-vulnerable employment by educational attainment, by sex and age group**

Year	Nativity status	Sex	Age	Less than primary (%)	Primary (%)	Secondary (%)	Tertiary (%)	All (%)
2000	All	MF	15+	27.3	4.7	51.0	17.1	100.0
2000	Ghanaian	MF	15+	27.1	4.7	51.1	17.1	100.0
2000	Foreign	MF	15+	40.5	4.9	38.0	16.6	100.0
2000	All	M	15+	24.1	4.5	55.0	16.5	100.0
2000	Ghanaian	M	15+	23.9	4.5	55.1	16.5	100.0
2000	Foreign	M	15+	38.9	4.3	40.3	16.6	100.0
2000	All	F	15+	32.8	5.1	43.8	18.3	100.0
2000	Ghanaian	F	15+	32.6	5.1	44.0	18.3	100.0
2000	Foreign	F	15+	43.2	5.9	34.1	16.7	100.0
2000	All	MF	15-24	29.5	6.7	58.0	5.7	100.0
2000	Ghanaian	MF	15-24	29.4	6.7	58.2	5.7	100.0
2000	Foreign	MF	15-24	35.9	8.6	48.3	7.2	100.0
2000	All	M	15-24	26.4	6.5	61.5	5.6	100.0
2000	Ghanaian	M	15-24	26.3	6.5	61.6	5.6	100.0
2000	Foreign	M	15-24	31.9	8.3	52.8	7.1	100.0

Table 3.A1.5b. **Non-vulnerable employment by educational attainment, by sex and age group** *(cont.)*

Year	Nativity status	Sex	Age	Less than primary (%)	Primary (%)	Secondary (%)	Tertiary (%)	All (%)
2000	All	F	15-24	33.3	7.0	53.8	5.8	100.0
2000	Ghanaian	F	15-24	33.3	7.0	53.9	5.8	100.0
2000	Foreign	F	15-24	40.3	9.0	43.3	7.3	100.0
2000	All	MF	25+	26.6	4.1	49.0	20.3	100.0
2000	Ghanaian	MF	25+	26.4	4.1	49.2	20.3	100.0
2000	Foreign	MF	25+	41.9	3.7	34.8	19.5	100.0
2000	All	M	25+	23.6	4.0	53.5	19.0	100.0
2000	Ghanaian	M	25+	23.4	4.0	53.7	19.0	100.0
2000	Foreign	M	25+	40.6	3.3	37.2	18.9	100.0
2000	All	F	25+	32.6	4.3	40.2	22.9	100.0
2000	Ghanaian	F	25+	32.4	4.3	40.3	23.0	100.0
2000	Foreign	F	25+	44.5	4.6	30.1	20.8	100.0
2010	All	MF	15+	13.6	8.1	57.6	20.6	100.0
2010	Ghanaian	MF	15+	13.4	8.1	58.0	20.5	100.0
2010	Foreign	MF	15+	25.4	11.4	35.6	27.6	100.0
2010	All	M	15+	11.3	7.4	60.3	21.0	100.0
2010	Ghanaian	M	15+	11.0	7.3	60.8	20.9	100.0
2010	Foreign	M	15+	25.9	11.3	35.5	27.3	100.0
2010	All	F	15+	17.6	9.4	53.0	20.0	100.0
2010	Ghanaian	F	15+	17.5	9.4	53.2	19.9	100.0
2010	Foreign	F	15+	24.0	11.6	35.8	28.6	100.0
2010	All	MF	15-24	13.7	11.9	66.9	7.6	100.0
2010	Ghanaian	MF	15-24	13.4	11.8	67.3	7.5	100.0
2010	Foreign	MF	15-24	26.4	16.5	47.2	10.0	100.0
2010	All	M	15-24	11.4	11.6	70.1	6.9	100.0
2010	Ghanaian	M	15-24	10.9	11.4	70.7	6.9	100.0
2010	Foreign	M	15-24	27.3	18.0	46.6	8.1	100.0
2010	All	F	15-24	16.2	12.3	63.3	8.2	100.0
2010	Ghanaian	F	15-24	16.0	12.3	63.6	8.1	100.0
2010	Foreign	F	15-24	24.8	13.8	48.2	13.2	100.0
2010	All	MF	25+	13.6	7.1	55.1	24.2	100.0
2010	Ghanaian	MF	25+	13.4	7.1	55.5	24.1	100.0
2010	Foreign	MF	25+	25.0	9.6	31.6	33.8	100.0
2010	All	M	25+	11.3	6.5	58.2	24.1	100.0
2010	Ghanaian	M	25+	11.0	6.4	58.7	23.9	100.0
2010	Foreign	M	25+	25.5	9.3	32.2	32.9	100.0
2010	All	F	25+	18.2	8.3	49.0	24.5	100.0
2010	Ghanaian	F	25+	18.1	8.3	49.2	24.4	100.0
2010	Foreign	F	25+	23.7	10.4	29.6	36.3	100.0

Source: Authors' own work based on Minnesota Population Center (2015), Integrated Public Use Microdata Series, *http://doi.org/10.18128/D020.V6.5*

Table 3.A1.6a. **Skills mismatch between job requirements and qualifications, by sex and age group**

Year	Nativity status	Sex	Age	Overqualified (%)	Underqualified (%)
2000	All	MF	15+	3.0	57.9
2000	Ghanaian	MF	15+	3.0	57.8
2000	Foreign	MF	15+	3.2	64.7
2000	All	M	15+	2.7	51.1
2000	Ghanaian	M	15+	2.7	51.0
2000	Foreign	M	15+	3.0	61.1
2000	All	F	15+	3.2	64.8
2000	Ghanaian	F	15+	3.2	64.7
2000	Foreign	F	15+	3.4	68.6
2000	All	MF	15-29	3.8	53.7
2000	Ghanaian	MF	15-29	3.8	53.7
2000	Foreign	MF	15-29	4.1	58.4
2000	All	M	15-29	3.7	48.3
2000	Ghanaian	M	15-29	3.7	48.2
2000	Foreign	M	15-29	4.5	54.2
2000	All	F	15-29	3.9	58.9
2000	Ghanaian	F	15-29	3.9	58.9
2000	Foreign	F	15-29	3.8	61.9
2000	All	MF	30+	2.5	60.2
2000	Ghanaian	MF	30+	2.5	60.2
2000	Foreign	MF	30+	2.7	67.9
2000	All	M	30+	2.2	52.6
2000	Ghanaian	M	30+	2.2	52.5
2000	Foreign	M	30+	2.4	64.0
2000	All	F	30+	2.8	68.3
2000	Ghanaian	F	30+	2.8	68.2
2000	Foreign	F	30+	3.1	72.7
2010	All	MF	15+	5.5	47.6
2010	Ghanaian	MF	15+	5.5	47.4
2010	Foreign	MF	15+	6.8	59.9
2010	All	M	15+	5.4	40.9
2010	Ghanaian	M	15+	5.4	40.6
2010	Foreign	M	15+	7.2	57.7
2010	All	F	15+	5.6	54.0
2010	Ghanaian	F	15+	5.6	53.9
2010	Foreign	F	15+	6.2	63.2
2010	All	MF	15-29	5.9	42.7
2010	Ghanaian	MF	15-29	5.9	42.5
2010	Foreign	MF	15-29	7.4	56.5
2010	All	M	15-29	5.7	39.2
2010	Ghanaian	M	15-29	5.6	38.7
2010	Foreign	M	15-29	7.5	57.2
2010	All	F	15-29	6.1	45.9
2010	Ghanaian	F	15-29	6.1	45.8

Table 3.A1.6a. **Skills mismatch between job requirements and qualifications, by sex and age group** *(cont.)*

Year	Nativity status	Sex	Age	Overqualified (%)	Underqualified (%)
2010	Foreign	F	15-29	7.4	55.6
2010	All	MF	30+	5.3	50.2
2010	Ghanaian	MF	30+	5.3	50.0
2010	Foreign	MF	30+	6.3	62.6
2010	All	M	30+	5.3	41.8
2010	Ghanaian	M	30+	5.2	41.5
2010	Foreign	M	30+	7.1	58.1
2010	All	F	30+	5.3	58.5
2010	Ghanaian	F	30+	5.3	58.3
2010	Foreign	F	30+	5.0	70.3

Source: Authors' own work based on Minnesota Population Center (2015), Integrated Public Use Microdata Series, *http://doi.org/10.18128/D020.V6.5*

Table 3.A1.6b. **Skills mismatch between job requirements and qualifications, by sex and age group, non-vulnerable employment**

Year	Nativity status	Sex	Age	Overqualified (%)	Underqualified (%)
2000	All	MF	15+	4.3	38.0
2000	Ghanaian	MF	15+	4.3	37.9
2000	Foreign	MF	15+	3.5	50.6
2000	All	M	15+	4.5	35.3
2000	Ghanaian	M	15+	4.5	35.2
2000	Foreign	M	15+	3.6	48.5
2000	All	F	15+	3.8	42.8
2000	Ghanaian	F	15+	3.8	42.7
2000	Foreign	F	15+	3.3	54.1
2000	All	MF	15-29	4.8	37.9
2000	Ghanaian	MF	15-29	4.8	37.8
2000	Foreign	MF	15-29	4.1	47.0
2000	All	M	15-29	5.3	35.0
2000	Ghanaian	M	15-29	5.3	34.8
2000	Foreign	M	15-29	4.8	44.8
2000	All	F	15-29	4.1	42.1
2000	Ghanaian	F	15-29	4.2	42.0
2000	Foreign	F	15-29	3.2	49.6
2000	All	MF	30+	3.9	38.1
2000	Ghanaian	MF	30+	3.9	37.9
2000	Foreign	MF	30+	3.2	52.5
2000	All	M	30+	4.1	35.5
2000	Ghanaian	M	30+	4.1	35.3
2000	Foreign	M	30+	3.1	50.1
2000	All	F	30+	3.6	43.4
2000	Ghanaian	F	30+	3.6	43.2
2000	Foreign	F	30+	3.4	57.5

Table 3.A1.6b. **Skills mismatch between job requirements and qualifications, by sex and age group, non-vulnerable employment** *(cont.)*

Year	Nativity status	Sex	Age	Overqualified (%)	Underqualified (%)
2010	All	MF	15+	9.0	31.7
2010	Ghanaian	MF	15+	9.0	31.5
2010	Foreign	MF	15+	10.1	43.2
2010	All	M	15+	9.2	28.8
2010	Ghanaian	M	15+	9.1	28.5
2010	Foreign	M	15+	10.1	43.8
2010	All	F	15+	8.8	36.7
2010	Ghanaian	F	15+	8.8	36.6
2010	Foreign	F	15+	10.0	41.9
2010	All	MF	15-29	8.8	30.5
2010	Ghanaian	MF	15-29	8.8	30.2
2010	Foreign	MF	15-29	11.0	43.5
2010	All	M	15-29	9.4	28.7
2010	Ghanaian	M	15-29	9.4	28.3
2010	Foreign	M	15-29	10.6	45.4
2010	All	F	15-29	8.1	32.6
2010	Ghanaian	F	15-29	8.1	32.5
2010	Foreign	F	15-29	11.8	39.9
2010	All	MF	30+	9.2	32.5
2010	Ghanaian	MF	30+	9.2	32.4
2010	Foreign	MF	30+	9.2	43.0
2010	All	M	30+	9.0	28.9
2010	Ghanaian	M	30+	9.0	28.6
2010	Foreign	M	30+	9.7	42.5
2010	All	F	30+	9.5	40.5
2010	Ghanaian	F	30+	9.5	40.4
2010	Foreign	F	30+	7.5	44.8

Source: Authors' own work based on Minnesota Population Center (2015), Integrated Public Use Microdata Series, *http://doi.org/10.18128/D020.V6.5*

Chapter 4

How immigrants affect labour markets in Ghana

When considering how immigration affects an economy, a key concern is whether native-born individuals lose their jobs or get paid less because of the presence of foreign-born workers. This chapter addresses this question based on an econometric approach. Following a section on wage differences, the chapter examines the evolution and trends of the employment, unemployment, paid employment and wages of native-born individuals across levels of education and work experience. The chapter also examines the impact of foreign-born workers on these four labour market outcomes of native-born workers and provides policy implications.

The analysis in Chapter 3 indicated that foreign-born workers constitute a small proportion of the labour force, and are not a major factor shaping labour market outcomes in Ghana. The analysis also demonstrated that labour market opportunities are important for foreign-born workers, and the occupational distributions of foreign-born and native-born workers are fairly similar.

The current chapter examines to which extent immigration is beneficial or detrimental to labour market outcomes for native-born workers based on a formal econometric approach. In particular, the impact of the presence of foreign-born workers on the level of employment and wages of native-born workers is examined, as well as on the level of paid employment and unemployment. In general, the literature on the labour market impact of immigration does not find strong effects, and such effects are often dependent on the level at which the analysis is undertaken (national versus sub-national), and on which groups are considered (e.g. all immigrant workers or immigrant workers who arrived in recent years).

This chapter finds that the presence of immigrant workers may reduce employment at the national level, although the same is not true with regard to paid employment. The presence of new immigrants appears to be detrimental for employment of native-born women, but does not have an effect on the employment of men.

Immigrant wages increased and surpassed native-born wages

As described in Chapter 3, foreign-born workers are well integrated in the labour market, and the quality of employment as captured by the vulnerable employment rate is consistently higher for foreign-born workers. Foreign-born workers are also different from native-born workers in terms of characteristics such as human capital, which helps explain disparities seen in average wage levels.

While foreign-born workers earned on average about two-thirds of the wage of Ghanaian-born workers in 2006, this reversed in 2013 when wages of foreign-born workers exceeded those of native-born workers. Considering gender differentials, both native- and foreign-born women earn less than their male counterparts. While such differentials were approximately the same magnitude for foreign- and native-born workers in 2006, this dramatically changed in the year 2013 as the gender gap for foreign-born workers was three times as high as that of Ghanaian-born workers (Table 4.1).

Table 4.1. **The real wage of foreign-born workers surpassed that of Ghanaian-born workers**

Monthly real wages by place of birth, sex and year (2010 GHS)

	Ghanaian-born			Foreign-born		
	Men	Women	Total	Men	Women	Total
2006	224	161	208	146	88	137
2013	510	378	470	672	283	597

Source: Authors' own work based on Ghana Statistical Service (2016).

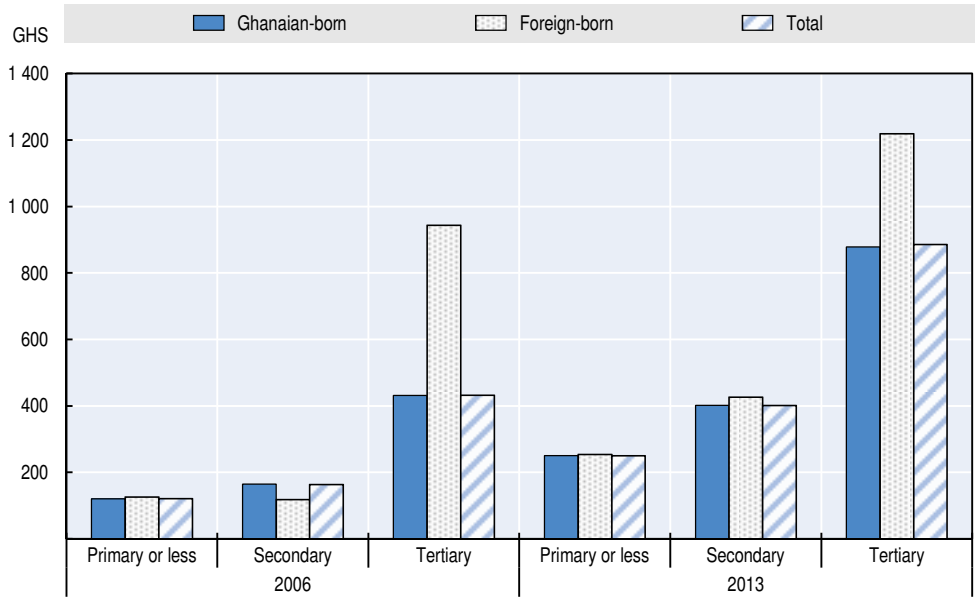
To analyse wages by level of education, workers have been grouped into five levels of education: no education, primary, secondary, tertiary and other education. As was discussed in Chapter 3, both Ghanaian-born and foreign-born workers have relatively low levels of education, while a relatively high proportion of foreign-born workers have attained tertiary education. These findings are also reflected in the average years of education. Individuals in Ghana attended school for an average of 4.4 years in 2006, which increased to 5.2 years in 2013. While Ghanaian-born workers had, on average, more years of schooling than their foreign-counterparts in 2006, this reversed in 2013.

Average real monthly wages increased across all education levels (Figure 4.1). While an individual with primary education or less earned on average GHS 121 per month in 2006, someone having attained a tertiary education earned GHS 433. These rates almost doubled within the following seven years to GHS 251 and 887, respectively. Similar to the findings of Ackah et al. (2014) and Sparreboom (2016), Figure 4.1 suggests increasing returns to education in Ghana – while the returns seem to increase slowly for those having obtained secondary education, they rise steeply for tertiary education. This pattern seems in line with recent studies suggesting relatively high returns at higher levels of education (Colclough et al., 2010; Sparreboom, 2016). The pattern is similar for native-born and foreign-born workers, although the latter appear to benefit from considerably higher returns to tertiary education.

At the regional level, Upper West has the highest average real monthly wage (GHS 791), followed by the Central and Volta regions (Table 4.2). Greater Accra, the region of the capital, had an average monthly wage in the medium range, while having the highest levels of education both for Ghanaian- and foreign-born individuals (7.2 and 9.9 years respectively). Northern, Brong Ahafo and Eastern regions demonstrate the highest rates of poverty (Cooke et al., 2016), and show some of the lowest real wages. Overall, the pattern suggests that average educational attainment is positively linked with average real wages for foreign-born workers, while the opposite is true for native-born workers.

Figure 4.1. **Monthly real wages increase with levels of education, in particular for foreign-born workers**

Monthly real wages by place of birth, educational attainment and year (2010 GHS)



Source: Authors' own work based on Ghana Statistical Service (2016).

Table 4.2. **Average real wages decrease as one moves towards the poorer north**

Monthly real wages (2010 GHS) and average years of education by region and place of birth for 2013

	Mean real wage			Average years of education		
	Total	Ghanaian	Foreign-born	Total	Ghanaian	Foreign-born
Upper West	791	791	787	3.0	3.0	2.9
Central	596	604	428	5.1	5.1	4.8
Volta	557	559	350	4.5	4.5	4.2
Northern	556	556	527	2.3	2.4	1.1
Western	502	501	675	5.5	5.5	4.3
Greater Accra	495	490	804	7.3	7.2	9.9
Ashanti	450	446	625	5.8	5.8	5.6
Upper East	414	415	..	3.1	3.1	3.6
Eastern	344	344	309	5.4	5.4	5.8
Brong Ahafo	302	305	173	4.6	4.6	5.0
National	473	470	597	5.2	5.2	5.5

Note: Real wage for foreign-born workers in the Upper East region are not available.

Source: Authors' own work based on Ghana Statistical Service (2016).

Wage differentials can in part be attributed to differences in the personal characteristics of Ghanaian- and foreign-born workers. Mincer-type regressions are undertaken to analyse what characteristics cause the discrepancies in real monthly wages between the foreign- and native-born workers (see Table 4.3). Even if the differences between native- and foreign-born workers cannot be fully explained by such variables, noteworthy patterns arise. In the basic model, foreign-born workers earn 12% more than their native-born counterparts (Table 4.3, model 1). Across the first four models, controls are introduced for location in urban areas, sector and occupation, but this does not have much of an effect on the differences between native-born and foreign-born workers. In other words, there are additional factors that affect the differences in wages between the native-born and the foreign-born. In all models, female workers earn less than male workers, even when education and experience are taken into account.

Foreign-born workers have similar wages as Ghanaian-born workers in low- and medium-skilled occupations (Table 4.3, models 5-8). However, differences between foreign- and native-born workers become significant in high-skilled occupations (legislators, senior officials/managers, professionals, and technicians), if sectoral differences are taken into account (model 10). Foreign-born workers are likely to earn 29% more in high-skilled occupations when compared to Ghanaian-born workers in the same sector. These results suggest there is some segmentation between native-born and foreign-born workers in Ghana. For example, high-skilled foreign-born workers are more likely to find employment in formal or less precarious forms of work, and are less likely to be underqualified (see also Chapter 3).

Table 4.3. **No significant wage differentials exist between native- and foreign-born workers in low and medium-skilled occupations**

Regressions of log monthly income on immigrant status

	All Workers				Low-skilled Occupations		Medium-skilled Occupations		High-skilled Occupations	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
VARIABLES										
Foreign-born	0.12*	0.12*	0.13**	0.12**	0.00	-0.03	0.13	0.13	0.24	0.29**
	(0.07)	(0.07)	(0.07)	(0.06)	(0.17)	(0.14)	(0.09)	(0.09)	(0.16)	(0.14)
Experience	0.04***	0.04***	0.04***	0.04***	0.03***	0.04***	0.05***	0.04***	0.04***	0.04***
	(0.00)	(0.00)	(0.00)	(0.00)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)
Secondary education	0.40***	0.39***	0.35***	0.30***	0.27***	0.24***	0.42***	0.36***	0.12	0.03
	(0.04)	(0.04)	(0.04)	(0.04)	(0.05)	(0.04)	(0.06)	(0.06)	(0.22)	(0.24)
Tertiary education	1.35***	1.34***	1.27***	1.10***	0.55***	0.54***	1.26***	1.12***	1.04***	0.94***
	(0.04)	(0.04)	(0.05)	(0.05)	(0.16)	(0.15)	(0.10)	(0.10)	(0.22)	(0.24)
Other education	0.33	0.33	0.29	0.21	0.07	-0.02	-0.35	-0.32	0.96**	0.84**
	(0.39)	(0.39)	(0.36)	(0.33)	(0.13)	(0.23)	(0.83)	(0.68)	(0.38)	(0.36)

Table 4.3. **No significant wage differentials exist between native- and foreign-born workers in low and medium-skilled occupations** *(cont.)*

	All Workers				Low-skilled Occupations		Medium-skilled Occupations		High-skilled Occupations	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Female	-0.34***	-0.35***	-0.27***	-0.26***	-0.56***	-0.49***	-0.24***	-0.11	-0.26***	-0.25***
	(0.04)	(0.04)	(0.04)	(0.04)	(0.06)	(0.06)	(0.07)	(0.08)	(0.06)	(0.06)
Constant	3.86***	3.90***	3.72***	4.45***	4.17***	3.89***	3.68***	3.52***	4.08***	4.31***
	(0.06)	(0.06)	(0.08)	(0.15)	(0.09)	(0.10)	(0.11)	(0.12)	(0.23)	(0.31)
Observations	7 346	7 346	7 346	7 346	1 989	1 989	3 002	3 002	2 197	2 197
R-squared	0.37	0.37	0.41	0.42	0.35	0.41	0.28	0.32	0.39	0.43
Year and area fixed effect	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes
Urban fixed effect	.	yes	yes	yes	.	.	.	.	.	.
Sector fixed effect	.	.	yes	yes	.	yes	.	yes	.	yes
Occupation fixed effect	.	.	.	yes	.	.	.	.	.	.

Robust standard errors in parentheses
*** p < 0.01, ** p < 0.05, * p < 0.1

Note: Regressions are weighted and standard errors are clustered by year and district.
Source: Authors' own work based on Ghana Statistical Service (2016).

Immigrants affect native-born employment rates, but by how much remains unclear

According to economic theory, the influx of migrants for employment related purposes increases the supply of labour in countries of destination and accordingly results in the adjustment of wages and employment. The nature of such adjustments depends on a variety of assumptions at a theoretical level, while empirical studies undertaken in high-income countries tend to demonstrate limited effects (Longhi, Nijkamp & Poot, 2008). Nevertheless, the aforementioned effects are more likely to be negative for certain sub-groups of the population including low-income workers and prior immigrant cohorts (Barone and Mocetti, 2011; Borjas, 1994, 1999, 2003, 2006, 2014; Friedberg and Hunt, 1995; Hanson, 2008; Kerr and Kerr, 2011; Longhi et al., 2005, 2010).

The increasing interest in the labour market effects of immigration in developing countries has resulted in small but growing literature on the impact of immigration in these countries (e.g. Facchini et al., 2013; Gindling, 2008; Pholpirul and Kamia, 2014). Few studies exist to date on sub-Saharan African countries, and Ghana is not an exception in this regard. Most of the literature on Ghana concerns descriptive characteristics of migrants, or focuses on the effects of emigration, including brain drain and remittances.

Following Borjas (2003), immigration is analysed in this chapter based on two dimensions – education and experience. As noted by Borjas, both

dimensions have been emphasised by human capital theory (Becker, 1975; Mincer, 1974). Education and experience jointly determine the skill cells, which are central to the analysis of immigration in this chapter. The analysis uses data from the 2000 and 2010 Ghana population census as well as from Ghana's fifth and sixth Living Standard Survey (the year 2006 and 2013, respectively).[1]

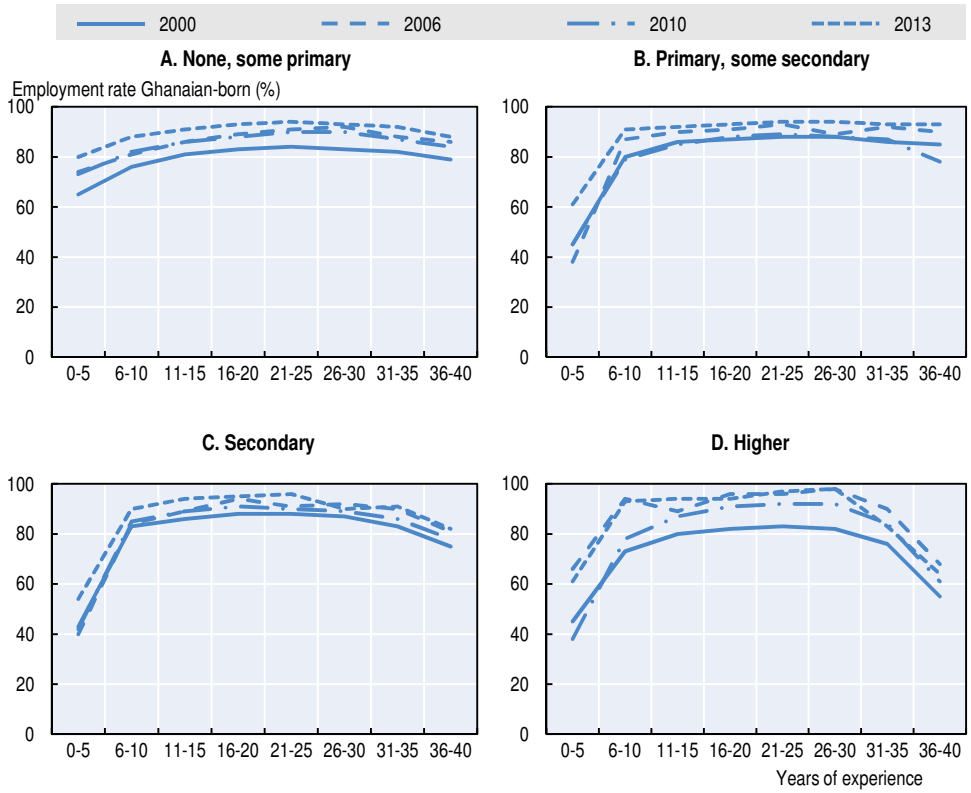
The skill cell approach assesses how labour market outcomes of Ghanaian-born workers of a certain skill level are affected by the proportion of immigrant workers of the same skill level. Skill levels are approximated by dividing the working-age population of Ghana into groups based on four levels of educational achievement and eight levels of years of experience. Subsequently, variations in the proportion of immigrants across skill cells are used to assess the impact of immigration on labour market outcomes (see Annex 4.A1 for methodological details). Labour market outcomes included in the analysis are the employment-to-population ratio (EPR) and the unemployment rate of Ghanaian-born workers. Furthermore, the rate of paid employment of Ghanaian-born workers is used in order to provide insights into the quality of employment of Ghanaian-born workers in the presence of foreign-born workers (Sparreboom and Albee, 2011).

Employment rates for Ghanaian workers have increased over time

The employment rate of native-born workers has increased over time for workers across all levels of experience with less than a completed primary level of education, achieving its highest level in 2013 (Figure 4.2). The same conclusion can be drawn for the employment rate of native-born workers that have a completed primary or completed secondary education level. The sole difference is that the increase was not gradual but rather fluctuated, which is especially pronounced for those with a completed primary education. Additionally, on average, a decline in employment rate is observed across all education groups at the edges of the experience range – there are relatively fewer employed Ghanaian-born workers with few or many years of working experience compared to workers in the middle of the range. The effect is most evident with native-born workers that have attained a higher level of education. This may be because workers early in their careers are more likely to be cyclically unemployed as they look for the right job or continue their education, while more experienced workers may start retiring, in some cases before they leave the working-age population (particularly at higher levels of education).

Figure 4.2. **A decline in employment rate is observed at the edges of the experience range, especially for higher levels of education**

Native-born employment rate as % of the working-age population (15 – 64) by skill level and years



Source: Authors' own work based on Minnesota Population Center (2015), Integrated Public Use Microdata Series, *http://doi.org/10.18128/D020.V6.5* and Ghana Statistical Service (2016).

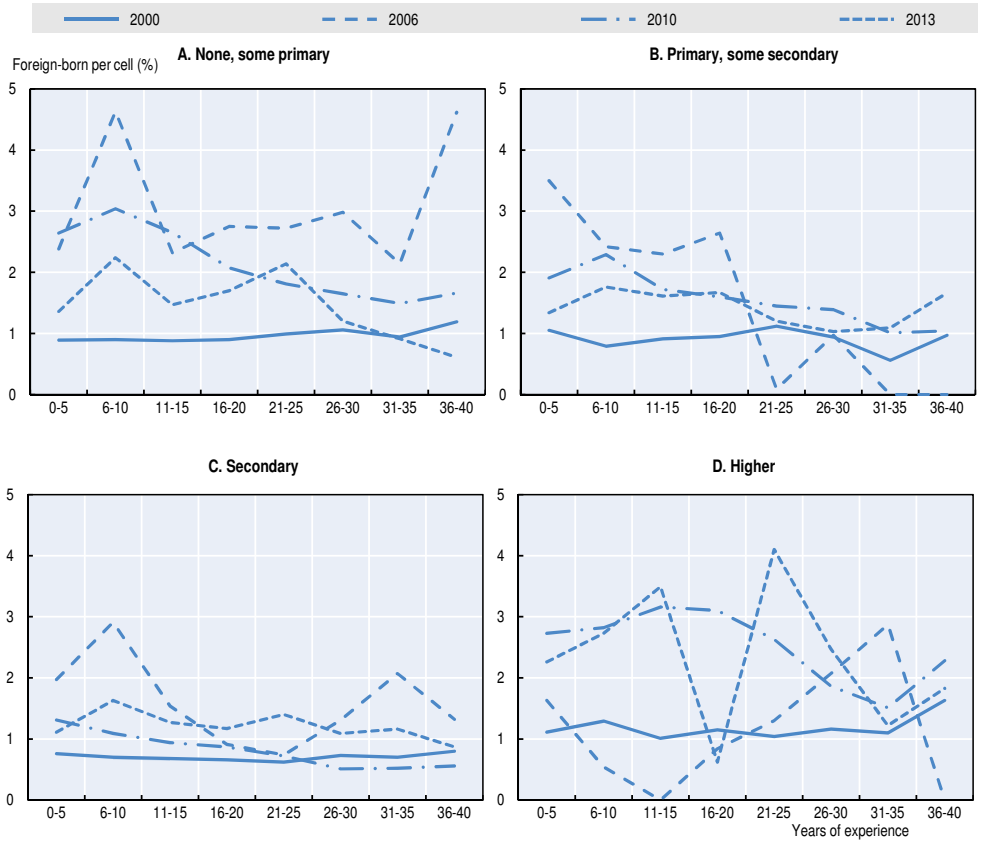
Immigrant workers in Ghana are to a large extent highly educated

Over time, the share of immigrants with less than primary education has dropped across all levels of experience, while those with completed primary and secondary education have roughly remained the same. In 2006, persons with less than primary education and 6 to 10 years of working experience represented about 4.6% of the immigrant population. In 2013, this share declined to 2.2%. On average, the decline across all years of experience amounted to 1.6 percentage points of which the largest could be witnessed for individuals with 36 to 40 years of experience (4 percentage points). For primary and secondary educational levels, the differences between the years 2006 and 2013 were

smaller with a respective average decrease of 0.07 and 0.38 percentage points across all levels of experience. Concerning individuals with higher education in 2013, a gradient rise in the share can be seen for individuals under 15 years of experience, after which a gradient decline is witnessed for those with 21 to 35 years of experience.[2] Nevertheless, as was demonstrated in Chapter 3 and confirmed in Figure 4.3, the migrant share of the working-age population strongly suggests that Ghana has received higher proportions of higher educated immigrants over the past years. This is particularly the case in 2013, in which the share of foreign-born in the working-age population is relatively low among those with secondary education or less than compared to those with higher education (Figure 4.3).

Figure 4.3. **Relatively many immigrants had a higher level of education in 2013**

The foreign-born workers as a percentage of the working-age population (15 – 64) by skill level and years

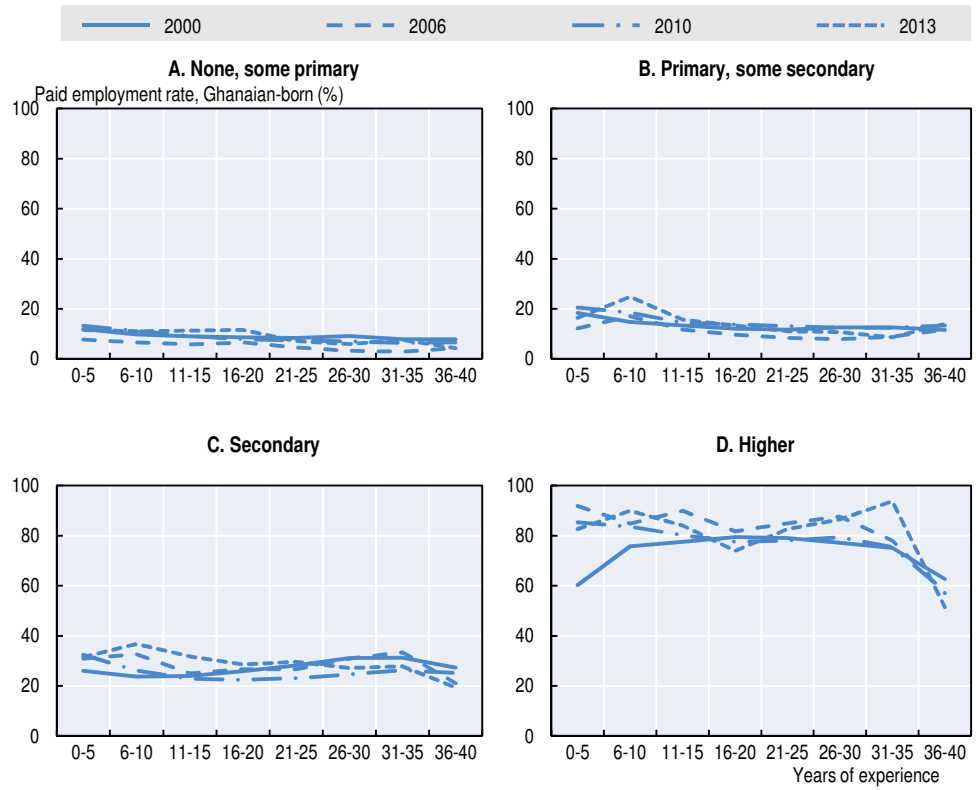


Source: Authors' own work based on Minnesota Population Center (2015), Integrated Public Use Microdata Series, *http://doi.org/10.18128/D020.V6.5* and Ghana Statistical Service (2016)

While native-born paid employment as a percent of all native-born employed workers increases considerably with education, the rate of native-born paid employed has remained relatively stable over the four considered years for workers at all levels of experience with a completed secondary education and lower (Figure 4.4). More volatility can be seen across experience levels when considering native-born paid workers with higher than secondary education. The data also seems to suggest that workers are less likely to remain in paid employment until retirement, especially for those with secondary education and higher.

Figure 4.4. **Paid employment rates are far higher for better educated workers**

Ghanaian-born paid employment rate (15-64) by skill levels and years

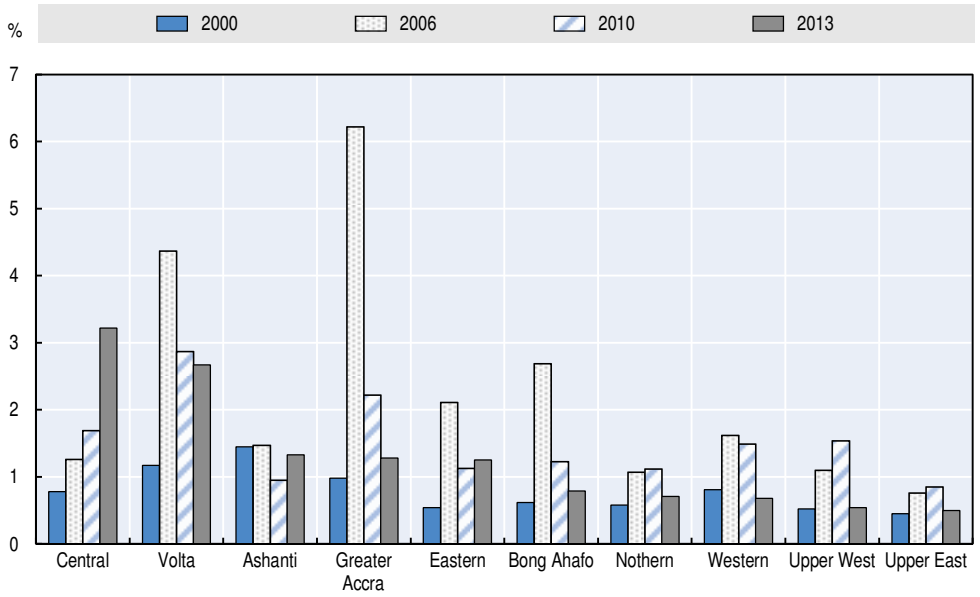


Source: Authors' own work based on Minnesota Population Center (2015), Integrated Public Use Microdata Series, *http://doi.org/10.18128/D020.V6.5* and Ghana Statistical Service (2016), *Ghana Living Standard Survey 2006 and 2013 microdata http://www.statsghana.gov.gh/nada/index.php/home*

Considering the two census waves (2000 and 2010), the immigrant share in all regions increases, except in the Ashanti region (Figure 4.5). The largest increases from 2000 to 2013 can be seen in three specific regions: Central, Volta and Eastern. In the Central region, the migrant share increases from 0. 8% in 2000 to 3.2% in 2013; it increases from 1.2% in 2000 to 2.7% in 2013 in the Volta region; and it increases in the Eastern region from 0.5% in 2000 to 1.3% in 2013. In the Western and Ashanti regions, however, the migrant share of working-age population declines from 0.8% and 1.5% in 2000 to 0.7% and 1.3% in 2013, respectively. The data therefore seems to suggest that over time (2000 to 2013) there has been an increase in the migrant share in most of the regions in Ghana, but especially in the regions that are adjacent to the Greater Accra region, which is the economic and administrative heart of Ghana. However, it needs to be kept in mind that the foreign-born shares as well as their variations are quite low to begin with. Furthermore, the same conclusions hold when considering the native-born paid employment rates with the largest increases witnessed in Greater Accra, Eastern and Central (Figure 4.6).

Figure 4.5. **The largest immigrant shares are found in the regions closest to its economic heart: Accra**

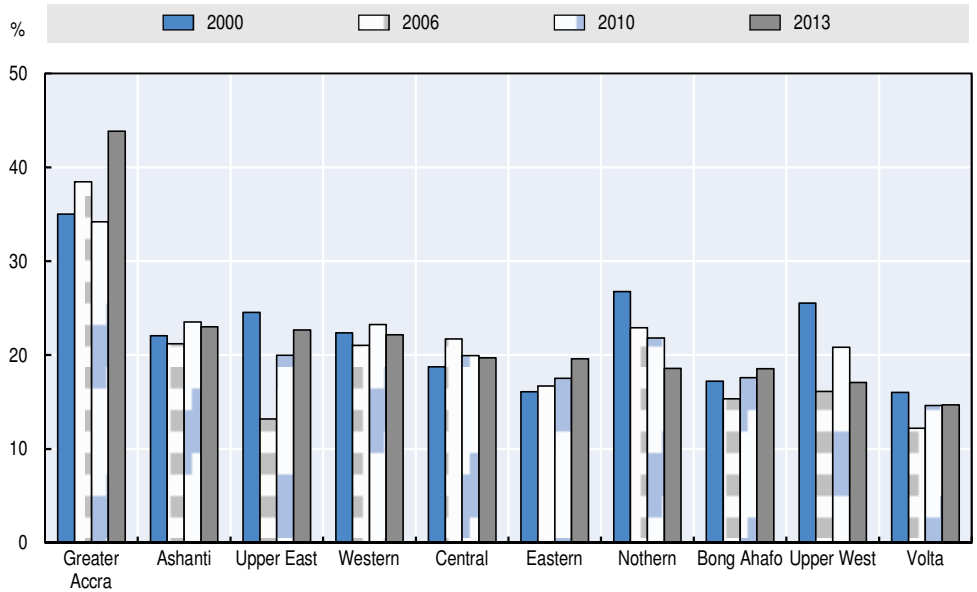
Immigrant share of working-age population by region (%)



Source: Authors' own work based on Minnesota Population Center (2015), Integrated Public Use Microdata Series, *http://doi.org/10.18128/D020.V6.5* and Ghana Statistical Service (2016)

Figure 4.6. **The Greater Accra region has a native-born paid employment rate that is two to three times greater than those in other regions**

Native-born paid employed as a percent of all native-born employed workers, by region (%)



Source: Authors' own work based on Minnesota Population Center (2015), Integrated Public Use Microdata Series, *http://doi.org/10.18128/D020.V6.5* and Ghana Statistical Service (2016), *Ghana Living Standard Survey 2006 and 2013 microdata http://www.statsghana.gov.gh/nada/index.php/home*

Immigrants do not affect unemployment or quality of employment of Ghanaian-born workers

In order to provide a response to the question posed at the beginning of this chapter, the analysis firstly assesses the correlation between immigration and native-born labour market outcomes for Ghanaian-born men and women at both the national and regional level. This is followed by a national level analysis of men and women separately. Furthermore, it is assumed that immigrants will assimilate into the labour market over the long-run; thus, an additional analysis of the impact of recent immigrants (those residing in Ghana for less than 10 years) on the native-born labour market outcomes is undertaken. All regressions have been done on the full sample, which includes the 2010 population census, the 2006 and 2013 Ghana Living Standard survey waves and all four education and eight experience levels.[3] Table 4.4 provides the sign of the estimated impact of the immigrant share of the economically active workers per skill cell on the native-born total and paid employment rate as well as on the native-born unemployment rate (see Table A4.1 for the magnitude of the estimated coefficients).

The negative relationship between the immigrant share of the economically active workers and the native-born employment rate suggests that the presence

of immigrants in a skill cell negatively affects the overall employment rate of Ghanaian-born workers (Table 4.4, model 1). This could imply that immigrant workers are directly competing with the native-born. When taking into consideration regional variations, the presence of immigrant workers does not seem to have a significant effect on the native-born employment rate. This suggests that immigrants do not displace the native-born at the sub-national level.[4] When considering the level of native-born unemployment, the presence of foreign-born workers does not have a significant effect at either the national or the sub-national level. Thus, although immigrants seem to decrease the employment rate of Ghanaian-born workers, no effect is seen on the unemployment rate. This would suggest that if native-born workers lose their jobs, they also leave the labour force (and are not among the unemployed). It seems therefore likely that immigration is detrimental for workers with a relatively weak attachment to the labour force.

The effects on the level of employment and unemployment are not the only important issues to consider – it is also important to observe how the quality of Ghanaian-born employment changes in the presence of immigrants. In order to achieve this, the relationship between immigration and the native-born paid employment rate is considered. The paid employment rate can be used as a proxy for quality of employment as workers in wage employment tend to have more formal work arrangements and are not considered to be in vulnerable employment (see also Chapter 3). At both the national and sub-national levels, the paid employment rate of Ghanaian-born workers is not impacted by the presence of immigrants. This could suggest that the quality of employment has not been impacted by the presence of immigrants; however, caution is needed as an important part of the wage-employed could still fall into informal or casual work, in which case the decline in the quality of work is masked.

Table 4.4. **Immigrants have an effect on the native-born labour market outcomes, especially for women**

Summary of the regression results on the relationship between native-born labour market outcomes and immigrant shares

Variables	All workers National	All workers sub-national	Men	Men (controlling for women)	Women	New immigrants
(1) Employment rate of Ghanaian-born workers	–	o	o	o	o	o
(2) Unemployment rate of Ghanaian-born workers	o	o	o	o	+	o
(3) Paid employment rate of Ghanaian-born workers	o	o	o	o	–	–
(4) Real wages of Ghanaian-born workers	o	o	o	o	o	o

Note: The table reports the sign of the immigrants' share variables from regressions where the dependent variable is the mean Ghanaian-born labour market outcome for an education*experience group at a particular point in time. A 'o' indicates no significant effect; a '+' indicates a significant positive effect; a '-' indicates a significant negative effect.

Source: Authors' own work based on Minnesota Population Center (2015), Integrated Public Use Microdata Series, *http://doi.org/10.18128/D020.V6.5* and Ghana Statistical Service (2016).

When considering the impact of the presence of immigrants at the national level on native-born men and women separately, no significant effects can be found for the sample of men; while for women, significant relationships exist between the share of immigrants and the unemployment and paid employment rates. Not only does the presence of immigrant women increase the unemployment rate of native-born women, it also decreases the rate of paid employment. This could suggest that immigrant women are strong substitutes for native-born women, and that the latter might be pushed into vulnerable employment, while additionally increasing competition for employment in the labour market as immigrant women seem to increase the unemployment rate of native-born women. The results could also have an alternative interpretation in that the positive correlation between the presence of immigrant women and the unemployment rate of native-born women could indicate that female immigrants are attracted to occupations in which native-born individuals do not want to be employed or want to move out off in search of better opportunities elsewhere or as a result of retraining.

Lastly, the impact of recently arrived migrant workers on the aforementioned labour market outcomes of the native-born was analysed. It is found that while new immigrants do not have a significant effect on the employment and unemployment rate of Ghanaian-born workers, they do appear to negatively affect the rate of paid employment. This potentially increases the number of workers in vulnerable employment and/or decreases the quality of employment through an increase in informality or a deterioration in working conditions.

Conclusions

The analysis in this chapter aimed to quantify some of the effects of immigration on the Ghanaian labour market based on the widely used approaches developed in Borjas (2003) and applied by Facchini, Mayda, and Mendola (2013), De Brauw and Russell (2014) and others. The impact of immigration on native-born workers has been assessed by a regression analysis of the relationship between labour market outcomes of Ghanaian-born workers and the proportion of economically active immigrants with a comparable level of skills. Overall, an increased share of immigration seems to be negatively correlated with some native-born labour market outcomes, and in particular the outcomes for native-born women.

The presence of foreign-born workers is associated with a lower employment rate for native-born workers. Given that the unemployment rate is not affected, it seems that effects at this level are important for workers with a relatively weak attachment to the labour market. It should also be born in mind that a reduction in the national employment rate is not necessarily a bad development. Employment rates in low income countries are typically higher than in high-income countries, and are likely to decrease when countries become wealthier and productivity rises (Elder, 2011).

In this sense, the potentially negative effects of the presence of foreign-born workers on the paid employment rate are a greater cause for concern. The negative correlation between the presence of foreign-born workers and the paid employment rate for women indicates that native-born female workers are more prone to being pushed into own account work or other forms of vulnerable employment. Similarly, immigration may make it more difficult for some groups of workers to find paid employment, although these effects diminish over time, probably because immigrant workers assimilate and integrate into the native-labour market.

Nevertheless, these findings suggest that attention should be paid to the potential detrimental labour market effects of immigration for particular groups in the labour market, and in particular women. This means that measures to support the labour market position of women merit special attention, including education and training, as well as options for entrepreneurship development. Some of these measures already feature in the Ghanaian employment policy (Ministry of Employment and Labour Relations, 2014).

Notes

1. While data from the 2000 Census is kept for the descriptive analysis, it was excluded in the econometric analysis due to certain limitations arising from the low share as well as low variation of the foreign-born indicator.
2. These irregular trends observed in this quadrant most likely result from the relatively fewer observations on which rates in those cells are based.
3. The 2000 Census could not be utilised for the regression analysis due to data limitations.
4. Nevertheless, given the large number of education*experience*region cells used in these regressions, it is likely that some skill cell aggregates are based on relatively small numbers of migrants, and might not be very representative of the actual migrant density in the region.
5. Age minus 15 minus years of education

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Technical Annex

Annex 4.A1. Methodology of labour market impact assessment

Following Borjas (2003), skill cells based on education and experience are used to assess how labour market outcomes of Ghanaian-born workers of a certain skill level are affected by the proportion of migrant workers of the same skill level. Accounting for any interactions between education and experience, and changes in these variables over time, the main equation to be estimated becomes:

$$Y_{ijt} = \beta m_{ijt} + e_i + w_j + c_t + (e_i * w_j) + (e_i * c_t) + (w_j * c_t) + u_{ijt} \quad (1)$$

Where Y_{ijt} is the labour market outcome for a Ghanaian-born worker with education i (i = 1...4) and work experience j (j = 1...8) for year t. Furthermore:

$$m_{ijt} = M_{ijt} / (M_{ijt} + N_{ijt}) \quad (2)$$

Where M_{ijt} is the number of foreign-born workers with education i, work experience j at time t and N_{ijt} is the number of Ghanaian-born workers with education i, work experience j at time t. The other explanatory variables are a set of fixed effects that aim to take into account the education level (e_i), work experience (wj) and the time period (ct).

The analysis can be extended to include the impact of women on labour market outcomes of Ghanaian-born workers (see De Brauw and Russell, 2014), by including the following control variable:

$$w_{ijt} = W_{ijt} / (W_{ijt} + K_{ijt}) \quad (3)$$

Where W_{ijt} is the number of women (both Ghanaian - and foreign-born) with education i, work experience j at time t and K_{ijt} is the number of men (both Ghanaian - and foreign-born) with education i, work experience j at time t.

The analysis can also be adjusted to take into account the regional distribution of migrants along with their skill distribution (see Facchini et al., 2013). The equation to be estimated becomes:

$$Y_{klt} = \beta m_{klt} + d_k + s_l + c_t + (d_k * s_l) + (d_k * c_t) + (s_l * c_t) + u_{klt} \quad (4)$$

Where Y_{klt} is the labour market outcome for a Ghanaian-born worker in district k (k = 1…K), skill level l (l = 1…4), at time t.

Data is aggregated at the level of skill cells, and regressions are weighted by the size of the economically active population per education*experience*year period.

The sample is restricted to individuals aged 15-64 who take active part in the labour market (i.e. are employed or unemployed), and includes both native men and women. Borjas (2003) argues in his analysis that work experience cannot be adequately approximated for both men and women in the US case, due to lower female labour force participation rates, particularly among older cohorts. While in the case of the US, changes in the labour force participation rate of men and women between 1960 and 2000 might have had a strong cultural component, this is not immediately evident for Ghana. Differences in employment rates by sex in 2010, for example, were small and women tend to be as present on the labour market as men. Furthermore, according to the World Bank's World Development Indicators, the female labour participation rate (percentage of female population ages 15-64) in Ghana was approximately 70.9% in 1990, 73.9% in 2000 and 68.5% in 2010. The female labour participation rate (percentage of female population ages 15-64) in Ghana is therefore much higher compared to the average female labour participation rate in for instance OECD members countries (56.4% in 1990, 59.0% in 2000, and 61.4% in 2010).

The adjustment made for women's experience on the labour market is based on the assumption made by de Brauw and Russell (2014) that women's actual labour market experience is systematically lower than their maximum potential labour market experience due to domestic responsibilities predominantly befalling women (see e.g. Blau and Kahn, 2013). They use a discrepancy of about 5.4 years between women's maximum potential[5] and actual labour market experience in the US, combined with age-specific fertility rates, to cumulatively adjust for women's labour market experience between the ages of 19 and 40. For lack of more detailed data on actual labour market experience in Ghana, this assumption is repeated in Chapter 4 using a gap of four years between maximum potential and actual work experience. These authors further find that including individuals with interruptions of full-time work experience can lead to measurement errors and biased estimates of the returns to experience as well as the quantity of post-school human capital investment. The lack of information on actual work experience can also have serious consequences for analysing differences in the gender pay gap.

Additionally, in Chapter 4, employees are those who work in return for a wage or income per month, per day, or per job. They may receive commission in return for the work or service they perform. The commission may be in the form of money or in kind payments. Employees may be divided into three types: 1) government employees, which refers to a civil servant, municipality officer, officer of the provincial administration organisation, personnel of the international organisation; 2) government enterprise employees; and 3) private

employees, who are those who work for a person or private business including those who are hired for household chores such as laundry, babysitting, cooking and house cleaning. This classification includes temporary and permanent employees.

Annex 4.A2. Regression results

Table 4.A2.1. **Estimates of effects of foreign-born share on labour market outcomes of Ghanaian-born workers, education*experience cells**

Variables	All workers National	All workers Sub-national	Men	Men (controlling for women)	Women	New immigrants
(1) Employment rate of Ghanaian-born workers	-1.590*	-0.055	-0.921	-0.650	-1.280	0.512
	(0.836)	(0.163)	(0.873)	(0.778)	(0.783)	(0.799)
(2) Unemployment rate of Ghanaian-born workers	0.141	-0.050	0.014	-0.100	0.358*	-0.171
	(0.163)	(0.061)	(0.176)	(0.205)	(0.201)	(0.388)
(3) Paid employment rate of Ghanaian-born workers	0.016	-0.074	0.481	0.400	-1.893***	-2.439**
	(0.641)	(0.136)	(0.540)	(0.572)	(0.648)	(1.025)
(4) Real wages of Ghanaian-born workers	-0.403	2.112	8.547	6.935	-4.298	-6.152
	(3.726)	(1.664)	(6.222)	(4.823)	(10.207)	(6.241)
R-squared	0.995	0.963	0.988	0.996	0.992	0.993

Note: The table reports the coefficient of the immigrants' share variables from regressions where the dependent variable is the mean Ghanaian-born labour market outcome for an education*experience group at a particular point in time. Stars indicate significance levels (*** p<0.01, ** p<0.05, * p<0.1). Robust standard errors are reported in parentheses. All regressions are based on the same 36 observations at the national level and 360 observations at the sub-national level per year and are weighted by the sample size of the education*experience*year cell. All regression models include education, experience, and period fixed effects, and a full set of two-way interactions.

Source: Authors' own work based on Minnesota Population Center (2015), Integrated Public Use Microdata Series, *http://doi.org/10.18128/D020.V6.5* and Ghana Statistical Service (2016), *Ghana Living Standard Survey 2006 and 2013 microdata http://www.statsghana.gov.gh/nada/index.php/home*

Chapter 5

Immigration and economic growth in Ghana

This chapter analyses the sectoral economic development of Ghana, which is in turn a major factor in the estimated contribution of immigration to economic growth. In this context, the educational attainment of foreign- and native-born workers is also taken into account. Thereafter, the chapter looks at factors that help explain why the contribution of foreign-born workers may be different from native-born workers based on qualitative studies of selected sectors. The chapter's final section offers policy recommendations.

Previous chapters provided the economic context of immigration in Ghana, and examined in particular the labour market position and impact of foreign-born workers. This chapter assesses the contribution of immigrant workers to GDP as well as to selected economic sectors, based on labour market and other information.

An expansion of the workforce will almost invariably increase a country's total output level, as shown for example by Borjas (1999). Assuming that the economic contribution of immigrant workers is broadly related to the number of workers, it is possible to make a quantitative assessment of the direct output generated by immigrants in Ghana. As the sectoral distribution of workers is a major determinant of the contribution to GDP, this chapter starts with a brief review of sectoral development of the Ghanaian economy and the position of foreign-born workers in this regard. It will be shown that foreign-born workers are underrepresented in agriculture and over-represented in several service sectors such as wholesale and retail trade and real estate and business services. They are also overrepresented in the economically important mining sector.

Based on the sectoral distribution, and assumptions regarding labour productivity, the chapter estimates foreign-born workers contribute around 1.5% of GDP. This is below their share in employment, which is due to the presence of foreign-born workers in relatively less productive sectors. The qualitative studies in trade and mining demonstrate how this contribution is shaped in practice, and examines the many ways in which the interaction of foreign-born and native-born workers affect the broader economy.

Structural change: The increasing importance of services

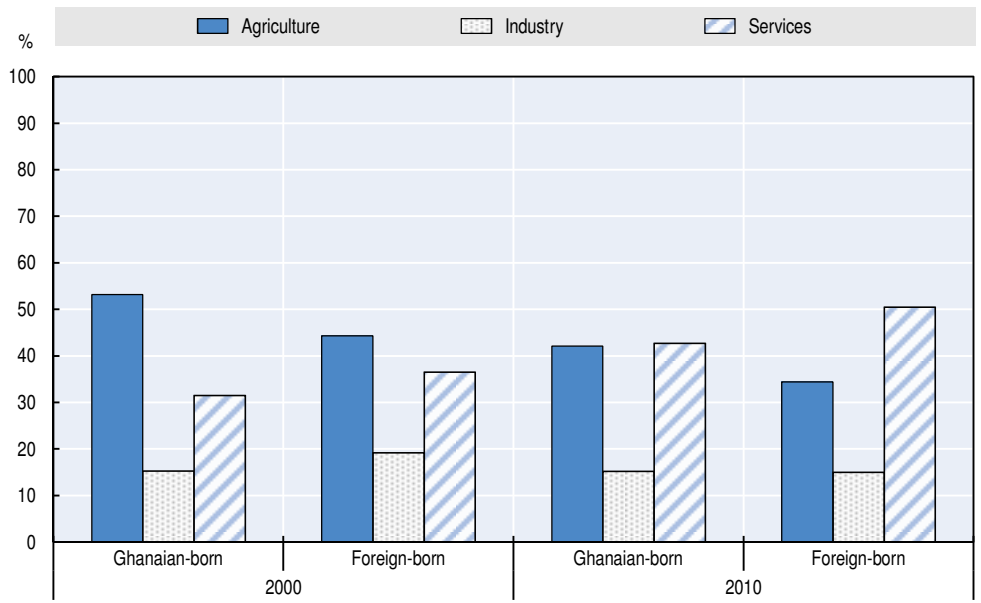
The standard development discourse suggests that, with economic growth, the vulnerable employment rate will decline and own-account work in traditional, subsistence agriculture gives way to wage employment in industry and services (Sparreboom and Albee, 2011). Between 2000 and 2010, agriculture indeed became less important for both Ghanaian-born and foreign-born workers (Figure 5.1). The share of Ghanaian-born workers in agriculture declined by 11 percentage points, and for foreign-born workers the decline was 10 percentage points. However, in contrast to the standard discourse, employment in industry declined marginally for Ghanaian-born workers and considerably for foreign-born workers. Consequently, services have become a more important source

of employment for both groups, and in particular for foreign-born workers. Services accounted for just above half of foreign-born employment in 2010 (51%), while the corresponding share for Ghanaian-born workers was 43%. In terms of GDP, services contributed 49% in 2010, compared with 31% for agriculture and 20% for industry. Most recent data suggest that, apart from the service sectors, the industrial sectors also have overtaken agriculture in terms of contribution to GDP (World Bank, 2017).

Within the broad services sector as well as across all sectors, the largest increase in the sectoral share of employment was demonstrated by wholesale and retail trade. The increase of low productivity employment in service sectors including trade, which has continued beyond 2010, has been linked to the recent discovery of oil and symptoms of the Dutch disease (CEPA, 2013; Sparreboom and Gomis, 2015). According to the Dutch disease scenario, the wealth generated by the oil sector stimulates the expansion of non-tradable sectors such as services, while the development of non-oil tradable sectors and in particular manufacturing stagnates or declines.

Figure 5.1. **Industrial employment declines while services are growing**

Employment by broad sector and place of birth (%)



Source: Authors' own work based on Minnesota Population Center (2015); see also Annex Table 5.A1.1.

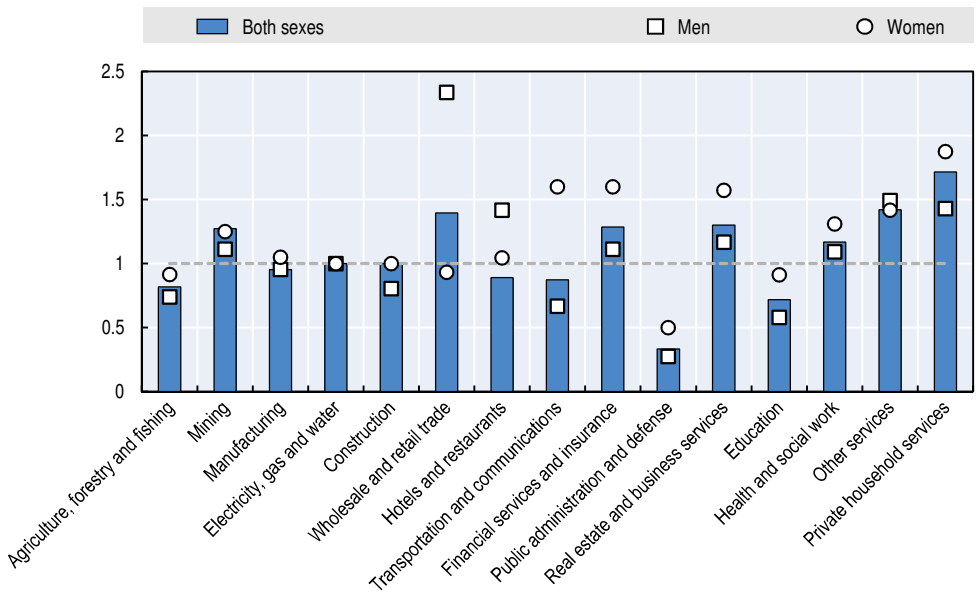
As is evident from broad sectoral employment distributions of Ghanaian-born and foreign-born workers, the two groups are not distributed equally across economic sectors. More detailed sectoral information shows that

foreign-born workers are overrepresented in private household services, other services, wholesale and retail trade, real estate and business services, financial services and insurance, mining and health and social work (Figure 5.2). In 2010, wholesale and retail trade accounted for more than a quarter of foreign-born employment (26%), compared with a share of 19% of Ghanaian-born employment. Almost 28% of male foreign-workers were employed in trade, compared with 12% of male Ghanaian-born workers. For women, the share of the foreign-born in employment in trade was lower than the commensurate share of the Ghanaian-born (23 and 25%, respectively).

Both female and male foreign-born workers are underrepresented in agriculture, which accounted for 42% of Ghanaian-born employment and 34% of foreign-born employment in 2010. Foreign-born workers are also underrepresented in public administration and defence, education, transportation and communications, hotels and restaurants and manufacturing. In some sectors, such as transportation and communications, foreign-born women are overrepresented but foreign-born men are not.

Figure 5.2. **Many foreign-born workers are in trade and other services**

Ratio of foreign-born and Ghanaian-born sectoral employment shares, 2010



Note: A ratio of one indicates that the number of foreign-born employed in a particular sector, expressed as a proportion of all foreign-born employed, is the same as the proportion of the native employed in this sector; ratio's exceeding one indicate 'overrepresentation' of foreign-born workers in a particular sector.

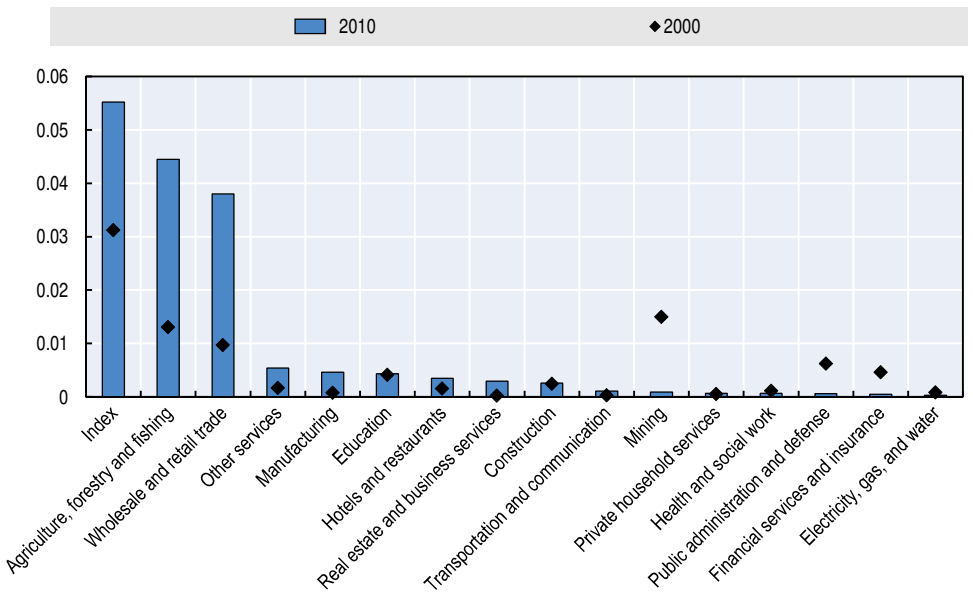
Source: Authors' own work based on Minnesota Population Center (2015); see also Annex Table 3.A1.6.

Sectoral employment patterns of native-born and immigrant workers have minimally diverged

One way to summarise differences in sectoral distributions between Ghanaian-born and foreign-born workers is to calculate the index of dissimilarity based on differences in their respective shares (see Annex 3.A1 for details). The index increased from 0.03 in 2000 to 0.06 in 2010 (Figure 3.7), meaning that the segregation between foreign-born and native-born workers across sectors has increased, even if only minimally. From 2000 to 2010, around half of the sectors witnessed an increase in the difference between native-born and foreign-born employment shares, but the increase in the index of dissimilarity over time was mainly driven by agriculture, mining and wholesale and retail trade.

Figure 5.3. **Most of the sectoral differences between native-born and immigrant workers are due to agriculture and mining**

Absolute value of the differences in sectoral employment of native- and foreign-born workers and index of dissimilarity



Note: The column "Index" represents the index of dissimilarity for the year 2000 and 2010. The remaining columns represent the absolute value of the difference between the native-born and foreign-born sectoral employment shares.
Source: Authors' own work based on Minnesota Population Center (2015).

Contribution of migrant workers to economic growth

An important question is whether immigration positively or negatively affects the level and growth rate of Ghana's real per capita income. At the theoretical level, the impact of immigration on GDP depends on a number of assumptions and the direction of this impact is not determined a priori.[1] At the

empirical level, the impact of immigration on GDP can be assessed by dividing GDP per capita into two components: (1) the share of the employed in the total population; and (2) labour productivity (GDP per employed worker).[2]

Based on the review in Chapter 3, the direct effect of employing immigrants in 2010 was an increase in the share of the employed in the total population. Even though the employment-to-population ratio of the foreign-born population (65%) was lower than that of native-born population (67%), the share of the foreign-born population of working age (76%) was much higher than the corresponding native-born share (62%). The resulting share of employment in the total population is therefore higher for foreign-born population (49%) than for the Ghanaian-born population (41%). The upward effect of this gap of 8 percentage points on the national share of employed is unlikely to be wiped out by the potentially negative impact of the presence of foreign-born workers on the native-born employment rate.

To assess the second component, it is useful to consider the capital-labour ratio, average human capital per worker and total factor productivity.[3] As will be seen below, average human capital per worker is lower for the foreign-born employed, despite the relatively high share of foreign-born workers with tertiary education (see Chapter 3). The effect of immigration on the capital-labour ratio is not known, and the overall effect of migrant labour on GDP per capita therefore cannot be ascertained with great accuracy.

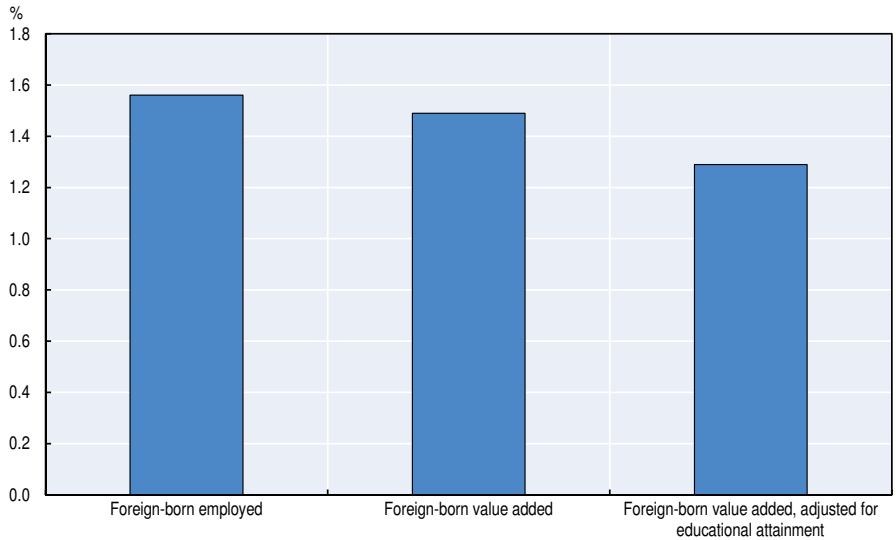
Contribution of migrant workers to GDP is just below their share in employment

Information on the sectoral employment distributions of Ghanaian-born and foreign-born workers, together with average sectoral labour productivity calculated across all workers, can be used to assess the contribution of the two groups to the economy. Taking this information into account, the contribution of the foreign-born employed to GDP in 2010 (1.5%) was lower than the commensurate share in employment (1.6%, see Figure 5.4). The reason is that foreign-born workers are less likely than native-born workers to be active in sectors with high productivity such as financial and insurance activities, and more likely to work in some low-productivity sectors such as trade and domestic services.

The assessment of the economic contribution of migrant workers can also take additional information regarding the productivity of workers within sectors into account, based for example on proxies such as years of education. The average number of years of education of foreign-born workers is below that for Ghanaian-born workers (5.6 and 6.4 years respectively), but this differs by sector (Figure 5.5). Taking years of education into account alongside the sectors in which foreign-born workers are employed, results in a lower contribution of foreign-born workers to GDP (1.3%).

Figure 5.4. **The contribution of migrant workers to GDP is lower than could be expected by their number**

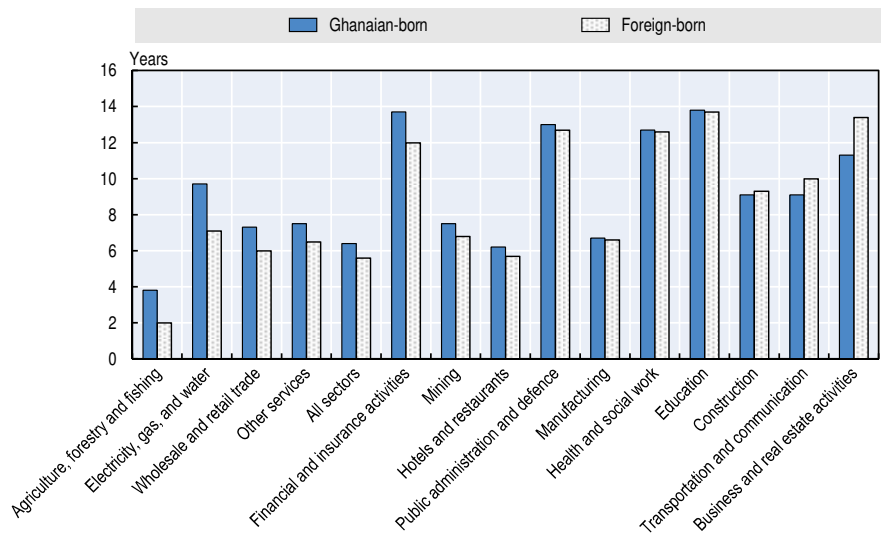
Foreign-born employed (% of all employment) and foreign-born value added (% of GDP), 2010



Source: Authors' own work based on Minnesota Population Center (2015), Integrated Public Use Microdata Series, *http://doi.org/10.18128/D020.V6.5*

Figure 5.5. **Ghanaian-born workers are better educated than immigrant workers, but not in all sectors**

Years of education of the foreign-born and Ghanaian-born employed by sector, 2010



Note: Other services includes private household services. Figure is ordered based on a descending Ghanaian-to-foreign-born education ratio.

Source: Authors' own work based on Minnesota Population Center (2015), Integrated Public Use Microdata Series, *http://doi.org/10.18128/D020.V6.5*.

Impact of immigrants on mining and trade

A qualitative study has been conducted in two economic sectors in Ghana, namely mining and trade. The main purpose of the study is to analyse the economic contribution of migrant workers in these sectors and to explore why this contribution might be different from the contribution of native-born workers and how the two groups interact. Factors that concern the economic contribution include, for example, the motives which encourage immigrants to work in these sectors; the knowledge and skills they bring; the innovation generated directly or indirectly by them; and possible negative economic or related effects (e.g. pressure on native-born employment, infrastructure, price levels or the environment).

It may be recalled from Chapter 4 that the presence of immigrant workers was found to have a negative effect on employment of native-born workers at the national level, while no significant effect was found on paid employment (see Table 4.6). However, these national results do not necessarily hold for each economic sector, since even within the same sector employment creation and displacement effects may occur simultaneously. The study discussed in this chapter illustrates such effects, and in this way complements the analysis in other chapters.

Scope and methodology

Mining and trade were selected in view of the high employment share of foreign-born in comparison with native-born workers and the economic weight of these sectors. Wholesale and retail trade is a very important sector in terms of employment, and almost one in five workers are employed in this sector. The share of employment in mining is far lower (just above 1%), but at the same time this sector accounts for almost 9% of GDP (compared with 7% for trade, Ghana Statistical Service, 2015). Apart from gold, several others minerals are mined and exported from Ghana such as diamonds, manganese and bauxite. In both mining and in trade, the foreign-born population is overrepresented in comparison with the Ghanaian-born population (see Figure 5.2).

For each sector, the studies' findings were based on (i) interviews with key stakeholders; (ii) interviews with enterprises; and (iii) focus group discussions (FGDs) among both native-born and immigrant workers. The project team organised a training workshop to conduct pilot fieldwork in collaboration with the Centre for Migration Studies in Accra, which undertook the study.[4] Overall, the team conducted 79 interviews (Table 5.1).[5]

Key stakeholders include the main institutions involved in the migration process, such as the Ministry of Employment and Labour Relations, Ministry of Interior, Ghana Immigration Service, Ghana Investment Promotion Centre, Ghana Statistical Service, and other government departments. Other interested

parties include the Ghana Employers Association, the Ghana Trade Union Congress, and academic and research institutions. In the context of the study, enterprises, and in particular large enterprises, are considered to be representative of the formal economy; the enterprises were selected in consultation with relevant (sector) organisations. Focus groups were included in particular to assess the effects of immigration for self-employed workers and employees (including those in the informal economy). Geographical coverage was also determined in consultation with relevant organisations.

Table 5.1. **Interviews conducted for the sector studies**

	Trade sector	Mining sector	Both sectors combined**	All
Key informants	6	19	12	37
Representatives of enterprises	19	4*		23
FGD	3	9	7	19
All	28	32	19	79

Note:
* Three were self-administered by the enterprises.
** Interviewee who discussed issues on both trade and mining sectors.
Source: Badasu et al. (2017).

Each FGD consisted of five to eight participants, which allowed for an effective discussion and consensus building among the members in the groups. The composition of the groups was guided by the need to balance socio-demographic and other characteristics of the study population such as age and sex. The interviews were conducted in English and local languages (Akan, Mole-Dagbani, Ga and Ewe).

In consultation with the Ghana Investment Promotion Centre and the Ghana Mineral Commissions (Ministry of Lands and Mineral Resources), five regions of Ghana were selected for the study: Greater-Accra, Eastern, Western, Ashanti and Brong-Ahafo. In these regions, the study was conducted in selected mining communities and in urban areas where wholesale and retail trading activities take place and immigrants participate in these activities.

Economic opportunities and stability are important drivers of immigration in Ghana

Migration flows are influenced by many factors, and push and pull factors may reinforce each other in various ways (Baum, 2012). In addition, faced with the same factors, the decision to migrate depends on several socio-demographic variables including age, gender, level of education and so on. Economic opportunities, the stable political environment and the availability of infrastructure and basic amenities were frequently mentioned as reasons for immigrating in the interviews (including FGDs), and seem important for all

major groups of immigrants in Ghana. Some of these factors are captured by the statement below:

> *Well, there are a number of factors that attract foreigners to come and work here. They see Ghana as a place within the West African region that is relatively stable and peaceful. Though, when you compare the economic conditions, other places are relatively better, but of course, an investor is looking at the future. So he is looking at the environment which is very stable. So the environment is one factor considered before coming to invest in Ghana. Then they also look at the labour conditions. It may not be a strong point because across the West Africa region, labour is not so expensive. But, it also depends on how central they want the business to be. And when it comes to exports and other issues, they look at facilities, infrastructure, and compare to other countries, and then they decide to invest here in Ghana (Assistant Controller, Government agency 1).*

The same factors that encourage immigration in general can also encourage investment by foreign-born individuals, which may be coupled with immigration. Investors may place a particular emphasis on stability and a positive economic outlook, as well as on a central location. Some interviewed Nigerian traders also expressed views that in addition to lower levels of insecurity and a more stable currency, being active in Ghana allowed to achieve higher profit margins.

The enabling role of networks and access to information in the migration process is widely acknowledged (Anjos and Campos, 2010; Flahaux and De Haas, 2016). This role was confirmed in the interviews, which highlighted that social and economic networks are intertwined with the activities of traders. A Nigerian trader for example described that during a visit to a relative in Ghana, he noticed the large number of Nigerians who operated a business there. Following an encouraging discussion with his relative, he decided to return to the country to open his business, first living with his relatives and then finding his own place.

Migration of Chinese migrants to African countries has been explained with reference to networks and trajectories which, once established, continue to generate migration (Mohan and Kale, 2007). Such trajectories may start with the migration of a single family member, who is then followed by other members of the family (dependants or workers) as desired or needed. The study pointed at the contribution of networks to immigration of Chinese traders and miners in Ghana. The need for trusted persons is often cited as the reason for employing countrymen or family members, while established networks may lower transaction costs for businesses.

Networks of migrants may be encouraged or reinforced by international treaties or bilateral relations between countries. For example, since 2000 Ghana attended several of the meetings in the context of the Forum on China-Africa Cooperation (FOCAC), and subsequently signed agreements with China in the areas of agriculture, trade and infrastructure. Accordingly, Chinese companies have been among the top ten source countries of investment in Ghana for many years, and some of the immigration from China is linked to these agreements.[6]

Immigrant workers' contribution to large enterprises is often considered positively

The need to fill skills gaps is an important driver of immigration particularly in large scale enterprises with the means to recruit internationally. Companies in both the mining and trade sector recruit limited numbers of specialists or experts from abroad. They are used to fill technical skills gaps (e.g. engineering) and economical skills gaps (accounting, marketing skills). In a mining company the recruitment of foreigners was explained as follows:

> *We know many Ghanaians are looking for job so it is our policy to employ more people from Ghana. But there are certain times that we don't get any Ghanaian with the skills required so we have to go to other countries. Recently we had to employ a mine planner from Australia because we cannot get any qualified person in Ghana (Safety Manager, Mining company 1, Western Region).*

> *We only hire expats when we do not find the requisite skill here in Ghana. The company prioritizes hiring Ghanaians who are best qualified…yes we would want to employ the best- be it expats or local persons but loyalty is crucial for this company. We do not want to spend resources to train persons only for them to join rival companies or move elsewhere (Administrator, Unique mill).*

When seeking to obtain work permits, employers may have to overcome bureaucratic hurdles, but in Ghana the process appeared not too problematic. The study shows that different modes of recruitment are adopted to identify foreign labour. These modes include recommendation through personal networks, online advertisement and recruitment agencies in Ghana and elsewhere. The preferred mode of recruitment of migrant workers was by recommendation, especially in the trade sector.

The role of immigrant workers in filling skills gaps contributes to the positive perception of these workers in large scale enterprises. Potential frictions with native-born workers may be limited by arrangements for skills transfers between immigrant and native-born workers, which seem to be common in Ghana.

> *"When it comes to expatriates, what we need to know is for each expatriate we hire, there is a Ghanaian counterpart who is understudying the expatriate. The overall mission is for the Ghanaian counterpart to understudy the person and learn the skills that the person brings. Which means in the long run we will have new skill set .We will have Ghanaians performing some of these roles (Administrator, Unique mill).*

Mixed perceptions of the role of immigrant workers in small economic activity and self-employment

Perceptions of immigrant workers outside large scale enterprises seem more mixed. The contribution of immigrant workers may be looked upon positively in terms of skills and even job creation, but competition in product

and labour markets is also considered to be intense. In addition, some problems such as environmental issues are attributed to the activities of foreigners.

Many of the business entities that employ immigrants in the trade sector are owned by migrants, mainly from China, India, Lebanon and Nigeria. Each of these migrant groups are associated with particular products as well as areas of knowledge. Chinese traders are particularly active in consumables, Lebanese in electronics and household ware, Indians in electronics and fabrics and Nigerians in auto parts and household items. However, both FGDs and key informants observed that small foreign-owned companies in the trade sector also recruited and employed native-born workers. This may happen because immigrants lack language skills or local knowledge or simply because native-born workers are easily available.

Nevertheless, there are perceptions that entrepreneurs displace some native-born workers in the trade sectors. One explanation that was forwarded is that importing consumer goods is cheaper for Chinese immigrants in particular. In general, immigrants from industrial countries have more connections with manufacturers in their countries of origin, and consequently it is easier for them to import consumer goods.

Partly with a view to the perception of 'unfair competition', the Ghana Investment Promotion Centre (GIPC) Act of 1994 (Act 478), and revision in 2013 (Act 865), reserve certain types of activities and enterprises for Ghanaian citizens, including sales of goods in markets or open stalls. However, interviews suggested that foreign-born entrepreneurs circumvent this legislation by using Ghanaian connections. This "fronting" practice entails joint ownership of businesses, and may create benefits for immigrants and Ghanaians alike (Adjavon, 2013). Apart from legal constraints, some foreign-born entrepreneurs also cite discrimination as a reason to use Ghanaian connections.

Fronting was mentioned in the FGDs and the interviews with key informants as a major issue associated with the effect of immigrants' economic activity on Ghanaians' self-employment and informal sector enterprises. Interviewees noted that generally, the Ghanaian fronters exploit the foreigners, while the foreigners evade tax and sell their wares at lower prices, which is unfavourable to the Ghanaian traders. While government tax revenue is lost in the process, the perceived opportunities for Ghanaians include the prospect of obtaining employment when the business is formalised. The largest union in the trade sector - Ghana Union of Traders Association (GUTA) - often draws government's attention to retail activities by immigrants.

There are other forms of reciprocity in the relationship between immigrants and small scale and informal sector entrepreneurs in Ghana. The support from Nigerians for establishment of businesses seems quite common, with Ghanaians benefiting from Nigerian skills and capital, and Nigerians gaining a stake in the business.

Transfer of skills can either occur informally or be explicitly planned. The latter situation is probably more common in large scale enterprises, for example, as noted earlier, in mining in Ghana. Informally, foreign- and native-born workers can learn from each other while they are working side-by-side.

Mining in rural areas in Ghana

Mining activities undertaken by both large scale formal enterprises and small scale entrepreneurs affect rural communities in Ghana. Mostly Ghanaian entrepreneurs initiate ancillary businesses in order to provide services to mining companies that are predominantly either foreign-owned or jointly owned by Ghanaians and foreigners. As noted by an official, a new mine can lead to new business:

> *When they [immigrants] work, they generate income and when they spend here, it is more like a virtuous cycle. People too get jobs. When they hear of a new mining company coming, quickly, you will see a barbering shop opening at the place, a salon will open, a food vending or restaurant will open, grocery shop etc. all these spillover effects happen locally… the hotel and catering services are flourishing because the expatriates patronize these services which enhance the tourism and hospitality industry (Human Resource officer, Government Agency 3).*

Apart from hospitality and personal services, increasing production resulting from the presence of the immigrants in the small-scale sector has encouraged the production of washing plants for gold, and created opportunities for technical jobs such as welding. On the other hand, some Ghanaians believe that immigrants working as intermediaries between local small-scale miners and large-scale buyers of gold for export are displacing the native-born.

By creating small scale mining firms in rural Ghana and employing local people to work with, interviewees considered Chinese entrepreneurs to enhance rural incomes and promote rural development. The operations of Chinese miners have also given local people the opportunity to benefit from extraction of natural resources, contrary to large mining firms who tend to pay royalties to governments as well as higher level traditional rulers who do not reside in communities where these resources are extracted from.

However, the involvement of immigrant entrepreneurs and workers in small scale mining is also associated with less positive effects. A study by Amonoo (2014) indicates that, similar to the trade sector, "fronting" is also an issue in small-scale mining (according to Ghanaian legislation, foreigners are also not allowed in small-scale mining). Furthermore, even though small scale mining has been undertaken in Ghana since pre-colonial times, Chinese entrepreneurs use sophisticated machines such as power plants, washing plants, excavators and wash pipes while Ghanaians tend to use hand tools. Partnerships of Ghanaians with the Chinese are mostly driven by the fact that the Chinese have access to this machinery. However, informal small-scale mining

activities by the Chinese, other migrants and Ghanaians alike, usually take place along water bodies and waste materials are washed back into the water sources. The pollution generated by small scale mining machinery is much greater than that generated by traditional Ghanaian methods.

Conclusions

The contribution of immigrant workers to GDP is estimated at around 1.5%, which is just below the share of foreign-born workers in employment (1.6%). This is due to the strong presence of foreign-born workers in relatively less productive sectors such as trade and domestic services. As in most ECLM partner countries, the difference between the two numbers is small (OECD/ILO, 2018). Furthermore, given the high employment rate of foreign-born workers, it seems unlikely that foreign-born workers have a negative effect on GDP per capita. Nevertheless, the economic contribution of foreign-born workers would benefit from less concentration of these workers in trade and domestic services, and a stronger presence in, for example, manufacturing.

The qualitative studies presented in this chapter illustrate that a combination of pull and push factors interact to drive immigrants from major source countries such as China, India, Lebanon and Nigeria into the trade and mining sectors of Ghana. The studies also demonstrate the enabling role of networks in migration processes. Various ways in which immigrants contribute positively to the Ghanaian economy have been highlighted, including through job creation, revenue generation and transfer of skills. However, the presence of migrants in the trade and mining sector has also raised issues, in particular with regard to violations of investment and environmental legislation. In general, perceptions about the role of immigrant workers in large scale enterprises seem more positive than those about immigrant workers in small-scale activities and self-employment.

Notes

1. For an overview, see for example Bodvarsson and Van den Berg (2013).
2. GDP per capita can be decomposed as follows:

$$\frac{GDP}{POP} = \frac{GDP}{EMP} * \frac{EMP}{POP} = \frac{GDP}{EMP} * \frac{EMP}{WAPOP} * \frac{WAPOP}{POP},$$

where POP represents the population, WAPOP is the population of working age and EMP is employment.

3. This follows the example of a standard Cobb-Douglas production function (Aleksynska and Tritah, 2015; Jaumotte, Koloskova and Saxena, 2016):

   $\frac{GDP_{dt}}{EMP_{dt}} = \propto lnHC_{dt} + (1-\propto) ln\frac{K_{dt}}{EMP_{dt}} + lnA_{dt}$, where HC_{dt} is human capital per worker, $\frac{K_{dt}}{EMP_{dt}}$ is the capital-to-labour ratio, A_{dt} is total factor productivity and $\propto$ is the labour share.

4. A training workshop was organised from 7-9 May, 2016 at the Centre for Migration Studies, University of Ghana, to finalise the research instruments. Apart from three members of the ECLM project team, the workshop was attended by four staff members of the Centre as well as the field workers. The workshop discussed the instruments for the interviews, which were also tested in the field (see Badasu et. al., 2017).

5. The targeted number of interviews (30 stakeholder interviews, 50 interviews with representatives of enterprises, and 20 FGD) was not feasible due to various constraints. In particular, it was not possible to secure interviews with representatives of many enterprises in the mining sector. This was partially compensated by interviews with key informants, but still resulted in a shortfall in comparison with the planned number of interviews.

6. See the quarterly reports from the Ghana Investment Promotion Centre, available at: *http://www.gipcghana.com/press-and-media/downloads/reports.html*.

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ANNEX 5.A1

Additional information

Table 5.A1.1. **Employment by sector, by sex**

Year	Nativity status	Sex	A + B (%)	C (%)	D (%)	E (%)	F (%)	G (%)	H (%)	I (%)	J (%)	K (%)	L (%)	M (%)	N (%)	O (%)	P (%)	All (%)
2000	All	MF	53.2	1.4	10.7	0.3	3.0	15.1	2.3	3.1	0.5	1.0	1.4	3.4	0.9	2.9	0.9	100.0
2000	Ghanaian	MF	53.2	1.3	10.6	0.4	3.0	15.1	2.3	3.1	0.5	1.0	1.4	3.4	0.9	2.9	0.9	100.0
2000	Foreign	MF	44.3	2.7	13.1	0.2	3.2	17.2	2.9	3.0	0.7	1.3	1.7	3.6	1.0	4.0	1.1	100.0
2000	All	M	54.3	1.8	10.2	0.5	5.0	10.2	0.9	5.2	0.7	1.4	2.2	3.9	0.9	2.3	0.7	100.0
2000	Ghanaian	M	54.4	1.8	10.2	0.5	5.0	10.1	0.9	5.3	0.7	1.4	2.2	3.9	0.9	2.3	0.7	100.0
2000	Foreign	M	45.4	3.2	12.0	0.3	5.1	13.1	1.4	4.7	0.9	1.8	2.4	4.4	1.0	3.6	0.8	100.0
2000	All	F	52.0	0.9	11.1	0.2	1.0	20.1	3.7	0.9	0.4	0.6	0.7	3.0	0.9	3.5	1.0	100.0
2000	Ghanaian	F	52.1	0.9	11.1	0.2	1.0	20.1	3.7	0.9	0.4	0.6	0.7	3.0	0.9	3.5	1.0	100.0
2000	Foreign	F	43.2	2.1	14.2	0.1	1.2	21.6	4.6	1.1	0.5	0.8	0.9	2.8	1.0	4.4	1.4	100.0
2010	All	MF	42.0	1.1	10.7	0.4	3.0	18.8	5.4	3.9	0.7	1.0	1.5	3.9	1.2	5.7	0.8	100.0
2010	Ghanaian	MF	42.1	1.1	10.7	0.4	3.0	18.7	5.4	3.9	0.7	1.0	1.5	3.9	1.2	5.7	0.7	100.0
2010	Foreign	MF	34.4	1.4	10.2	0.4	3.0	26.1	4.8	3.4	0.9	1.3	0.5	2.8	1.4	8.1	1.2	100.0
2010	All	M	46.0	1.8	8.8	0.5	6.0	12.2	1.2	7.4	0.9	1.2	2.2	4.5	1.1	5.4	0.7	100.0
2010	Ghanaian	M	46.2	1.8	8.8	0.5	6.1	11.9	1.2	7.5	0.9	1.2	2.2	4.5	1.1	5.3	0.7	100.0
2010	Foreign	M	34.1	2.0	8.4	0.5	4.9	27.8	1.7	5.0	1.0	1.4	0.6	2.6	1.2	7.9	1.0	100.0
2010	All	F	38.2	0.4	12.5	0.3	0.2	25.0	9.3	0.5	0.5	0.7	0.8	3.4	1.3	6.1	0.8	100.0
2010	Ghanaian	F	38.3	0.4	12.5	0.3	0.2	25.0	9.3	0.5	0.5	0.7	0.8	3.4	1.3	6.0	0.8	100.0
2010	Foreign	F	35.0	0.5	13.1	0.3	0.2	23.3	9.7	0.8	0.8	1.1	0.4	3.1	1.7	8.5	1.5	100.0

Note:
A + B Agriculture, forestry and fishing
C Mining
D Manufacturing
E Electricity, gas, and water
F Construction
G Wholesale and retail trade
H Hotels and restaurants
I Transportation and communications
J Financial services and insurance
K Real estate and business services
L Public administration and defense
M Education
N Health and social work
O Other services
P Private household services

Source: Authors' own work based on Minnesota Population Center (2015), Integrated Public Use Microdata Series, *http://doi.org/10.18128/D020.V6.5*

Chapter 6

Immigrants' contribution to public finance in Ghana

This chapter analyses the impacts of immigration on public finances in Ghana for two years: 2006 and 2013. The chapter first presents the structure of the government budget, followed by the estimation of the share of taxes and revenues attributable to foreign- and native-born individuals. To conclude, it presents estimates of the net fiscal impact of immigration of the average immigrant and native-born person.

Increased international importance of migration has brought specific attention to questions concerning the fiscal contribution of immigrants. While foreign-born populations in many countries pay taxes and receive benefits, immigrants may not be eligible or have access to public services or benefits due to their legal status, their employment situation, or even due to discrimination. Perceptions often exist that immigrants generate higher public expenditures than they pay in taxes, but empirical evidence on the impact of migration on fiscal balances is not available outside high-income countries.

This chapter seeks to provide evidence of the net fiscal contributions of foreign-born individuals in Ghana in 2006 and 2013 by comparing them to those of native-born individuals. The basic methodology follows Dustmann and Frattini (2014), and the calculations are based on the Ghana Living Standard Surveys and other statistical information together with government budget data. Accordingly, individuals are assigned their respective estimated share of costs and contribution for each component of government expenditures and revenues, respectively. Given this information, it is possible to estimate both the overall expenditure on the respective foreign-born populations as well as the overall revenues they have produced for the two individual years in comparison to their native-born counterparts. It needs to be noted that this methodology of estimating the net fiscal contribution of native- and foreign-born individuals relies on strong assumptions, and therefore caution is required when interpreting the results.

The chapter commences with a brief overview of the components of the fiscal revenues and expenditures of Ghana. Following this, the immigrant shares of taxes paid and benefits received are estimated, on which the final estimate of net fiscal contributions is based. It is found that the fiscal impact of the foreign-born population in Ghana is more positive than that of their native-born counterparts across both "marginal" and "average" estimation methods (see below for an explanation of both methods). Although the per-capita revenue collected from native-born individuals surpasses that of foreign-born individuals in both 2006 and 2013, foreign-born individuals generate much lower costs for the Ghanaian government.

Fiscal revenue and expenditures in Ghana

In 2006, Ghana faced a primary budget deficit of 4.1% of GDP, which was a reversal of the surplus that existed in 2005. Over the following eight years, Ghana saw fluctuations in its growth rates, yet sustained a primary budget deficit throughout the period. In 2013, a 7.3% real growth rate was recorded, together with a primary budget deficit of 10.8% (AfDB, OECD & UNDP, 2015). Thus, overall, a deterioration of the total fiscal budget is witnessed from 2006 to 2013.

Over the period from 2006 to 2013 a steady increase in both expenditure and domestic revenue as a percentage of GDP can be observed, although expenditure grew faster. Taxes have continued to be the main source of government revenue, and tax revenues accounted for 74.6% of total government revenue in 2013 (Bank of Ghana, 2014). Direct taxes include taxes on the income and property of individuals and businesses, while indirect taxes are those levied on goods and services consumed within the country (value-added tax, international trade taxes, and petroleum and excise duties). Taken together, government tax revenue as a share of total revenue rose by 1.8 percentage points from 2006 to 2013 (Bank of Ghana, 2007 and 2014).

Total government expenditure witnessed an increase from 2006 largely due to the goal of expanding economic growth through various initiatives including the absorption of basic school fees,[1] the implementation of the National Health Insurance Scheme (NHIS) and the Livelihood Empowerment Against Poverty (LEAP) as well as infrastructural advancements (Adu et al., 2014). Recurrent expenditure is the largest component of total government expenditures, especially those made on non-interest items including personal emoluments, social contributions, use of goods and services as well as government subsidies. In 2013, non-interest expenditure amounted to around 46.0% of total government expenditure, followed by domestically-financed capital expenditure (27.1%). The latter saw a large increase from its level in 2006 partly due to the discovery of oil as well as infrastructural improvements.

As expenditure exceeds revenue for both years, the per-capita net fiscal contribution across the entire (both foreign- and native-born) population is negative. This does not necessarily apply to immigrants as their share in the total population is relatively small and as their tax payment and benefit usage patterns may vary from the native-born population.

Table 6.1. **Government expenditure has outpaced revenue**

Total government revenue and expenditures, 2006 and 2013 (GHC million)

A. Revenue		
	2006	2013
Total Government Revenue	**3 191.8**	**19 169.7**
Total Tax Revenue	**2 326.3**	**14 307.7**
Direct Taxes*	**718.3**	**6 301.7**
Personal income tax (%)	14.9	17.8
Corporate income tax (%)	13.0	19.1
Other income tax (%)	3.0	7.1
Indirect Taxes*	**1 066.2**	**4 833.0**
Value-added tax (%)	25.3	23.2
Other taxes (%)	20.6	10.6
International Trade Taxes*	**541.8**	**3 173.0**
Import duties (%)	17.9	15.6
Export duties (%)	5.4	6.6
All (%)	**100.0**	**100.0**
Total Non-Tax Revenue	**92.3**	**4 265.4**
Other Revenue Measures	**138.3**	**159.1**
Grants	**634.9**	**437.6**
B. Expenditure		
	2006	2013
Total Government Expenditure	**3 873.5**	**26 277.2**
Recurrent expenditure **	**2 473.5**	**16 494.6**
Non-interest expenditure (%)	53.7	46.0
Interest expenditure (%)	10.2	16.7
Capital expenditure **	**1 096.2**	**9 782.6**
Domestic financed (%)	14.7	27.1
Foreign financed (%)	13.6	10.1
HIPC financed expenditure **	**179.2**	**0.0**
(%)	4.6	0.0
MDRI financed expenditure **	**124.6**	**0.0**
(%)	3.2	0.0
All (%)	**100.0**	**100.0**

Note: Personal income tax includes self-employed tax. Export duties include import exemptions. Non-interest expenditure includes: personnel emoluments, goods and services, as well as transfers (pensions, social security, National health fund, etc). Interest payments include: domestic and external interest payments. Domestic-financed capital includes: development (educational trust fund, road fund, petroleum related fund, district assembly common fund, and other cash expenditure) and net-lending.

* Components are provided as a percentage of total tax revenue.

** Components are provided as a percentage of total government expenditure.

Source: Bank of Ghana (2007 and 2014).

Revenue estimates of natives and immigrants

Ghana's total population increased from 22.6 million in 2006 to 26.7 million in 2013, of which the large majority were Ghanaian-born individuals (22.1 and 26.3 million, respectively) according to the Ghana Living Standard Survey (GLSS). While around 290 thousand foreign-born workers (1.3%) were present in Ghana in 2006, this number declined to 262 thousand in 2013 (1.0%).[2] Survey information on income was used to estimate incomes tax payments for each native- and foreign-born individual.[3] It was assumed that self-employed individuals reported before-tax income, while this was only provided by a portion of wage and salaried workers. The remaining share reported after-tax income and therefore the before-tax income had to be calculated using the corresponding tax rates and thresholds (see Annex 6.A1, Tables 6.A1.1 and 6.A1.2). Accordingly, the corresponding per capita income tax payment for wage and salaried employees as well as for the self-employed was calculated. Based on this exercise, the estimated total income tax in 2013 is GHC 4.87 billion, which is considerably higher than the tax revenue on income reported in the Central Government Budget by the Government of Ghana (GHC 2.55 billion). This may in part be due to the assumption that all individuals that receive income pay taxes.

Immigrants pay relatively more income tax

It is estimated that the Ghanaian-born make up 99.0% of the taxable population, yet account for only 98.8% of total income tax (Table 6.2). All groups of foreign-born persons pay relatively more than their corresponding population share except those originating from non-ECOWAS African countries. Individuals born outside of Africa pay the highest income tax per capita (GHC 240.1), while those originating from other non-ECOWAS African countries pay the lowest amount (GHC 55.3), even lower than the per capita income tax paid by Ghanaian-born individuals. These conclusions do not differ from the relative contributions in 2006, in which native-born workers constituted 98.7% of the population yet contributed to 99.5% of total income tax (Annex A6.1, Table 6.A1.3). Similarly, the largest per capita tax contributions of the foreign-born population were made by individuals originating outside of Africa in 2006; while they constituted 0.1% of the population, they contributed to 0.2% of the total income tax collected.

The 2013 per capita income tax paid by native- and foreign-born wage and salaried workers was estimated to be GHC 103.2 and GHC 133.8, respectively. For the self-employed, these figures amounted to GHC 8.0 for native-born workers and GHC 6.6 for the foreign-born. In total, the gap between the average income tax per capita paid by a native- and foreign-born worker amounted to GHC 29.2 (GHC 111.2 and 140.4, respectively).

Table 6.2. **Foreign-born individuals pay more in per capita income tax than native-born individuals**

Estimates of income tax for natives and immigrants, 2013

Place of birth	Amount (GHC)	Income tax share (%)	Population share (%)	Per capita amount (GHC)
Native-born	2 520 000 000	98.8	99.0	111.2
Foreign-born	31 412 638	1.2	1.0	140.4
Other ECOWAS	23 800 000	0.9	0.7	144.6
Non-ECOWAS African countries	1 983 995	0.1	0.2	55.3
Non-African countries	5 628 643	0.2	0.1	240.1
Total Estimates	**2 551 412 638**	**100**	**100**	**111.6**

Note: Income tax includes both taxes paid by employees and by the self-employed.

Source: Authors' own work based on Ghana Statistical Service (2016), Ghana Living Standard Survey 6 microdata *http://www.statsghana.gov.gh/nada/index.php/home*

Native- and foreign-born individuals contribute roughly the same amount per capita to social security

In Ghana, every employer is obligated to pay 18.5% of the base salary of every employee (13% from the employer and 5.5% from the employee) to the Social Security and National Insurance Trust (SSNIT). Of these 18.5%, 13.5% go to SSNIT (of which 2.5% are remitted to the National Health Insurance Authority), while the remaining 5% are allocated towards the mandatory Second Tier Occupational Scheme. In addition to this scheme, individuals can contribute an additional amount (max. 16.5% of the basic salary) towards a third, voluntary scheme (Tier 3). The total contribution of an employees' base salary (max. 35%) is tax deductible. In the case of foreign-born workers, employers are instructed to pay the total contribution of 18.5% based on the principle that once all contributions are made, foreign-born workers can more easily access the fund upon return to their country of origin (KPMG, 2017).

As such detailed information is not present in the Ghana Living Standard Survey, per capita social security contributions were estimated based on whether or not a worker is entitled to receive pension/retirement or social security benefits from his or her current occupation. According to the 2013 GLSS, 4.4% of foreign-born workers and 4.5% of native-born workers received social security contributions. When further disaggregating foreign-born workers, 3.5% of the workers from other ECOWAS countries receive social security benefits, while only 1.5% of non-ECOWAS African and 17.0% of other non-African country nationals receive them.

Accordingly, the social security contributions reported by the Government of Ghana for 2013 (GHC 159.1 million) are allocated to foreign- and native-born workers based on their shares in the total pool of eligible recipients. Foreign- and native-born workers pay a per capita contribution of GHC 6.8 and 7.0, respectively (Table 6.4). Workers from non-African countries pay the highest

per-capita contribution, at GHC 26.4, while those originating from other non-ECOWAS African countries pay the lowest (GHC 2.3) (see Table 6.5).

Concerning the remaining taxes on income and property, two different methodologies are used to estimate per capita contributions. While corporate taxes per native- and foreign-born individual are estimated based on their respective share of formally registered companies, payments made on non-tax revenue as well as oil and its royalties (classified as other taxes) are allocated exclusively to the native-born population. As a result, native-born individuals pay a total of GHC 316 per person: GHC 101.2 on corporate taxes and GHC 215 on non-tax revenue, oil and its royalties. This is more than double the total amount that a foreign-born individual pays (GHC 124) of which GHC 118 are corporate taxes, while the remaining GHC 6 are payments made on other taxes (Table 6.4).

Per capita, the foreign-born population contributes more to VAT than the native-born population

The provision of goods and services in Ghana are subjected to value-added tax (17.5%), which includes 2.5% attributed to the National Health Insurance Levy (NHIL) that is in place to finance the National Health Insurance Scheme. In the estimation procedure, the per capita VAT contribution includes excise taxes, NHIL as well as the communication service tax. Based on reported household consumption in the Ghana Living Standard Surveys, the respective average consumption per household member was computed. This amounted to a per capita consumption of GHC 2 676 on average in 2013 for a native-born individual, while a foreign-born individual consumed an average of GHC 3 674. Subsequently, the per capita VAT contribution was calculated based on each individuals' share of the overall consumption of all households. This resulted in an average VAT contribution of GHC 211 and 289 for native- and foreign-born individuals, respectively (Table 6.4). In comparison to the Ghanaian per capita contribution, all three foreign-born subpopulations illustrated in Table 6.5 contributed a larger amount with the highest contribution made by individuals from non-African countries (GHC 634).

Native-born individuals contributed most to total VAT receipts (above 98%) in Ghana for both the year 2006 and 2013 (Table 6.3). For the foreign-born population, a distinction was made between pure and mixed households. While the former was defined as any household in which both the head and spouse were born abroad, the latter was characterised by one being born abroad, while the other was Ghanaian by birth. The results indicate that the largest 2006 VAT contributions amongst the foreign-born subpopulations were made by individuals from other ECOWAS countries (1.2%), followed by those originating in non-African countries (0.48%) and those from non-ECOWAS African countries (0.16%). Over the eight-year period, these proportions declined for all foreign-born groups except those originating from non-ECOWAS African countries,

resulting in overall smaller differences in contributions among the foreign-born subpopulations (see Table 6.3).[4]

Table 6.3. **The foreign-born contribution to VAT slightly declined from 2006 to 2013**
Estimates of value-added tax for natives and immigrants, 2006 and 2013

Total VAT - ALL	Native Households (GHC)	Migrant Households (GHC)	Mixed Households (GHC)	All Households (GHC)	Contribution (%)
			2006		
All	*766 000 000*	*4 982 000*	*25 963 000*	*796 945 000*	*100.0*
Native-born	*766 000 000*		*16 200 000*	*782 200 000*	*98.15*
Foreign-born		*4 982 000*	*9 763 000*	*14 745 000*	*1.85*
Other ECOWAS		*3 720 000*	*5 940 000*	*9 660 000*	*1.21*
Non-ECOWAS African countries		575 000	723 000	1 298 000	*0.16*
Non-African countries		687 000	3 100 000	3 787 000	0.48
			2013		
All	*4 670 000,000*	*22 631 400*	*134 635 763*	*4 827 267 163*	*100.00*
Native-born	4 670 000,000		*92 700 000*	*4 762 700 000*	*98.66*
Foreign-born		*22 631 400*	*42 135 763*	*64 767 163*	*1.34*
Other ECOWAS		*10 900 000*	*28 100 000*	*39 000 000*	*0.81*
Non-ECOWAS African countries		6 506 666	*4 429 200*	*10 935 866*	*0.23*
Non-African countries		5 224 734	9 606 563	14 831 297	0.30

Note: Estimates are reported in Ghana New Cedi for the year 2006.
Source: Authors' own work based on Ghana Statistical Service (2016)

Taxes on international trade and other miscellaneous taxes

Over the past years, Ghana has adopted the Poverty Reduction Strategy in order to reduce the level of extreme poverty by half as stated in the Millennium Development Goals. International aid through the provision of grants (related to projects, programmes, HIPC and MDRI) as well as the liberalisation of trade were important for this achievement (Quartey et al., 2014). Yet, foreign aid may also be a burden on the government of Ghana as its overreliance on international financing has increased the country's level of debt (Niyonkuru, 2016).

As no detailed information was provided in the surveys, the per capita tax for international trade as well as for the grants received was established by using the population shares of native- and foreign-born individuals, respectively (Table 6.4). Taxes on international trade were solely applied to individuals aged 18 and above.

As shown in Table 6.1, revenue collected from international trade, especially through import duties, constitutes a large percentage of total tax revenue in both 2006 and 2013. Depending on the product, import duties can range between

0-20% of the tax base, which consists of cost, insurance and freight expenditures of the imported good (GRA, 2011). Consequently, 2013 per capita expenditure on the international trade tax amounted to GHC 126 and GHC 142 for native- and foreign-born individuals, respectively (Table 6.4).

Foreign-born individuals contribute marginally less than their native-born counterparts

Summary statistics on the estimated per capita revenue are provided in Table 6.4. Native-born individuals pay more in taxes than their foreign-born counterparts, which is largely due to the higher contribution of native-born individuals to other taxes including taxes on oil and mineral revenue as well as non-tax revenue. For example, in 2013, native- and foreign-born individuals paid GHC 215 and GHC 6 in other taxes, respectively. However, for the majority of the remaining tax categories in 2013, foreign-born individuals contributed marginally more per capita than native-born individuals.

The further disaggregation of foreign-born individuals by area of origin highlights the large differences that exist across these groups (Table 6.5). While individuals from non-ECOWAS African states pay the least taxes, immigrants originating outside of Africa pay two to three times as much as individuals originating from within Africa. This could be due to the higher average income that non-African individuals earn in Ghana when compared to native-born as well as other African individuals.

Table 6.4. **Native-born individuals contribute more to public finance**
Estimated revenue per capita, 2006 and 2013 (GHC)

	2006		2013	
	Native-born	Foreign-born	Native-born	Foreign-born
Income tax	19.5	7.9	111.2	140.3
Corporate tax	17.4	19.6	101.2	118.4
Taxes on domestic goods and services	44.2	63.6	210.6	289.2
Taxes on trade	30.6	34.9	126.3	142.3
Other taxes	25.9	3.5	214.8	5.9
Social security contributions	.	.	7.0	6.8
Grants	28.7	28.7	16.7	16.7
Total	**166.3**	**158.1**	**787.8**	**719.6**

Note: Taxes on income include personal and self-employed taxes. Taxes on domestic goods and services include VAT, excises, the National Health Insurance Levy and the communication service tax. Taxes on trade include international trade taxes, NFSL and airport tax. Other taxes include taxes on oil, non-tax revenue, as well as taxes on oil and mineral royalties. The 2006 estimates are represented in Ghana New Cedi.

Source: Authors' own work based on Ghana Statistical Service (2016), *Ghana Living Standard Survey 5 and 6 microdata http://www.statsghana.gov.gh/nada/index.php/home*

Table 6.5. **Of foreign-born individuals, those of non-African origin contribute, per head, the most to public revenue**

Disaggregated estimates of foreign-born revenue per capita, 2013 (GHC)

	2013			
	Foreign-born	Other ECOWAS	Non-ECOWAS	Non-African
Income tax	140.3	144.6	55.3	240.3
Corporate tax	118.4	75.5	0	601.6
Taxes on domestic goods and services	289.2	236.8	305.2	633.5
Taxes on trade	142.3	144.1	159.3	103.6
Other taxes	5.9	5.9	6.5	4.3
Social Security Contributions	6.8	5.0	2.3	26.4
Grants	16.7	16.7	16.7	16.7
Total	**719.6**	**628.6**	**545.3**	**1,626.4**

Note: Taxes on income include personal and self-employed taxes. Taxes on domestic goods and services include VAT, excises, the National Health Insurance Levy and the communication service tax. Taxes on trade include international trade taxes, NFSL and airport tax. Other taxes include taxes on oil, non-tax revenue, as well as taxes on oil and mineral royalties.

Source: Authors' own work based on Ghana Statistical Service (2016), *Ghana Living Standard Survey 5 and 6 microdata http://www.statsghana.gov.gh/nada/index.php/home*

Expenditure estimates of native-born citizens and immigrants

Public expenditure is estimated in a similar manner as public revenue. An important component of the government's fiscal balance is the expenditure on public goods, as this is an important investment for every country due to its potential of positively affecting quality of life, and therefore enhancing economic development (UNIDO, 2008). To analyse its fiscal impact, a distinction between pure and congestible public goods needs to be made. While pure public goods are non-rivalrous and non-excludable in consumption,[5] their identification may not always be apparent as certain pure public goods may be extended with population growth. An example of such would be public administration, as its service would need to be extended with the growth of the population. Nevertheless, even in such a scenario, the individual benefit to a consumer is constant and thus not dependent on the total number of consumers.

Additional limitations arise from the fact that certain public expenditures that would fall under pure public goods or congestible public goods expenditure cannot be identified. Some congestible public goods are estimated separately because their beneficiaries can be identified. Due to this arbitrariness, the classification of pure public goods includes government expenditures on subsidies and interest payments (domestic and external), while expenditure on grants, the use of goods and services as well as other expenditures are classified as congestible public goods. In view of these considerations, two calculations are applied to pure public goods. According to the first calculation, expenditures on public goods are equally allocated to native-born and foreign-born individuals ('average cost scenario'). For the second calculation, expenditures are solely allocated to native-born individuals

under the assumption that the total expenditures would be the same even if foreign-born individuals were not present ("marginal cost scenario"). The results of these scenarios are shown in Table 6.6 for the years 2006 and 2013.

Congestible goods and services, health and education expenditure

In contrast to pure public goods, congestible public goods are rivalrous in consumption. This means that their cost of provision by the government increases with population growth. Therefore, their costs are distributed among all Ghanaian residents, including both native- and foreign-born individuals, and are thus estimated according to their respective shares in the population. Examples of such goods include law enforcement, public parks and recreation areas, etc. Expenditure on congestible public goods covered by available data and in the analysis are grants, use of goods and services, and other governmental expenditure. Table 6.6 illustrates the per capita cost of congestible public goods for 2006 and 2013. In total, expenditures were estimated to amount to GHC 978 million in 2006 and GHC 5.4 billion in 2013; a real annual increase of 11.8%.[6]

When considering health and educational expenditures, per capita shares were based on each group's respective share of individuals that have access to free medical services, and those that are enrolled or have minor children who are enrolled in an educational program. Considerable differences emerge between 2006 and 2013 when analysing the source of medical payments for both foreign- and native-bon individuals. In 2006, only 0.25% of all foreign-born medical expenses and 2.89% of all native-born individuals were paid by the government. This rose to 35.3% and 41.8% in 2013, respectively. Of the individuals that were employed in 2006, 32.9% of native-born workers and 24.6% of foreign-born workers had access to free medical services on their job. Eight years later, this declined to 19.3% for the former, while the latter saw a rise of 1.9 percentage points. Given this, per capita health expenditure was approximated by the share of native- and foreign-born individuals whose medical expenses were financed by governmental institutions. This resulted in a per capita health expenditure of GHC 27.8 for the foreign-born and GHC 33.0 for their native counterparts in 2013.

When considering educational expenses, a distinction was made based on whether or not a child was living in a one- or two-parent household. If the child was raised by a single parent, expenditures on all enrolled children would be attributed to him or her; however, if it was a two-parent household, half of the expenditures on each enrolled child would be attributed to each parent. In 2006, 63.7% of all native-born individuals under the age of 18 were enrolled in public school, and 51.7% of the foreign-born. By 2013, the share slightly decreased for native-born public students, while increasing for the foreign-born (61.4% and 57.4%, respectively). Based on this information, per capita educational expenses on public schooling amounted to GHC 6.9 for the foreign-born and GHC 6.6 for a native-born student in 2013.

Overall, per capita expenditure on health and education, irrespective of immigrant status, increased from GHC 9.3 to GHC 39.6 over the eight-year period, of which the majority was allocated to health expenditures in 2013. At the aggregate level, the government of Ghana was estimated to have spent GHC 753 million on public health expenditure and GHC 151 million on public education in 2013; a real annual increase of 23.8% for the former and a real annual decrease of 5.6% for the latter from the estimated levels in 2006.

Compensation of employees

In Ghana, the compensation of employees includes wages and salaries paid to public servants as well as their social benefits received. The per capita expenditure on wages and salaries was approximated by the share of native- and foreign-born individuals employed in the public sector. This resulted in a 2013 per capita expenditure of GHC 357.4 and 133.9, respectively; a real annual increase of 12.4% and 17.4% over an eight-year period (Table 6.6). In addition to wages, government expenditure includes expenses on social benefits which consist of pensions and gratuities paid to public sector workers. While foreign-born individuals working in the public sector do receive a monetary compensation, none receive social benefits according to data analysis. This is in contrast to native-born public servants, who receive a per capita social benefit of GHC 84.8 in 2013.

Based on the average cost scenario in 2013, the per-capita expenditure on foreign-born individuals is estimated to be below that of native-born individuals by GHC 313.2 (Table 6.6). This is largely due to considerable differences in payment of wages and salaries as well as social security payments. While total per capita expenditure on foreign-born individuals increased from GHC 134.4 to GHC 785.1 from 2006 to 2013, it increased faster for native-born individuals, from GHC 198.6 to GHC 1 098.3. In the marginal cost scenario, the cost of pure public goods are solely allocated towards the native-born. This results in a per-capita expenditure of GHC 1 100.4 for native-born individuals and GHC 572.7 for the foreign-born in 2013. While there is very little difference in per-capita expenditure for native-born individuals across the two scenarios, expenditure on foreign-born individuals decreases considerably (GHC 212.4 in 2013); consequently increasing the expenditure gap that existed between the two population groups in 2006.

Additionally, the disaggregation of foreign-born individuals illustrates the differences that emerge when distinguishing by regions of origin. In both the average and marginal scenarios, individuals originating from non-African countries incurred the highest cost for the Ghanaian government, followed closely by those from Non-ECOWAS African countries. The lowest cost was found for individuals from other ECOWAS states (Table 6.7). The differences among the three regions of origin are largely due to differences in health expenditures as well as costs related to the wages and salaries of public servants.

Table 6.6. **Per capita expenditure on foreign-born individuals is lower when compared to the native-born under both cost scenarios**

Estimated Public Expenditure per capita, 2006 and 2013 (GHC)

	Average Cost Scenario				Marginal Cost Scenario			
	2006		2013		2006		2013	
	Native-born	Foreign-born	Native-born	Foreign-born	Native-born	Foreign-born	Native-born	Foreign-born
Pure public goods	35.2	35.2	212.4	212.4	35.7	0	214.5	0
Congestible public goods	54.6	54.6	237.9	237.9	54.6	54.6	237.9	237.9
Education	6.0	4.0	6.6	6.9	6.0	4.0	6.6	6.9
Health	3.4	0.3	33.0	27.8	3.4	0.3	33.0	27.8
Social security payments	13.1	0	84.8	0	13.1	0	84.8	0
Wages & salary payments	62.4	16.4	357.4	133.9	62.4	16.4	357.4	133.9
Capital expenditures	23.9	23.9	166.2	166.2	23.9	23.9	166.2	166.2
Total	**198.6**	**134.4**	**1 098.3**	**785.1**	**199.1**	**99.2**	**1 100.4**	**572.7**

Note: The 2006 estimates are represented in Ghana New Cedi.

Source: Authors' own work based on Ghana Statistical Service (2016), *Ghana Living Standard Survey 5 and 6 microdata http://www.statsghana.gov.gh/nada/index.php/home*

Table 6.7. **Among foreign-born individuals, public expenditure was lowest for individuals originating from other ECOWAS countries**

Disaggregated estimates of foreign-born public expenditure per capita, 2013 (GHC)

	Average Cost Scenario				Marginal Cost Scenario			
	2013				2013			
	Foreign-born	Other ECOWAS	Non-ECOWAS	Non-African	Foreign-born	Other ECOWAS	Non-ECOWAS	Non-African
Pure public goods	212.4	212.4	212.4	212.4	0	0	0	0
Congestible public goods	237.9	237.9	237.9	237.9	237.9	237.9	237.9	237.9
Education	6.9	7.4	6.1	4.6	6.9	7.4	6.1	4.6
Health	27.8	27.3	21.8	41.1	27.8	27.3	21.8	41.1
Social security payments	0	0	0	0	0	0	0	0
Wages & salary payments	133.9	112.0	199.6	187.2	133.9	112.0	199.6	187.2
Capital expenditures	166.2	166.2	166.2	166.2	166.2	166.2	166.2	166.2
Total	**785.1**	**763.2**	**844**	**849.4**	**572.7**	**550.8**	**631.6**	**637**

Source: Authors' own work based on Ghana Statistical Service (2016), *Ghana Living Standard Survey 5 and 6 microdata http://www.statsghana.gov.gh/nada/index.php/home*

Net fiscal impact of immigrants and natives

In order to estimate the net fiscal contribution of native- and foreign-born individuals, the total per capita expenditure needs to be subtracted from the total per capita revenue (Table 6.8). For the year 2006, the overall foreign-born per capita net contribution as a percentage of GDP is positive in both the average and marginal scenario at 2.8% and 7.0%, respectively. The contrary is the case for native-born individuals, whose contribution to the Ghanaian economy is negative (-3.8% for both scenarios).

Between 2006 and 2013, the net fiscal contribution as a percentage of GDP for both the native- and foreign-born individuals fell. Despite this overall decline, foreign-born individuals still have a higher net contribution than their native-born counterparts in both scenarios. Using the average cost scenario, the net fiscal contribution is negative for both native- and foreign-born individuals in 2013; yet, it is much lower for the latter (GHC -310.5 and -65.5, respectively). This changes when considering the marginal cost scenario as the net fiscal contribution of foreign-born individuals becomes positive (GHC 146.9), amounting to roughly 4% of per capita GDP in 2013, while that of native-born individuals remains at -8.8%. The latter is to be expected, given the 2013 budget deficit of 10.8% (GoG, 2014).

Nevertheless, comparing the magnitudes of the fiscal balance between native- and foreign-born individuals can be misleading as the size of the fiscal balance for each group depends on the size of the respective groups. In order to enhance the comparability of results across nationality categories, the ratio of revenue to expenditure is estimated for each respective nationality category (Dustmann and Frattini, 2014). A higher ratio indicates increased financial stability of the country, while a lower ratio (especially under 1) indicates a greater risk of falling into debt. To some extent, the ratio could provide a measure of government efficiency, indicating whether or not it has the ability to cover its commitments in the short-term.

While these ratios remain below one for both the average and marginal scenario of native-born individuals in 2006 and 2013, the contrary is established for the foreign-born (with the exception of the average cost scenario in 2013). This indicates that while native-born individuals on average received more than they contributed, the opposite holds for foreign-born individuals. More precisely, contributions made by native-born individuals cover roughly 70-80% of final expenditures made in their favour, while most foreign-born contributions more than cover their respective expenditures (118 - 159%).

Table 6.8. **The net fiscal contribution is higher for the foreign-born**
Estimated net fiscal contribution of foreign- and native-born individuals, 2006 and 2013

	A. Average Scenario			
	2006		2013	
	Native-born	Foreign-born	Native-born	Foreign-born
Per-capita public expenditures	198.6	134.4	1 098.3	785.1
Per-capita public revenues	166.3	158.1	787.8	719.6
Per-capita net fiscal contribution	-32.3	23.7	-310.5	-65.5
Per-capita GDP	845.9		3 545.7	
Per-capita net fiscal contribution % per capita GDP	-3.8	2.8	-8.8	-1.9
Revenue-to-expenditure ratio	0.84	1.18	0.72	0.92

Table 6.8. **The net fiscal contribution is higher for the foreign-born** *(cont.)*

	B. Marginal Scenario			
	2006		2013	
	Native-born	Foreign-born	Native-born	Foreign-born
Per-capita public expenditures	198.1	99.2	1,100.4	572.7
Per-capita public revenues	166.3	158.1	787.8	719.6
Per-capita net fiscal contribution	-31.8	58.9	-312.6	146.9
Per-capita GDP	845.9		3,545.7	
Per-capita net fiscal contribution % per capita GDP	-3.8	7.0	-8.8	4.1
Revenue-to-expenditure ratio	0.84	1.59	0.72	1.26

Note: 2006 values are provided in the Ghanaian New Cedi and not in the second Cedi.

Source: Authors' own work based on Ghana Statistical Service (2016), *Ghana Living Standard Survey 5 and 6 microdata http://www.statsghana.gov.gh/nada/index.php/home*

These differences are also present when disaggregating amongst foreign-born individuals. While those originating outside of Africa contribute approximately twice as much as they receive under the average cost scenario, the opposite holds for individuals from other ECOWAS and non-ECOWAS African countries as they receive 20-35% more than they contribute (Table 6.9). These conclusions slightly improve under the marginal cost scenario in which both individuals from other ECOWAS countries as well as from non-African countries contribute more than they receive; although the magnitude is much larger for the latter group of individuals.

Table 6.9. **Under the marginal cost scenario, the per-capita net fiscal contribution was positive for all groups of foreign-born individuals**

Detailed estimates on foreign-born net fiscal contribution per capita, 2013 (GHC)

	Average Cost Scenario				Marginal Cost Scenario			
	2013				2013			
	Foreign-born	Other ECOWAS	Non-ECOWAS	Non-African	Foreign-born	Other ECOWAS	Non-ECOWAS	Non-African
Per-capita public expenditures	785.1	763.1	843.9	849.3	572.7	550.7	631.5	636.9
Per-capita public revenues	719.6	628.6	545.3	1,626.4	719.6	628.6	545.3	1,626.4
Per-capita net fiscal contribution	-65.5	-134.5	-298.6	777.1	146.9	77.9	-86.2	989.5
Per-capita GDP	3 545.7				3 545.7			
Per-capita net fiscal contribution % per capita GDP	-1.9	-3.8	-8.4	21.9	4.1	2.2	2.4	27.9
Revenue-to-expenditure ratio	0.92	0.82	0.65	1.92	1.26	1.14	0.86	2.55

Note: 2006 values are provided in the Ghanaian New Cedi and not in the second Cedi.

Source: Authors' own work based on Ghana Statistical Service (2016), *Ghana Living Standard Survey 5 and 6 microdata http://www.statsghana.gov.gh/nada/index.php/home*

Conclusions

The analysis in this chapter contributes to the literature on the fiscal impact of immigration, and sheds light on how the fiscal balance of Ghana is impacted by immigrants. The results show that, in 2013, the direct net fiscal contribution of immigrants exceeded the contribution of their native-born counterparts, irrespective of the cost scenario considered.

While a foreign-born individual contributes more to income, value-added, trade and corporate taxes when compared to a native-born individual, the difference is offset by the latter's higher contribution to other taxes (taxes on oil, non-tax revenue, as well as taxes on oil and mineral royalties). However, government expenditure per capita is much lower for immigrants, which results in a more positive per-capita net fiscal contribution of immigrants.

The analysis in this chapter is based on many assumptions. For instance, no detailed information is available on the actual contribution of immigrants to social security, or on the payment of taxes with regard to international trade. The results should therefore be taken as indicative, and as a useful basis for discussion, rather than an accurate quantitative statement of the respective contributions of native-born and foreign-born persons.

Notes

1. According to World Bank/UNICEF (2009), the Free Compulsory Universal Basic Education (fCUBE) initiative in Ghana was scaled to the national level in 2005/06.
2. Conclusions based on the disaggregation of the foreign-born population (other ECOWAS, non-ECOWAS African countries, non-African countries) need to be interpreted with care as the respective sample sizes are quite small.
3. The survey design allowed to identify whether the income provided by an individual was before- or after-tax income.
4. Furthermore, it is found that the exclusion of poor households does not significantly alter the results, underlining the heightened consumption of zero-rated goods by the poor.
5. Non-rivalrous: the consumption of a public good by one individual does not reduce the benefit received/consumption of another person. Non-excludable: a person cannot be excluded from consuming the public good.
6. When using the CPI provided by the World Bank, readjusted for 2013 as the base year. This is also used for further calculations of real increases in this chapter.

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ANNEX 6.A1

Technical Annex

Table 6.A1.1. **Personal income tax rate and thresholds, 2006**

Taxable Income (GHC)	Tax Rate (%)	Cumulative Taxable Income (GHC)
First 240	0	240
Next 240	5	480
Next 1 200	10	1 680
Next 7 920	17.5	9 600
Exceeding 9 600	25	

Source: IDRC, 2010, pg.156.

Table 6.A1.2. **Personal income tax rate and thresholds, 2013**

Taxable Income (GHC)	Tax Rate (%)	Cumulative Taxable Income (GHC)
First 1 584	0	1 584
Next 792	5	2 376
Next 1 104	10	3 480
Next 28 200	17.5	31 680
Exceeding 31 680	25	

Source: PWC (2013).

Table 6.A1.3. **Estimates of income tax for natives and immigrants, 2006**

Place of birth	Amount (GHC '000)	Income tax share (%)	Population share (%)	Per capita amount (GHC)
Native-born	836 000	99.5	98.7	19.5
Foreign-born	4 510	0.5	1.3	7.9
Other ECOWAS	2 580	0.3	1.0	5.9
Non-ECOWAS African countries	340	0.0	0.2	3.8
Non-African countries	1 590	0.2	0.1	33.2
Total Estimates	**840 500**	**100**	**100**	**19.3**

Note: Income tax includes both taxes paid by wage employees and those self-employed. Estimates are presented in Ghana New Cedi.

Source: Authors' own work based on Ghana Statistical Service (2016).

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How Immigrants Contribute to Ghana's Economy

Immigrant workers contribute to the Ghanaian economy in several ways. They are well integrated in labour markets in terms of employment, although female immigrants often face greater challenges than male immigrants. Even though much of the employment of immigrant workers appears to be demand-driven, immigration may have some displacement effects in particular for native-born women. The contribution of immigrants to the government's fiscal balance exceeds the contribution of the native-born population on a per capita basis. The overall contribution of immigrants to GDP is estimated at 1.5%. Ghana is aiming to mainstream migration into development policies, and this objective would benefit from stronger labour market information and analysis systems.

How Immigrants Contribute to Ghana's Economy is the result of a project carried out by the OECD Development Centre and the International Labour Organization, with support from the European Union. The project aimed to analyse several economic impacts – on the labour market, economic growth, and public finance – of immigration in ten partner countries: Argentina, Costa Rica, Côte d'Ivoire, the Dominican Republic, Ghana, Kyrgyzstan, Nepal, Rwanda, South Africa and Thailand. The empirical evidence stems from a combination of quantitative and qualitative analyses of secondary and in some cases primary data sources.

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