ABDURRAHMAN AYDEMIR
Sabanci University, Turkey and IZA, Germany

I Z A
World of Labor
Evidence-based policy making

Skill-based immigration, economic integration, and economic performance

Benefiting from highly skilled immigrants requires a complementary mix of immigrant selection and economic integration policies

ELEVATOR PITCH

Studies for major immigrant-receiving countries provide evidence on the comparative economic performance of immigrant classes (skill-, kinship-, and humanitarian-based). Developed countries are increasingly competing for high-skilled immigrants, who perform better in the labor market. However, there are serious challenges to their economic integration, which highlights a need for complementary immigration and integration policies.

Shares of kinship- and skill-based immigrant admissions

Source: Official government statistics.

KEY FINDINGS

Pros

⊕ Skill-based selection of immigrants responds to the needs of the economy.

⊕ High-skilled immigrants have better labor market prospects in general than do immigrants admitted based on kinship ties or for humanitarian reasons.

⊕ High-skilled immigrants boost innovation, a key to long-term economic growth.

⊕ High-skilled immigrants in the labor market can raise wages for low-skilled native workers struggling with declining labor market prospects.

⊕ Highly paid skill-based immigrants may widen the tax base and help offset growing fiscal challenges.

Cons

⊖ The design of selection systems for skill-based admissions is complicated and requires frequent updating as the economic environment changes.

⊖ Skill-based immigrants face formidable economic integration challenges due to skill and credential transferability problems and underutilization of their human capital.

⊖ Identifying short-term skill shortages as a basis for admissions is difficult.

⊖ Allocating a higher share of immigrant admissions based on skills usually comes at the expense of kinship- and humanitarian-based admissions.

AUTHOR'S MAIN MESSAGE

Labor market prospects are better for skill-based immigrants than for other immigrants. However, skill-based admission will not solve all the economic outcome problems of immigration, including weak economic integration. Designing skill-based selection policies is complicated; policies need to reflect labor market characteristics and the applicant pool. To maximize benefits, immigrant selection policies should be complemented by economic integration policies to ease the transfer of foreign human capital.
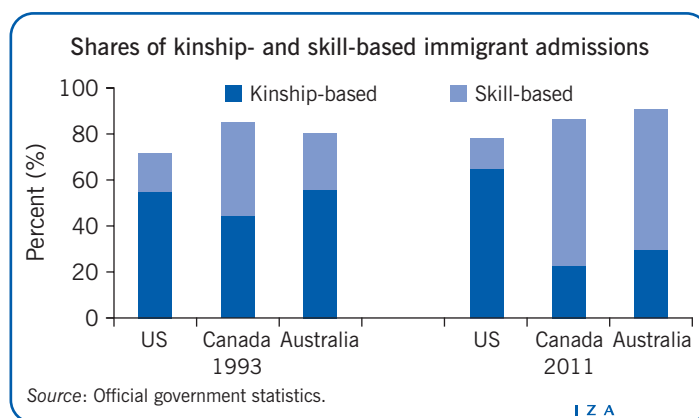
MOTIVATION

Improving the economic impact of immigrants is an important policy issue in several developed countries. Immigrants are expected to contribute to economic growth by supplying needed skills and enhancing the labor force. Policy discussions center on identifying which type of immigrant flow will maximize these expected economic benefits.

Many immigrants arrive in the destination country because of kinship ties with earlier immigrants in that country (so called "chain-migration"). These immigrants base their immigration decisions on information received from family members in the destination country. This reduces faulty decisions based on unrealistic or unreliable information about labor market prospects in the destination country. Kinship-based immigrants also have access to the networks of their family members, which facilitates their integration into the new country. However, working-age kinship-based immigrants tend to be less skilled than working-age native workers, which poses challenges for their economic integration.

While immigration of low-skilled workers reduces the wages of low-skilled native workers at least in the short run, the reverse is true for high-skilled immigrants, who have better employment prospects and integrate better into the economy [1]. Skilled immigrants increase the receiving country's human capital stock, boost returns on physical capital, and may spur research and innovation that increase the country's long-term economic growth prospects. Claims are also made that admitting high-skilled immigrants to fill short-term skill shortages in the economy can improve industrial competitiveness and keep jobs in the country. Highly paid skill-based immigrants may widen the tax base and help offset growing fiscal challenges, especially those associated with aging populations. Better overall labor market prospects are important for maintaining public support for immigration, as opposition to immigration rises with perceptions of heavy welfare reliance.

For these reasons, attracting the best trained and most skilled workers has become an important policy objective. Each immigrant-receiving country makes its own choices with regards to the rules of selection, and these policies play an important role in shaping the economic outcomes of immigrants. This paper presents evidence on the advantages and challenges of skill-based visa systems and compares them with other systems, such as kinship-based, humanitarian-based, and temporary admissions.

DISCUSSION OF PROS AND CONS

Visa categories and immigrant selection

There are three main visa categories for admission of permanent immigrants:

- kinship-based;

- skill-based; and

- humanitarian-based (refugees and asylum-seekers).

Kinship-based admissions—also referred to as family reunification or family class—grant admissions to family members of existing immigrants. The skill-based class

consists of individuals who are assessed for their skills and employability. Immigrants in this group are referred to as skilled workers, economy class, occupation-based, or employment-based immigrants. The refugee class admits individuals based on humanitarian grounds. Kinship- and humanitarian-based immigrants are not assessed for skills.

Besides these permanent admission categories, host countries also admit individuals on temporary visas. These include temporary workers and students who wish to pursue their education in the host country. A number of temporary residents later change to a permanent status by applying again through a skill-based admissions category.

The share of skill-based admissions varies considerably across host countries. In recent years, Australia, Canada, and New Zealand have admitted most immigrants based on the country's skill requirements. The numbers of skill-based admissions have been much lower in the UK and the US.

Skill-based admissions: Australia and Canada

There have been substantial changes over time in some receiving countries in the composition of permanent immigrants by immigrant class, reflecting the changing priorities of immigration policies. Since the early 1990s, the share of skill-based admissions among immigrants has risen sharply in Australia and Canada. For example, the share of immigrants admitted to Canada under the skill-based classification rose to 63% of 249,000 immigrants admitted in 2011 from 41% of 257,000 immigrants admitted into the country in 1993. Over the same period, the share of immigrants admitted under the kinship-based "family" class declined from around 44% to 23%, indicating that the increase in skill-based admissions came at the expense of kinship-based admissions.

There are also substantial differences across receiving countries in their approaches to the selection of skill-based immigrants. Some receiving countries pursue a long-term growth strategy through skill-based immigration, while others use that category of admissions to meet short-term demand for labor in certain sectors of the economy.

In 1967, Canada became the first country to introduce a point system to select skill-based immigrants. Australia followed in the early 1970s and New Zealand in 1991. In general, point systems assess applicants by assigning points for age, work experience, education, language ability, and occupation. Applicants may also receive points for arranged employment, close relatives in the destination country, spouse's education level, prior work experience, and education received in the country of destination. These characteristics are believed to promote the economic integration of immigrants into the country.

The Canadian point system was designed initially to meet short-term labor market needs by assigning points to specific occupations that were deemed to be in short supply. Maintaining detailed lists of occupations in demand, however, proved difficult. Starting in the early 1990s, a human capital approach was adopted instead, with a focus on general human capital characteristics and the long-term economic prospects of immigrants rather than on the country's short-term labor market needs. The Australian point system was based on the same ideas as the Canadian point

system: points were awarded for human capital characteristics. Both systems have been substantially revised over time as policymakers searched for a more effective selection system. Sometimes system objectives and design diverged and at other times they converged.

A serious challenge to the Canadian point system was the marked deterioration in the labor market performance of successive immigrant arrival cohorts despite substantially higher education levels. This was evidence of major difficulties in the transfer of foreign human capital.

By the late 1990s, Australia was responding to the rising number of admissions by revising its admissions system, requiring applicants to be formally assessed for vocational-level English, occupations on a skilled occupation list, and post-secondary qualifications. These changes emphasized a short-term view and aimed to increase the employability of immigrants soon after their arrival. In an important change, Australia also introduced a mechanism for facilitating the transition of temporary workers and international students to permanent resident status through skill-based admission categories.

Following the Australian model, Canada has adopted several changes since the mid-2000s that have increased the emphasis on meeting the short-term needs of the economy, with a greater reliance on temporary workers and international students as a source of future skill-based admissions. During this period, Canada experienced a sharp increase in the number of temporary workers and international students (the pool of potential skill-based immigrant applications of the future). It decentralized immigrant admissions by allowing provinces to nominate immigrants based on local labor market needs.

Employer-based admissions: The US

These changes in Australian and Canadian admission policies aimed to solve the language ability and credentials recognition problems that were keeping immigrants admitted based on skill requirements from using their skills effectively. The policy changes brought Australia and Canada's policies closer to the employer-based admissions policy of the US.

Most employment-based immigrants in the US are former temporary workers sponsored by their employers. Many of these workers had been international students employed on a temporary basis following graduation. Thus, the screening mechanisms of US higher education institutions and employers play a pivotal role in shaping the applicant pool for permanent residence. This approach encourages foreign students graduating from US institutions of higher education to stay in the country and work, creating a pool of foreign talent for employment-based admissions. By the time these prospective immigrants apply for permanent admission, they will have demonstrated both their language ability and their employability by holding a high-skilled job. In this system, immigration policy affects the skill levels of employment-based immigrants through the labor certification process and gives priority to professionals and highly skilled workers.

Enhanced skill-based admission

Many countries have introduced or enhanced skill-based admissions policies in response to inferior labor market outcomes for immigrants compared to native-born workers with comparable human capital characteristics as well as from a desire to attract a larger share of the world's talent pool. There is growing interest in Europe for policies to identify and select highly skilled immigrants:

- The UK launched the Highly Skilled Migrant Programme (HSMP) in 2002, which was replaced by a points-based management system in 2008.

- Immigration policy changes were also introduced in 2006–2007 in Denmark, France, Germany, Ireland, and the Netherlands that aimed for a more proactive and selective policy that would attract high-skilled migrants.

- A new points-based green card scheme was introduced in Denmark, with points based on earnings, qualifications, and skills identified on a shortage list. The Netherlands also introduced a points-based system in 2008.

- Eastern European countries have been encouraging high-skilled immigrants, with the Czech Republic, for example, having issued green cards in 2008 that offered card holders the possibility of applying for permanent residence after three years.

Most of these changes have been introduced on a small scale in recent years, and so there has as yet been little systematic evaluation of the associated rules and outcomes. For three major receiving countries, however—Australia, Canada, and the US—there is evidence on the outcomes of permanent immigrants by visa category on a larger scale.

There are important differences among these three countries in their approach to skill-based admissions. There have also been important changes in the structure of the point system over time. These differences within the skill-based admissions system are as important as differences among skill-based, kinship-based, and humanitarian-based admissions in understanding the observed outcomes by visa category.

An important aspect of a high-skilled immigration policy that is not discussed here concerns the implications for the sending countries, their society on the whole and the family left behind in particular. Policies of developed countries that are highly selective may drain sending countries of much-needed skills and human capital, thereby aggravating the economic challenges for developing countries.

Immigrant outcomes by visa category

Understanding how and how much skill-based immigrants differ in their skill composition from kinship-based and humanitarian-based admissions is important for understanding differences in economic outcomes for these immigrant admission classes. Evidence on skill differentials is provided by studies that rely on data that identify immigrants by admission class.

Evidence for Australia and Canada shows that skill-based immigrants have higher levels of education and report higher language ability than other classes of immigrants [2], [3]. For example, among skill-based immigrants arriving in Canada between 2000 and 2001, male skilled workers had 3.9 more years of schooling and female skilled

workers had 3.4 more years than their counterparts in the kinship-based immigration class [3]. The analysis for the US, relying on occupation data to infer skills, finds similarly higher skill levels among employment-based immigrants than among kinship-based immigrants [4].

Whether higher skill levels lead to a relative advantage in actual economic outcomes depends on multiple factors, including:

- recognition of academic credentials;

- importance of family networks in access to jobs; and

- differences by admission class in further human capital investments after migration.

Several studies investigate the differences in economic outcomes across visa categories and look at how these differences evolve over time.

Australian evidence on the labor force participation and employment outcomes of immigrants who arrived during the mid-1990s shows that, for the most part, immigrants selected based on skill requirements have better labor market outcomes shortly after arrival [2]. The gaps in labor force participation rates persist over the first 18 months in the country, but the head start for skill-based immigrants in finding employment dissipates over time.

Canadian evidence indicates no differences in labor force participation but lower employment rates for skill-based immigrants than for kinship-based immigrants. In general, these gaps persist over the first 18 months in the country [3]. Several studies for Canada report significantly higher earnings among skill-based immigrants, but they also report a convergence of earnings across immigrant classes over time [3], [5], [6]. Unemployment insurance claim rates are lowest for the skilled-worker immigrant class, followed by the kinship-based class and then by the humanitarian-based class [7].

The US context also provides similar evidence of higher initial earnings among employment-based immigrants compared with kinship-based immigrants, but these fade over time [4], [8]. Further US evidence also reveals a cost to the public coffers for lower-educated immigrants but a net revenue gain for more educated immigrants [9].

This evidence of more favorable outcomes for skill-based immigrants masks the serious problem of immigrant skills being underused. Canadian evidence shows that financial returns to human capital characteristics are much lower for immigrants (most of whom amassed that human capital in a foreign country) than for native-born workers [3], [5]. This discrepancy poses serious challenges for a point system that awards points for characteristics such as education and experience. Lower returns for skills mean either that assessed characteristics do not reflect the true productive capacities of immigrants or that barriers in the market, such as credentials recognition or licensing problems, prevent more productive use of the skills immigrants bring to the country.

The relatively better outcomes of skill-based immigrants coupled with the much lower returns to their human capital compared with those of native-born workers raises

the important question of which group should be used as a benchmark for assessing the success of a skill-based admission strategy. Countries that seek to maximize the contribution of immigrants to the economy need to pay as much attention to returns to human capital as they do to simple labor market outcomes.

For example, the Canadian evidence for immigrant cohorts arriving in the 1980s and 1990s indicates significantly higher earnings among skill-based immigrants than among immigrants in other visa categories. Yet during the same period there was a marked deterioration in the outcomes of successive immigrant arrival cohorts compared with native-born workers with similar characteristics. Although immigrant men arriving in the early 1980s earned about 24% less at the time of arrival than did comparably skilled native-born workers, this gap increased to around 40% by the late 1990s. Over the same period, the share of skill-based admissions increased from around 25% of admissions to almost 60%. As a result of these developments, the point system was redesigned during the 1990s and 2000s with the aim of improving economic outcomes for immigrants.

Trade-offs in immigrant selection

Skill-based immigration accounts for a majority of admissions in some countries, while kinship- or humanitarian-based admissions have the largest share in other countries. The resulting skill composition of immigrants relative to native-born workers has important implications for the wage structure.

Favoring high- or low-skilled immigration

Immigration of low-skilled workers reduces the earnings of low-skilled workers and enhances the productivity of high-skilled workers and capital, resulting in an increase in wage inequality. Immigration of high-skilled workers, on the other hand, lowers the income of high-skilled workers and raises the incomes of low-skilled workers and the return to capital, leading to a reduction in wage inequality. Wage inequality has narrowed in Canada as a result of the country's policy favoring high-skilled immigrants, while wage inequality has increased in the US due to the country's predominantly low-skilled immigrant intake [1].

A policy favoring high-skilled immigrants has implications for the long-term growth of both receiving and sending countries. Evidence for the US indicates that high-skilled immigrants boost the innovation that is vital to long-term growth [10]. However, since these immigrants also depress high-skilled wages, policies favoring high-skilled immigrants might reduce investments in skills by native-born workers—which would depress economic growth. The net effect on growth depends on whether immigrants are more innovative and on the type and extent of externalities (both positive and negative) created by the influx of high-skilled immigrants.

Targeting short- or long-term needs of the economy

Receiving countries that aim for an immigration policy favoring high-skilled immigrants also face the choice of whether immigration should serve the short-term needs of the economy or facilitate long-term growth.

Targeting short-term needs requires establishing a list of occupations that are in high demand. Establishing such lists reliably and then maintaining them in a fast-changing environment is a challenge. Immigrants admitted to meet short-term needs may be readily employable and improve a business's competitiveness. However, these benefits may disappear over the long term as demand changes.

Employers play a pivotal role in the admission of permanent immigrants to meet short-term needs, especially where temporary workers make up a large share of the pool of available workers. There are concerns that workers sponsored by employers may be exploited, including the possibility of illegal overstays, and that the wages of native-born workers will be depressed when temporary workers are hired at low wages.

A point system with a long-term human capital perspective, in contrast, has the advantage of selecting immigrants based on general productivity characteristics rather than on changing short-term needs. Difficulty in transferring foreign human capital, especially when there is no explicit offer of a job awaiting the immigrant, is the major challenge in this approach.

LIMITATIONS AND GAPS

Empirical studies have not yet quantified the extent to which skill-based admissions have been able to meet the short-term needs of employers. In addition, evidence for the contribution of immigrants to long-term growth remains limited. While skill-based immigrants have higher earnings and make larger fiscal contributions in the short and medium terms, outcomes for skill- and kinship-based immigrants converge over time as kinship-based immigrants register larger improvements in earnings.

The extent of differences in lifetime contributions of these two streams is unknown. More research is also needed to understand the declining fortunes of successive cohorts of immigrants across many receiving countries, the challenges in transferring foreign human capital, and the kinds of integration policies that can overcome these challenges.

SUMMARY AND POLICY ADVICE

Developed countries vie to attract skilled workers. Generally, skill-based immigrants have better economic outcomes than other immigrants, at least in the short to medium term. But the number of potential immigrants with high economic prospects who can easily integrate with the host labor market is limited. Immigrants (highly skilled or not) are becoming increasingly selective about the labor market prospects and social rights a host country offers. And skill-based admissions usually come at the cost of kinship- and humanitarian-based admissions.

Receiving countries are increasingly relying on international students and temporary workers as a source of skill-based admissions because this system bypasses problems of credentials recognition and admits immigrants with a secured job. So far, however, this channel has contributed just a small fraction of all permanent immigrants.

In Canada and other countries, where per capita immigration and skill-based admissions are much larger than in the US, this system might not yield the desired number of immigrants. Such selection systems have limited effects on the overall economic integration of immigrants, since a large number of immigrants continue to arrive through kinship ties and for humanitarian reasons.

There are important challenges and trade-offs associated with a skill-based admission system:

- *Economic integration*
  Admissions based on skills do not necessarily mean easy economic integration of immigrants. Many difficulties impede the transfer of foreign human capital to host countries, which leads to underutilization of immigrants' skills. Immigrant selection systems and policies that facilitate economic integration should be considered as complementary.

- *Design*
  The design of skill-based immigration systems is complicated, and there seems to be no clear internationally agreed set of rules. Skill-based selection policies should reflect the characteristics of the country's labor market and the applicant pool.

- *Short-term skill shortages*
  Some countries try to predict short-term skill "shortages" and admit immigrants with corresponding skills. Identifying shortages is difficult and, in a dynamic environment with a sluggish policy response, such policies may be ineffective or counterproductive.

Which immigration channel policymakers should pursue depends on the political consensus in the host society and humanitarian considerations. The economic impact, costs, and benefits of the alternative admission strategies should also be considered, including the challenges of economic integration.

Acknowledgments

Competing interests

REFERENCES

Further reading

Aydemir, A. "Skill based immigrant selection and labor market outcomes by visa category." In: Constant, A. F., and K. F. Zimmermann (eds). *International Handbook on the Economics of Migration*. Cheltenham, UK: Edward Elgar, 2013; pp. 432–452.

Green, A. G., and D. A. Green. "The economic goals of Canada's immigration policy: Past and present." *Canadian Public Policy* 25:4 (1999): 426–451.

Key references

[1] Aydemir, A., and G. J. Borjas. "A comparative analysis of the labor market impact of international migration: Canada, Mexico, and the United States." *Journal of the European Economic Association* 5:4 (2007): 663–708.

[2] Cobb-Clark, D. "Do selection criteria make a difference? Visa category and the labour market status of immigrants to Australia." *Economic Record* 76:232 (2000): 15–31.

[3] Aydemir, A. "Immigrant selection and short-term labour market outcomes by visa category." *Journal of Population Economics* 24 (2011): 451–475.

[4] Jasso, G., and M. R. Rosenzweig. "Do immigrants screened for skills do better than family reunification immigrants?" *International Migration Review* 29:1 (1995): 85–111.

[5] De Silva, A. "Earnings of immigrant classes in the early 1980s in Canada: A reexamination." *Canadian Public Policy* 23:2 (1997): 179–202.

[6] Abbott, M. G., and C. M. Beach. *Do Admission Criteria and Economic Recessions Affect Immigrant Earnings?* Study No. 22. Montreal: Institute for Research on Public Policy, 2011.

[7] Marr, B., and P. Siklos. "Immigrant class and the use of unemployment insurance by recent immigrants in Canada: Evidence from a new data base, 1980 to 1995." *International Migration Review* 33:3 (1999): 561–593.

[8] Duleep, H. O., and M. C. Regets. "Admission criteria and immigrant earnings profiles." *International Migration Review* 30:2 (1996): 571–590.

[9] Storesletten, K. "Sustaining fiscal policy through immigration." *Journal of Political Economy* 108:2 (2000): 300–324.

[10] Hunt, J., and M. Gauthier-Loiselle. "How much does immigration boost innovation?" *American Economic Journal: Macroeconomics* 2:2 (2010): 31–56.

The full reference list for this article is available from the IZA World of Labor website (http://wol.iza.org/articles/skill-based-immigration-economic-integration-and-economic performance).