





# The Role of Education-Based Migration in the Country's Economic Development



Wadim Strielkowski , Oleg V. Grebennikov , Elena A. Baydetskaya ,  
and Juliet A. Kuraeva 

**Abstract** Education-based migration plays a decisive role in any country's economic development from the traditional agricultural society to the modern globalized and industrialized economy, which is confirmed by the numerous provisions of economic theory. In this paper, we focus on the multigenerational overlapping pattern framework for educational-based migration occurring before labor market involvement, and examine its roles and pathways in economic development, urbanization, and workforce composition. Given the rapid changes in both the numbers of foreign-born people and in their composition across European countries and other Western developed economies over the past few decades, it is important to explore not only the extent to which mechanisms shaping associations between education and anti-migration attitudes vary between countries, but also how these differences develop over time, and whether these differences are systematically related to economic factors, such as levels of income inequality or economic development, or the stocks of immigrant communities. Our results demonstrate that education-based migration might increase the intellectual potential and innovations in the incumbent countries, as visible from the examples of Erasmus student exchange program in the European Union. Moreover, this migration can be induced using the targeted economic policies such as maintained by Canada or Australia. These findings can be used as guidelines for stakeholders and researchers focusing on deriving the strategies of economic growth.

**Keywords** Education-based migration · Economic development · Economic theory · Labor market participation

**JEL Classification** B50 · I25 · J08 · O10

---

W. Strielkowski (✉)

University of California Berkeley, 303 Giannini Hall, Berkeley, CA 94720, USA

e-mail: [strielkowski@berkeley.edu](mailto:strielkowski@berkeley.edu); [strielkowski@pef.czu.cz](mailto:strielkowski@pef.czu.cz)

Czech University of Life Sciences, Kamýčká 129, 16500 Prague, Czech Republic

O. V. Grebennikov · E. A. Baydetskaya · J. A. Kuraeva

Kuban State University, 149 Stavropolskaya Str., 350040 Krasnodar, Russian Federation

e-mail: [olegvlad@inbox.ru](mailto:olegvlad@inbox.ru)

## 1 Introduction

According to the paradigms of the economic theory, natural increase of the human population and rural–urban (as well as, most recently, international) migration become the major components of urban growth (Jedwab et al., 2017; Jiang et al., 2022; Strielkowski & Weyskrabova, 2014). A growing population in any city means that this city needs more housing units as well as other related facilities required by the dwellers, which causes a rapid urban land expansion and the demand for construction and developer projects (Gao et al., 2022; Metcalf, 2018). Once a rural place or a site becomes urbanized, it can start thriving because of a few advantageous characteristics—the majority of which are the things that draw people more into it (such as new jobs, good schools and educational systems in general, or the way of life distinguished by the opportunities for leisure activities modern urban centers tend to provide for their citizens) (Angelo, 2021). When urban areas develop into vibrant cities and towns, they also come through the process of morphing into cultures societies, which may and often really foster economic and educational growth (Brennan & Cochrane, 2019; Li, 2020). As industrialization generates economic growth, the demand increases for improved educational facilities and government employment agencies, which are characteristic for many urban areas (Cieślak et al., 2016). Industrialization has always historically led to the urbanization and thence to creating economic growth and employment opportunities that attract people to cities (Boateng, 2021; Jandová, 2012). The economic growth experienced over the last decade has been mostly from the city-based sectors (industry and services), and that is particularly the case for better-performing economies such as the developed Western countries (Carson & Carson, 2021).

This is where the migration comes in into the picture. In order to attract new labor force that would be educated and qualifies, those economies in question have to either engage into the brain-drain snapping the skilled individuals from the other countries, or to attract students that would obtain higher education on site and integrate into their societies (Demintseva, 2021).

Group threat theory provides a useful framework for identifying factors shaping attitudes towards migration as well as the ways in which these attitudes might vary depending on individuals' education levels, and external conditions, such as the size of the migration community and economic conditions of the country (García-Muñoz & Milgram-Baleix, 2021). Education also cultivates individuals ability to information-process, and consequently, individuals with higher levels of education are likely to be in better positions to interpret and assess the phenomena of migration, by being able to take into account the potentially long-term positive economic effects migration may have on the receiving countries, through taxes and social contributions, that are generally comparable or even exceed the number of benefits to individuals they derive (Čábelková & Strielkowski, 2013; Conrad & Openo, 2018; Litau, 2018; Vuong & Napier, 2015). The departure of more highly educated individuals from a giving country can also result in a brain drain effect, providing access for the local and incumbent population of the receiving country to the knowledge built up abroad

(Vazzana & Rudi-Poloshka, 2019). The adverse developmental consequences of this type of recruitment to a poorer country could potentially be mitigated through supporting education and training in source countries, especially in fields in which needed skills are scarce. There are arguments for developing countries to compensate developing countries for emigrating their best-educated professionals (Norton, 2020; Waller et al., 2020). The most commonly quoted support for the positive side of this argument is the observation that the returns on the remittances from international migrants have played a phenomenally large part of many developing countries economic accounts, much more so than formal development aid (Emara & Zhang, 2021).

This remittances' role is particularly significant in those countries in which credit markets are not well developed. Remittances, which are the more concrete consequences of international migration for developing countries, have reached significant dimensions globally. If remittances are migrations main benefits in terms of the destination countries, then human resources losses—particularly of highly qualified individuals are its most significant costs (Jushi et al., 2021). This human capital flight can be a substantial economic burden on developing countries, since migrants bring the cost of their education, often subsidized by governments with limited resources. Migration can have high costs for developing countries, leaving a country with insufficient human capital needed for sustained economic growth (Bajra, 2021). In addition, development does not always result in lower migration, brain drain may not be harmful for migrant-sending countries human capital levels, and remittances may not always benefit receiving economies. The development effects of brain drain are more serious in source countries, which have a weaker human resources base, and in which education systems are unable to substitute those emigrating (Yoshino et al., 2020). Often, it is those from developing countries who emigrate are the best-educated. Ironically, migrants from countries where very few people have received higher education are not only more highly educated than their countrymen, they also generally have far higher levels of skills than people from the target countries. Concerning developing countries, it is often discussed how the remittances may result in private investments in education, but little is known about the impact of remittance flows on government spending on education (Eggoh et al., 2019).

Our findings are consistent with findings from earlier works, which, on the basis of country-specific data, showed positive relationships between remittances and private investments in education (Ali Bare et al., 2022; Su et al., 2021; Zhunio et al., 2012). Based on many empirical studies, the empirical support for a reverse-U relationship between the level of remittances and per capita expenditures on education can be found and confirmed. This is due to the fact that education subsidies and remittances can jointly be determined (as shown in the theoretical section), the changes in the real exchange rate can be viewed as an exogenous source of change in the purchasing power of a host countries migrant currency vis-a-vis its purchasing power in its origin country.

## 2 Economic Theory and Migration

According to the provisions on economic theory, Rogers and Williamson (1982) as well as Todaro (1969) have asserted that rural–urban migration is the main cause of urban growth in developed countries. Regression analyses results from the works of many researchers suggest that over half the differences in GDP levels, and roughly half of the difference in GDP growth rates, between the most and least urbanized regions, are explained by metropolitan regions having residents who are, on average, better educated (Dadashpoor et al., 2019; Marshall & Dumbaugh, 2020). In other words, economies of agglomeration and human capital attracted, stored, and generated are all roughly equally important factors explaining why metro areas tend to be wealthier. Technology-based industrial centers attract workers from other areas just as factories once did, contributing to urbanization (Sabatini-Marques et al., 2020).

There appears to be no straightforward linear link between urbanization and economic growth, nor is there any link between urban area and productivity. Insufficient attention is paid to urbanization dynamics and to the nature of growth, including different ways cities may sustain growth, and different forms or components of this growth (Diao et al., 2019). A good example of this is China which is a country of rapid urbanization, strong economic growth rates, and a natural low rate of population increase (Guan et al., 2018). While urbanization offers a number of economic, social, and ecological opportunities, the urban growth in lower-middle-income countries is also one of the key global challenges of the twenty-first century. The growing concentration of the global population in large cities and towns of low- and middle-income countries means that the link between urbanization and development has become a critical policy issue (Cattaneo et al., 2021). Some regions such as Sub-Saharan Africa experienced a large increase in the population in cities in the last half-century, drastically changing the region's economic and spatial profiles. No country has thrived without urbanization, and all developing countries are overwhelmingly urban (Henderson & Kriticos, 2018). The migration of rural populations into urban areas is due in large part to urban predispositions regarding economic development and opportunities. There are economic, political, and social issues that combine with the circumstances of modernization to cause individuals to wish to move from rural areas to urban areas (Zukin, 2020). Structural changes in or lower incomes in rural areas drive migrants away from agriculturally-intensive places toward urban areas. With so many moving out of rural areas, many urbanized cities are starting to experience an overcrowding problem (Bennett et al., 2018). Another negative is the rise of poor neighborhoods in urban fringes, occupied mainly by lower-income residents, which are slowly becoming a part of these cities. Custom, kinship networks, and voluntary associations are generally enough to meet collective social welfare needs in settlements of low densities and in rural areas, but government growth seems an inevitable consequence of an urban, industrialized society (Modai-Snir & Van Ham, 2018). In developed economies, it has been observed that urban residents enjoy higher standards of living, levels of food, and the provision of services compared with those of rural inhabitants (Gebre & Gebremedhin, 2019). Economic, social,

and ecological outcomes all seem influenced by the form, or quality, of urbanization, and by its level (the share of the population that lives in urban areas) or its rate (the rate at which urbanization levels are increasing each year) (Yu, 2021). Here, the term urbanization means an increasing share of the population in the country living in cities. Additionally, area annexation means extending the boundaries of cities, thereby increasing urban populations, which becomes a major driver in individual cities growth (Newman et al., 2019).

According to economic theory, metropolitan areas are larger than city proper, and may be as large as urban agglomerations, but they are different. Urban centers may also be shaped like stars, either if they are in the form of a circular street grid, or if the zoning has been done, with villages being swallowed up within city limits. Such movements are called urbanization—essentially, increasing population in rural areas (an area of 2500 inhabitants or less) to convert it to an urban area (a central city, with surrounding areas, of over 50,000 inhabitants) (Bonnell et al., 2018).

It will be important for urbanized cities to promote job growth and job creation, working with emerging technologies, creating new, innovative companies in their cities, and considering new global markets (Čábelková et al., 2015). Removing barriers to rural–urban mobility can drive economic growth, but the benefits would be far greater if supported with policies, markets, and infrastructure investments. If cities are going to embrace urbanization and its rapidly growing populations, they are going to have to figure out what works, what does not, and how to deal quickly with negative consequences of urbanization in order to survive (Corsini et al., 2021).

In general terms, some limitations of data about immigration and data linking immigration to urbanization make it difficult for researchers and policymakers to fully understand the effects of immigration on cities, as well as the ways that moving to cities impacts migrants. Rural jobs, such as agriculture and mining, are likely to be labor-intensive (that is, unless taken over by machines or automated devices), whereas opportunities for employment in cities—such as health care, commerce, and education—will require significant numbers of individuals with different skillsets to fill the myriad jobs. It can be expected that the children and grandchildren of mid-nineteenth-century urban residents in countries such as the United States would be far more likely to enter industrial jobs than would descendants of farmers. It can be also expected third-generation immigrants to be far more likely than older-born American-born birth cohorts of the late nineteenth and early twentieth centuries to have been exposed to emerging opportunities in urban industrial economies (Bolzani, 2020). In the 1880s, on the eve of the Industrialization era, when nearly half the wage-earning labor force in the United States was in the farm sector, immigrants and their children made up roughly a third of all workers (Husband & O’Loughlin, 2019). The workforce that made industrialization possible consisted of millions of recently arrived immigrants, and still larger numbers from rural areas. This shows the positive impact of migration on the economic prosperity and growth.

### 3 Student Migration and Country's Intellectual Potential

The conditions of changing human capital can be best explained using the example of migration potential of students. It appears interesting to examine the potential for students to migrate in regions of differing conditions on economic, cultural, scientific, and educational fields. The factors determining domestic and international migration as well as student migration potential can help researchers to understand these processes (França et al., 2018). The research of the factors that develop human capital in relation to migration processes trends is highly important nowadays. One factor that influences migration behaviors of students is regional differentiation of human and intellectual capital stocks. This metric is important to investigate students' migration potential. The results from some studies also suggest that non-observed factors have played non-negligible roles in the assortative of young people between families who migrate and those who do not (Tosi et al., 2019). Although it is impossible to determine the precise nature of the selection mechanism based on these data, it is evident that the unobserved factors are selected in non-random ways, which dampens negative associations that might otherwise emerge between family migration and labor force participation among young people (Jones et al., 2020).

Insofar as the outcome variables in question are not likely to directly affect whether or not a family member migrated, the results are at the very least suggestive of causal effects—in the classical counterfactual sense of the term—from the immigration of a family member on non-migrants' educational outcomes and economic activities (Triventi et al., 2021). Here, too, the parameter estimates on control variables for migrants and non-migrants tend to track each other fairly closely, suggesting that the net effects of familial, demographic, geographic, and socioeconomic characteristics on young adults' labor force participation are broadly uniform in relation to family migration. Socioeconomic factors that play an important role in examining student migration, concepts like inequality are important because students' decision to migrate are dependent on resources, school achievement, motivation, and values formed within their families (Tu & Nehring, 2020). Since the mid-twentieth century, a large variation of the economic development in the developing countries has made migration studies for students and educated, skilled people feasible.

### 4 International Student Mobility: A Case of Erasmus

One of the best examples of the international student mobility in the world is the Erasmus Student Mobility Program that supports the exchange of students among European universities, in particular through student grants that facilitate intra-European international mobility. The long history and widespread recognition of success of the Erasmus Program provides a solid basis for European higher education policymaking in other areas, especially in the field of interregional mobility (Cairns, 2017).

Unlike the Erasmus Student Mobility Program and Erasmus Mundus, the European Higher Education Area is not a European Commission (EC) initiative, though the EC has been involved directly in it since its creation, and has provided support for it (Brooks, 2018). Since the establishment of the Erasmus Student Mobility Program in 1987, over three million students and 350,000 higher education employees have participated in mobility funded under this program. The Erasmus student mobility flows since 1987 have reached the respective levels of two million, which has been increased in recent years due to an expansion of the program into Eastern countries (Jacob et al., 2019). While international student mobility is not an accrual phenomenon, it is no longer merely an exotic choice. Today, we are inclined to think international student mobility has increased significantly over recent years. This is the reason why the European Union has promoted the mobility of students on temporary basis under the framework of the Erasmus program since the late 1980s, based on the idea that mutual exchange is very desirable (Arnaldo Valdés & Gómez Comendador, 2022).

For instance, both the successful history of the Erasmus program, which has in particular supported temporary student mobility across Europe, as well as the focus placed on student mobility as the one and only important goal in the Bologna reform process, highlight the critical role of student mobility in the policies and activities on internationalization in Europe. Indeed, using network analysis allows not only for evidence on structural features of international flows for disabled Erasmus students, but also, in this case, for insights into the connections between universities. These results suggest that there is a cluster of inclusive universities, which are hosting students with disabilities at high rates (De Benedictis & Leoni, 2021). The growing strength of this network with time indicates that Erasmus has been becoming more inclusive as student participation with disabilities has increased.

The student network is characterized by modest assortative between 2008 and 2013, while the women's network corresponds with a trend towards increasing assortative over time, shown by the entire network of Erasmus students. Twenty-six percent of the male participants studied in STEM disciplines in 2008, while 14% of female participants did; this imbalance persisted in 2013, when 17% of males and 11% of females studied in STEM disciplines, also showing a general reduction of Erasmus students with disabilities within STEM disciplines (De Benedictis & Leoni, 2020). The growth of international students across regions within the European Higher Education Area and to Erasmus Program countries is continuing. One can therefore see that the key goal of both the Erasmus Student Mobility Program and of the European Higher Education Area is the increased attractiveness of European higher education, which is often operationalized by its selection as an international student destination. Even in the United Kingdom which has always been a smaller participant in the Erasmus Program because of an imbalance between the continent-based students who are interested in studying in the UK, the limited mobility ambitions of British students (twice as many Erasmus students studying in the UK as going to the continent for studies) and the prioritization of recruiting students as a source of revenue—interest for the program is growing. There are concerns about low levels of external mobility among British students, suggesting universities and the EU



Commission should facilitate opportunities for mobility and make placements under Erasmus more flexible (Ballatore & Ferede, 2013).

There are some novel mobility projects such as the adoption of the European Student Card initiative, which would promote the online administration of mobility cycles, and other more eco-friendly, inclusive approaches, consistent with the Erasmus Charter for Higher Education (ECHE) and ECHE guidelines. This higher education mobility action supports intensive blending programs, which allows groups of higher education institutions to co-develop blending mobility curricula and activities for students and for academics and administration staff.

In addition, HEIs from third countries not associated with the program can send participants under Erasmus spin-off programs (such as Erasmus+), provided that the receiving institution has, simultaneously, an ongoing mobility program funded with external policy funds funding the inbound students and staff of those countries. Mobility over a full academic program is distinguished by the fact that many students are mobile abroad over the full academic program, for example, over a period of three to four years, in order to undertake an entire Bachelor's degree course in a different country. Temporarily mobile students wish to experience another education system for a time, but generally to devote most of the time of study in their country of origin; studying abroad provides contrasts or supplements to studying at home of roughly equivalent quality, and most hope that their home institutions recognize their studies undertaken during their overseas time as equivalent to their own, and therefore not compel them to study any longer than a non-mobile student in order to obtain their degrees.

## 5 Skill-Based Migrants and Canadian Immigration Policy

One of the best examples of the skill-based migration is the making is the Canadian immigration policy. Canada has explored the merits of a skills-based points system for handling a large share of regular migration (Ellermann, 2020). Canada's system created for attracting highly qualified migrants for boosting its labor market and increasing the potential of its economic development is so good that it is used as an example for the same policies in the neighboring United States. There are in fact proposals that would move the United States away from a system where the majority of immigrants are granted entry on the basis of family reunification, and only marginally via green card and refugee status lottery, toward more of a skills-based system like that of Canada (Walsh, 2014). However, it took Canada some time to build an effective and smooth-functioning system and this work started over fifty years ago, back in 1967 (Krysa et al., 2019). Stating its intent to cut the backlog in all classes of immigration applicants, as well as to better address Canada's desired skills needs, the Canadian Federal government passed legislation in 2008 giving the Minister of Immigration new powers to change the immigration intake. Many expected these powers would be used to favor workers in skilled trades, rather than immigrants selected based on education via a points-based system.



According to Ferrer et al. (2014), Canada's implementation of a points-based system—which made skills selection stricter—accounted for a short-run shift in immigrant composition away from the lower-skilled to the higher-skilled. Most of the evidence indicates that immigrant selection on the basis of skills requirements—for example, the points-based systems in Canada and Australia—may have been effective at producing more highly skilled immigration flows than the United States. Overall, the evidence from Australia and Canada highlights the higher human capital endowment for immigrants selected by skills-based policies compared to migrants selected under other policies. There is evidence, at least in the U.S., that lower-skilled citizens are more skeptical about economic immigration generally, and the more skilled someone is, the less skeptical he or she is. In short, a lot of working-class people are skeptical about immigrants, since there is often an argument that immigrants are depressing wages and placing them under stress. The seeming inconsistency of skill levels and educational attainment among working-class migrants with labor market outcomes in Canada is an issue that highlights both the challenges of integration in the post-industrial economy, as well as a stark divide between immigration policy intentions and outcomes.

Some other countries also follow the example of Canada and the points-based system. For example, Tani (2020) confirmed that the policy changes in 1990s Australia improved the quality of affected migrants but had no meaningful effect on measures measuring immigrants' skills, suggesting that this alone might have failed to address labor market-related issues. Furthermore, recent work by Bertoli and Stillman (2019) found that points-based systems, heavily reliant on education, might fail to significantly improve immigrant skills. The complex nature, variety, and relative novelty of skills-based selection criteria might also weaken the effect of information, in contrast with the explicit, transparent information from the immigration racism criteria.

In summary, while skills-based selection would seem to have intuitive effects on social bases for respect, there are other underlying concerns that reduce the effects of such policies. We might be concerned that skills generally serve as proxies for the most problematic bases for selection. As noted, many draw distinctions between legal immigration restrictions on the basis of skills, and illegal discrimination based on factors such as race. For while advocates will claim that skill-based regulations are fair, objective, and transparent, in practice, these types of immigration rules often tend to favor certain groups over others in overly large numbers.

Most of the studies focus more on the evaluation of the efficacy of skills-based immigration policies rather than on the empirical consideration of their role in the selectiveness of immigrants between countries. Despite Canadian immigration policies favoring skilled professionals and those with high levels of education, our skilled immigrants frequently end up in disadvantageous positions when they seek jobs corresponding to their skills and career experiences. Even when performing jobs at similar levels of skills, immigrants are paid far less than their native-born counterparts. The high numbers of Asian immigrants, particularly those from the Peoples Republic of China, Hong Kong, and India, are due largely to the Canadian

government's emphasis on skills, education, and language skills in their independent-candidate selection formula, and the consequent sponsorship of dependents in their families. The rate of immigration per capita to Canada has been relatively steady since the 1950s, with the first and second decades of the twenty-first century seeing steady increases in education and skills levels among immigrants in Canada, as the emphasis is placed on applicants with higher mean productive capacity, and therefore immigrants in Canada are on average more highly educated than Canadians. In the 1990s, Canada had pursued a more aggressive immigration plan, with approximately 200,000 individuals—primarily skilled economic migrants admitted through a points-based system—arriving each year (Hiebert, 2006). The first detailed analysis of Canadian immigration policy came from the Council of Canadian Economics; it called for an increase in immigration, eventually to raise the Canadian population to 100 million. Originally, a skills-based system was focused partly on trying to target immigration to fill cyclical labor shortages, but this approach was cumbersome and was abandoned for a more general skills-based agreement. Canada Citizenship and Immigration Canada (CIC) has significant statutory discretion in setting the levels of targeting and making changes to the skills base system. Recent policy initiatives focus on refining the immigration system so that it best meets the needs of Canadians economy (Sidney, 2014). In recent times, Canadian immigration policy has focused on designated profession immigration, aimed at attracting high-skilled workers with post-secondary education credentials and career experience, in order to best meet Canada's economic needs (Kaushik & Drolet, 2018). To put it differently, Canadian immigration policy has been emphasizing the points-based system, designed to attract skilled immigrants who demonstrate a commitment to being able to participate and contribute in Canada's economy and society. There might be a disconnect between skilled immigrants' needs in Canada and the existing supports offered to them, and indicates that skilled immigrants require effective needs-based settlement services when first choosing to migrate to Canada, and language- and culturally-appropriate health-care services as they move through the settlement and integration processes into their new surroundings.

In this context, it is important to note that the distinction between skilled and unskilled immigrants entered British immigration law with the 1962 introduction of the Commonwealth Immigrants Act, which differentiated skilled workers, those skilled or unskilled workers who had secured employment, and those who were unskilled. All these political decisions appeared to help in increasing the qualified migration to the country and fostering its economic growth and welfare.

## 6 Conclusion

Overall, based on our results and discussion as well as the provisions of classic economic theory outlined above, we can conclude that the country's economic development is likely to be correlated with the education-based migration. Economic theory favors the international migration of the skilled specialists and views it as

a beneficial tool for boosting economic growth. All of this might be particularly important in today's globalized world and Industry 4.0 when intellectual capital and acquired skills become the key elements in creating the innovative and competitive economy.

Our results also show, backed up by the examples of the Erasmus student mobility program and the Canadian immigration policy, that education-based migration might be a good option for increasing the human capital potential and creating economic competitive advantage.

However, policymakers and stakeholders should also remember that in order to attract bright young people, proper and transparent immigration rules should be established. It is quite a paradox that the immigration system of the United States is often called "Byzantine" for its complexity and absurdism—sometimes it is hard to obtain a visa for students and highly-qualified professionals, while in the same time it is possible to win the lottery and receive a Green Card on a random basis (the drawing is random and is done by computer).

To sum this all up, education-based migration needs to be shaped up based on each country's needs and perspectives, it needs to reflect its political goals and desires and it needs to be backed up by both public and business support. Nevertheless, if implemented properly, it can foster economic growth and development, help the economy to survive the shocks, and increase the intellectual capital that is often depleted through the brain-drain. Countries that face such threats as the decrease in population, economic downturns, and other similar issues (the examples include most of the developed Western economies and Russia) need to seriously think over their immigration policies and to attempt to attract perspective students from abroad. In order to do so, they also need to offer a good quality education that would provide necessary knowledge and skills to the newcomers and lure them to enroll into the study programs, either free or paid ones. Good education system means good workforce on the labor market that would mean higher salaries and more taxes collected from the wealthy taxpayers. Those should be the priorities of today's governments all around the world.

**Acknowledgements** The research is carried out with the financial support of the Kuban Scientific Foundation within the framework of the scientific project No. PPN-21.1/46 "Designing and psychological and pedagogical support of joint creative activity of high school students and students in informal educational environments as an innovative form of continuity of school and university in the development of creative talent of children and youth of Kuban".

## References

- Ali Bare, U. A., Bani, Y., Ismail, N. W., & Rosland, A. (2022). Does financial development mediate the impact of remittances on sustainable human capital investment? New insights from SSA countries. *Cogent Economics & Finance*, 10(1), 2078460. <https://doi.org/10.1080/23322039.2022.2078460>
- Angelo, H. (2021). *How green became good: Urbanized nature and the making of cities and citizens*. University of Chicago Press.
- Arnaldo Valdés, R. M., & Gómez Comendador, V. F. (2022). European universities initiative: How universities may contribute to a more sustainable society. *Sustainability*, 14(1), 471. <https://doi.org/10.3390/su14010471>
- Bajra, U. Q. (2021). The interactive effects of remittances on economic growth and inequality in Western Balkan countries. *Journal of Business Economics and Management*, 22(3), 757–775. <https://doi.org/10.3846/jbem.2021.14587>
- Ballatore, M., & Ferede, M. K. (2013). The Erasmus programme in France, Italy and the United Kingdom: Student mobility as a signal of distinction and privilege. *European Educational Research Journal*, 12(4), 525–533. <https://doi.org/10.2304/eerj.2013.12.4.525>
- Bennett, A., Ravikumar, A., & Cronkleton, P. (2018). The effects of rural development policy on land rights distribution and land use scenarios: The case of oil palm in the Peruvian Amazon. *Land Use Policy*, 70, 84–93. <https://doi.org/10.1016/j.landusepol.2017.10.011>
- Bertoli, S., & Stillman, S. (2019). All that glitters is not gold: Wages and education for US immigrants. *Labour Economics*, 61, 101749. <https://doi.org/10.1016/j.labeco.2019.101749>
- Boateng, F. G. (2021). A critique of overpopulation as a cause of pathologies in African cities: Evidence from building collapse in Ghana. *World Development*, 137, 105161. <https://doi.org/10.1016/j.worlddev.2020.105161>
- Bolzani, D. (2020). Thirty years of studies on migrant entrepreneurship: New opportunities for management scholars. *Migrant Entrepreneurship*, 1, 11–54. <https://doi.org/10.1108/978-1-83867-491-520211003>
- Bonnell, K. J., Hargiss, C. L., & Norland, J. E. (2018). Understanding how large metropolitan/inner city, urban cluster, and rural students perceive food systems. *Urban Agriculture & Regional Food Systems*, 3(1), 1–10. <https://doi.org/10.2134/urbanag2017.06.0001>
- Brennan, J., & Cochrane, A. (2019). Universities: In, of, and beyond their cities. *Oxford Review of Education*, 45(2), 188–203. <https://doi.org/10.1080/03054985.2018.1551198>
- Brooks, R. (2018). Higher education mobilities: A cross-national European comparison. *Geoforum*, 93, 87–96. <https://doi.org/10.1016/j.geoforum.2018.05.009>
- Čábelková, I., & Strielkowski, W. (2013). Is the level of taxation a product of culture? A cultural economics approach. *Society and Economy*, 35(4), 513–529. <https://doi.org/10.1556/SocEc.2013.0007>
- Čábelková, I., Abrahám, J., & Strielkowski, W. (2015). Factors influencing job satisfaction in post-transition economies: The case of the Czech Republic. *International Journal of Occupational Safety and Ergonomics*, 21(4), 448–456. <https://doi.org/10.1080/10803548.2015.1073007>
- Cairns, D. (2017). The Erasmus undergraduate exchange programme: A highly qualified success story? *Children's Geographies*, 15(6), 728–740. <https://doi.org/10.1080/14733285.2017.1328485>
- Carson, D. B., & Carson, D. A. (2021). Demographic instability as a barrier to remote economic development in the north: Are cities the answer? *Sustainability*, 13(15), 8566. <https://doi.org/10.3390/su13158566>
- Cattaneo, A., Nelson, A., & McMenomy, T. (2021). Global mapping of urban-rural catchment areas reveals unequal access to services. *Proceedings of the National Academy of Sciences*, 118(2), e2011990118. <https://doi.org/10.1073/pnas.2011990118>
- Ciešlik, A., Michałek, J., & Mycielski, J. (2016). Globalization, international trade, and human development: A case of Central and Eastern Europe. *Czech Journal of Social Sciences, Business and Economics*, 5(2), 6–15. <https://doi.org/10.24984/cjssbe.2016.5.2.1>

- Conrad, D., & Openo, J. (2018). *Assessment strategies for online learning: Engagement and authenticity*. Athabasca University Press.
- Corsini, M., Schöll, E. M., Di Lecce, I., Chatelain, M., Dubiec, A., & Szulkin, M. (2021). Growing in the city: Urban evolutionary ecology of avian growth rates. *Evolutionary Applications*, 14(1), 69–84. <https://doi.org/10.1111/eva.13081>
- Dadashpoor, H., Azizi, P., & Moghadasi, M. (2019). Analyzing spatial patterns, driving forces and predicting future growth scenarios for supporting sustainable urban growth: Evidence from Tabriz metropolitan area, Iran. *Sustainable Cities and Society*, 47, 101502. <https://doi.org/10.1016/j.scs.2019.101502>
- De Benedictis, L. D., & Leoni, S. (2020). Gender bias in the Erasmus network of universities. *Applied Network Science*, 5(1), 1–25. <https://doi.org/10.1007/s41109-020-00297-9>
- De Benedictis, L., & Leoni, S. (2021). Inclusive universities: Evidence from the Erasmus program. *Applied Network Science*, 6(1), 1–21. <https://doi.org/10.1007/s41109-021-00419-x>
- Demintseva, E. (2021). Understanding Russia's Brain Drain in the 2010s. *Problems of Post-Communism*, 68(6), 521–530. <https://doi.org/10.1080/10758216.2021.1905533>
- Diao, S., Yuan, J., & Wu, Y. (2019). Performance evaluation of urban comprehensive carrying capacity of Harbin, Heilongjiang Province in China. *Chinese Geographical Science*, 29(4), 579–590. <https://doi.org/10.1007/s11769-019-1056-9>
- Eggho, J., Bangake, C., & Semedo, G. (2019). Do remittances spur economic growth? Evidence from developing countries. *The Journal of International Trade & Economic Development*, 28(4), 391–418. <https://doi.org/10.1080/09638199.2019.1568522>
- Ellermann, A. (2020). Discrimination in migration and citizenship. *Journal of Ethnic and Migration Studies*, 46(12), 2463–2479. <https://doi.org/10.1080/1369183X.2018.1561053>
- Emara, N., & Zhang, Y. (2021). The non-linear impact of digitization on remittances inflow: Evidence from the BRICS. *Telecommunications Policy*, 45(4), 102112. <https://doi.org/10.1016/j.telpol.2021.102112>
- Ferrer, A. M., Picot, G., & Riddell, W. C. (2014). New directions in immigration policy: Canada's evolving approach to the selection of economic immigrants. *International Migration Review*, 48(3), 846–867. <https://doi.org/10.1111/imre.12121>
- França, T., Alves, E., & Padilla, B. (2018). Portuguese policies fostering international student mobility: A colonial legacy or a new strategy? *Globalisation, Societies and Education*, 16(3), 325–338. <https://doi.org/10.1080/14767724.2018.1457431>
- Gao, S., Li, C., Rong, Y., Yan, Q., Liu, W., & Ma, Z. (2022). The places-people exercise: Understanding spatial patterns and the formation mechanism for urban commercial fitness space in Changchun City, China. *Sustainability*, 14(3), 1358. <https://doi.org/10.3390/su14031358>
- García-Muñoz, T. M., & Milgram-Baleix, J. (2021). Explaining attitudes towards immigration: The role of economic factors. *Politics and Governance*, 9(4), 159–173. <https://doi.org/10.17645/pag.v9i4.4487>
- Gebre, T., & Gebremedhin, B. (2019). The mutual benefits of promoting rural-urban interdependence through linked ecosystem services. *Global Ecology and Conservation*, 20, e00707. <https://doi.org/10.1016/j.gecco.2019.e00707>
- Guan, X., Wei, H., Lu, S., Dai, Q., & Su, H. (2018). Assessment on the urbanization strategy in China: Achievements, challenges and reflections. *Habitat International*, 71, 97–109. <https://doi.org/10.1016/j.habitatint.2017.11.009>
- Henderson, J. V., & Kriticos, S. (2018). The development of the African system of cities. *Annual Review of Economics*, 10, 287–314. <https://doi.org/10.1146/annurev-economics-080217-053207>
- Hiebert, D. (2006). Winning, losing, and still playing the game: The political economy of immigration in Canada. *Tijdschrift Voor Economische En Sociale Geografie*, 97(1), 38–48. <https://doi.org/10.1111/j.1467-9663.2006.00494.x>
- Husband, J., & O'Loughlin, J. (2019). *Daily life in the industrial United States, 1870–1900*. ABC-CLIO Publishing.

- Jacob, M., Kühhirt, M., & Rodrigues, M. (2019). Labour market returns to graduates' international experience: Exploring cross-country variation in Europe. *European Sociological Review*, 35(4), 491–505. <https://doi.org/10.1093/esr/jcz022>
- Jandová, P. (2012). Migration and economic conditions in the EU: A case study of immigrants in Germany. *International Economics Letters*, 1(1), 41–48. <https://doi.org/10.24984/iel.2012.1.1.4>
- Jedwab, R., Christiaensen, L., & Gindelsky, M. (2017). Demography, urbanization and development: Rural push, urban pull and... urban push? *Journal of Urban Economics*, 98, 6–16. <https://doi.org/10.1016/j.jue.2015.09.002>
- Jiang, L., Jones, B., Balk, D., & O'Neill, B. C. (2022). The importance of reclassification to understanding urban growth: A demographic decomposition of the United States, 1990–2010. *Population, Space and Place*, e2562. <https://doi.org/10.1002/psp.2562>
- Jones, A. M., Rice, N., & Zantomio, F. (2020). Acute health shocks and labour market outcomes: Evidence from the post crash era. *Economics & Human Biology*, 36, 100811. <https://doi.org/10.1016/j.ehb.2019.100811>
- Jushi, E., Hysa, E., Cela, A., Panait, M., & Voica, M. C. (2021). Financing growth through remittances and foreign direct investment: Evidences from Balkan Countries. *Journal of Risk and Financial Management*, 14(3), 117. <https://doi.org/10.3390/jrfm14030117>
- Kaushik, V., & Drolet, J. (2018). Settlement and integration needs of skilled immigrants in Canada. *Social Sciences*, 7(5), 76. <https://doi.org/10.3390/socsci7050076>
- Krysa, I., Paludi, M., & Mills, A. J. (2019). The racialization of immigrants in Canada—A historical investigation how race still matters. *Journal of Management History*, 25(1), 97–113. <https://doi.org/10.1108/JMH-09-2018-0048>
- Li, J. (2020). Culture and tourism-led peri-urban transformation in China—The case of Shanghai. *Cities*, 99, 102628. <https://doi.org/10.1016/j.cities.2020.102628>
- Litau, E. Y. (2018). Cognitive science as a pivot of teaching financial disciplines. In *Proceedings of the 31st International Business Information Management Association Conference, IBIMA 2018: Innovation Management and Education Excellence through Vision 2020* (pp. 72–80).
- Marshall, W. E., & Dumbaugh, E. (2020). Revisiting the relationship between traffic congestion and the economy: A longitudinal examination of US metropolitan areas. *Transportation*, 47(1), 275–314. <https://doi.org/10.1007/s11116-018-9884-5>
- Metcalf, G. (2018). Sand castles before the tide? Affordable housing in expensive cities. *Journal of Economic Perspectives*, 32(1), 59–80. <https://doi.org/10.1257/jep.32.1.59>
- Modai-Snir, T., & van Ham, M. (2018). Neighbourhood change and spatial polarization: The roles of increasing inequality and divergent urban development. *Cities*, 82, 108–118. <https://doi.org/10.1016/j.cities.2018.05.009>
- Newman, G., Lee, R. J., Gu, D., Park, Y., Saginor, J., Van Zandt, S., & Li, W. (2019). Evaluating drivers of housing vacancy: A longitudinal analysis of large US cities from 1960 to 2010. *Journal of Housing and the Built Environment*, 34(3), 807–827. <https://doi.org/10.1007/s10901-019-09684-w>
- Norton, G. W. (2020). Lessons from a career in agricultural development and research evaluation. *Applied Economic Perspectives and Policy*, 42(2), 151–167. <https://doi.org/10.1002/aapp.13052>
- Rogers, A., & Williamson, J. G. (1982). Migration, urbanization, and third world development: An overview. *Economic Development and Cultural Change*, 30(3), 463–482. <https://doi.org/10.1086/452572>
- Sabatini-Marques, J., Yigitcanlar, T., Schreiner, T., Wittmann, T., Sotto, D., & Inkinen, T. (2020). Strategizing Smart, Sustainable, and Knowledge-Based Development of Cities: Insights from Florianópolis, Brazil. *Sustainability*, 12(21), 8859. <https://doi.org/10.3390/su12218859>
- Sidney, M. (2014). Settling in: A comparison of local immigrant organizations in the United States and Canada. *International Journal of Canadian Studies*, 49, 105–134. <https://doi.org/10.3138/ijcs.49.105>
- Strielkowski, W., & Weyskrabova, B. (2014). Ukrainian Labour Migration and Remittances in the Czech Republic. *Tijdschrift Voor Economische En Sociale Geografie*, 105(1), 30–45. <https://doi.org/10.1111/tesg.12052>

- Su, C. W., Sun, T., Ahmad, S., & Mirza, N. (2021). Does institutional quality and remittances inflow crowd-in private investment to avoid Dutch Disease? A case for emerging seven (E7) economies. *Resources Policy*, 72, 102111. <https://doi.org/10.1016/j.resourpol.2021.102111>
- Tani, M. (2020). Migration policy and immigrants' labor market performance. *International Migration Review*, 54(1), 35–57. <https://doi.org/10.1177/0197918318815608>
- Todaro, M. P. (1969). A model of labor migration and urban unemployment in less developed countries. *The American Economic Review*, 59(1), 138–148.
- Tosi, F., Impicciatore, R., & Rettaroli, R. (2019). Individual skills and student mobility in Italy: A regional perspective. *Regional Studies*, 53(8), 1099–1111. <https://doi.org/10.1080/00343404.2018.1528008>
- Triventi, M., Barone, C., & Facchini, M. (2021). Upper secondary tracks and student competencies: A selection or a causal effect? Evidence from the Italian case. *Research in Social Stratification and Mobility*, 76, 100626. <https://doi.org/10.1016/j.rssm.2021.100626>
- Tu, M., & Nehring, D. (2020). Remain, return, or re-migrate? The (Im)mobility trajectory of Mainland Chinese students after completing their education in the UK. *International Migration*, 58(3), 43–57. <https://doi.org/10.1111/imig.12589>
- Vazzana, C. M., & Rudi-Poloshka, J. (2019). Appalachia has got talent, but why does it flow away? A study on the determinants of brain drain from rural USA. *Economic Development Quarterly*, 33(3), 220–233. <https://doi.org/10.1177/0891242419844320>
- Vuong, Q. H., & Napier, N. K. (2015). Acculturation and global mindsponge: An emerging market perspective. *International Journal of Intercultural Relations*, 49, 354–367. <https://doi.org/10.1016/j.ijintrel.2015.06.003>
- Walsh, J. (2014). From nations of immigrants to states of transience: Temporary migration in Canada and Australia. *International Sociology*, 29(6), 584–606. <https://doi.org/10.1177/0268580914538682>
- Waller, R., Hodge, S., Holford, J., Milana, M., & Webb, S. (2020). Lifelong education, social inequality and the COVID-19 health pandemic. *International Journal of Lifelong Education*, 39(3), 243–246. <https://doi.org/10.1080/02601370.2020.1790267>
- Yoshino, N., Taghizadeh-Hesary, F., & Otsuka, M. (2020). Determinants of international remittance inflow in Asia-Pacific middle-income countries. *Economic Analysis and Policy*, 68, 29–43. <https://doi.org/10.1016/j.eap.2020.08.003>
- Yu, B. (2021). Ecological effects of new-type urbanization in China. *Renewable and Sustainable Energy Reviews*, 135, 110239. <https://doi.org/10.1016/j.rser.2020.110239>
- Zhunio, M. C., Vishwasrao, S., & Chiang, E. P. (2012). The influence of remittances on education and health outcomes: A cross country study. *Applied Economics*, 44(35), 4605–4616. <https://doi.org/10.1080/00036846.2011.593499>
- Zukin, S. (2020). Seeing like a city: How tech became urban. *Theory and Society*, 49(5), 941–964. <https://doi.org/10.1007/s11186-020-09410-4>