Interreg
Danube Transnational Programme
YOUMIG

YOUMIG project

Output 4.3. Transnational testing of new or improved indicators

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Composed by IOS Regensburg and HCSO based on the reports provided by YOUMIG-partners

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1. Introduction

Work Package 4 "Improved measuring" (WP4)focuses on data collection in order to support evidence-based policymaking in relation to the causes and consequences of youth migration in the Danube Region[1], and in particular across the partners of the YOUMIG project including Austria, Bulgaria, Hungary, Germany, Romania, Serbia, Slovakia and Slovenia. The countries of the Danube Region share deep, historic and economic relations. With the fall of the communist regimes in Eastern Europe and the subsequent enlargement of the European Union, migration flows within the region have intensified. Currently, 40% of all immigrants in each country come from other countries of the Region[2]. Worldwide, and in the region in particular, the migrant pool is becoming younger[3].Youth - widely defined as persons aged 15-34 years – is a highly dynamic group in the Danube Region that accounts for more than half of incoming migrants[4].

Since countries of the region demonstrate significant differences in levels of economic and social development, cross-country migration, in all likelihood, will remain high for the next few years, especially in the "East to West" direction. Austria and Germany (in particular, Baden-Wurttemberg and Bavaria) remain the best performers, achieving the highest GDP per capita levels – well above the EU-27 levels - in the region. Overall, GDP per capita figures range from well above the EU-27 level (Germany and Austria) to a quarter of the EU average (Romania and Bulgaria[5]). Young people – regardless of levels of education - are among those with the highest incidence of unemployment, especially in less-developed countries, and therefore potentially the most mobile group within the region (OECD, 2014; European Commission, 2013, Wickramasekara, 2012). A decision to migrate might be driven by a combination of push (poverty, lack of employment opportunities, low salaries) and pull factors (higher living standards abroad).

While these issues are highly relevant at all governance levels, it is often the municipal actors (e.g., local administration) that face the most significant challenges, which makes clear, accurate and transnationally adopted data for measuring youth migration, a priority. Hence, it is hoped that WP4 will serve to enhance the collective knowledge base on migration in the Danube Region. To begin, a list of relevant indicators, consistent with partner-municipality needs, is created; after that, a new set of consistent indicators is defined in order to track changes in youth migration patterns and assess the socio-demographic and economic impacts of such changes in a manner that responds to governance needs.

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[1]Within The European Strategy for the Danube Region (EUSDR), the Danube Region includes nine EU member states (Austria, Bulgaria, Croatia, Czech Republic, Germany (only Bavaria and Baden-WürtembergWürttemberg), Hungary, Romania, Slovakia and Slovenia), two candidate countries (Montenegro and Serbia) and three neighbouring countries (Bosnia and Herzegovina, Moldavia and Ukraine). For more information, see the website of the EUSDR: https://www.danube-region.eu/about

[2]Fassmann, H., Gruber, E., and Nemeth, A. (2018). Conceptual framework for the study of youth migration in the DanuberDanube region. YOUMIG Working Paper Series, 1. p. 18.

[3]Smith, R. (2006). *Mexican New York: Transnational lives of new immigrants*. Univ of California Press.

[4]Fassmann et al (2018), p.18.

[5]ZEW, IAW and WIIW (2015), Policy Paper: Labour Market and Migration in the Danube Region, Ministry of Finance and Economics Baden-Wuerttemberg on behalf of the European Commission, Mannheim, Tübingen, Wien. Available online at: http://ftp.zew.de/pub/zew-docs/gutachten/PolicyPaper_Labour_market_and_migration2015.pdf
ZEW (2014). Policy paper: Regional Policy in the Danube Region – Benefiting from Heterogeneity
http://ftp.zew.de/pub/zew-docs/gutachten/PolicyPaperPA8_RegionalPolicyDanube2014.pdf

The output should help to contribute to a more accurate interpretation in relation to formulating interventions, strategies and policies that unlock the development potential of young migrants.
The set is the first to be fed into the Data Toolkit, created within the YOUMIG project to provide user-friendly visualisations of the methods and processes involved.

The current report provides an overview of the steps taken in the process of selecting and testing the indicators, and the challenges met during the creation of the final dataset.

2. Development of indicators

The process of selecting indicators followed a step-by-step process of consultations with YOUMIG-partners and relevant stakeholders within WP4 and WP3.

Step 1. A list of 214 indicators in seven migration and development relevant areas - demographics and population, health, education, social development and social capital, economic development, income and living conditions, and urban and regional development - was created by the IOS Regensburg team. In preparing the indicator list, the goals and recommendations issued by the European Commission and other international bodies in such spheres as youth policies, migration, and local sustainable development were analysed[6]. Only the indicators supported by strong scientific evidence were considered.

Step 2. The relevance of each indicator was discussed by experts from participating statistical and research institutions, representatives of the partner-municipalities, and relevant stakeholders (in particular, see the "Status Quo Analysis", WP3).The indicators classified as "not relevant" (see YOUMIG Deliverable 4.1.3, Table 2, column 2) were removed from consideration.

Step 3. The remaining 120 indicators were assessed in terms of (a) their availability at the national, regional, and municipality levels; (b) their necessity for facilitating evidence-based decision making in the sphere of youth, migration, and local development contexts.

Step 4. Based on the necessity-evaluation, a TOP-16 list of "Core indicators" was composed; and each measure specification was refined by partners from statistical offices.

Step 5. Within each participating country, partner institutions collected information on the 16 "Core indicators" (See Table 1 for more details). In view of the differences in data availability, up to 5 "Extra indicators" were added to the national indicator list; a measure that sought to balance the workload across partner countries, allowing municipality partners to add "Non-core" indicators related to pilot

[6] See, among others, The EU priorities for a youth policy (https://ec.europa.eu/youth/policy/youth-strategy_en), The United Nation discussion on The Sustainable Development Goals and Migration (http://www.un.org/en/development/desa/population/migration/events/coordination/14/documents/backgrounddocs/GMPA_14CM.pdf). To account for the individual perceptions in connection to the urban development and migration intentions of the youth, the conclusions of the Urban Millennial Survey 2016 were used as a benchmark (http://www.youthfulcities.com/2016-survey).

projects undertaken pro loco. The data were retrieved from open sources, surveys, provided by statistical bodies on request, or collected in a YOUMIG small-scale survey.

Table 1. "Core indicators" and their (un)availability across partner countries.

	TOP16 Core indicators	AT LOC	BG LOC	DE LOC	HU LOC	RO LOC	RS LOC	SK LOC	SI LOC	**Number of local partners where unavailable**
Priority area I) Population and society										
Topic 1. Demography and population: Population policy, family policy										
1	Population by sex, age, urban/rural, CoC, CoB									-
7	In-migration, internal/international									-
12	Out-migration, internal/international									-
11	Top5 sending countries									1
14	Number of returnees registered, sex, education level									5
Topic 2. Health - *excluded from consideration as directly irrelevant; enters Topic 8 in indirect form*										
Topic 3. Education: Education and science policy										
51	Completed education of persons aged 15-34 by sex, age groups, native/foreign (CoC)									2
53	Student outbound mobility ratio at tertiary level, by sex									7
63	Skill-level of return migrants									7
Topic 4. Social development and Social capital: Diversity management policy										

71	[SUBJ] Subjective well-being in the population									7
73	[SUBJ] Tolerance towards foreigners (foreign workers)									7
75	Intentions to migrate within next 5 years, [if possible] intended destination, duration of absence									6
Part II) Economy, living conditions, and environment Topic 5. Economic development										
105	Regional product (Regional GDP) per capita									-
107	Business demography: number of active enterprises, by size, ownership (local/foreign)									3
Topic 6. Income and living conditions										
123	Disposable household income per capita									5
7. Labour market										
137	Population by activity status, by sex, 5 year age intervals, national/foreign									2
8. Urban and regional development										
180	Work force in health care/Shortage of work in healthcare/Healthcare workforce gap									5
	Total missing	**10**	**5**	**7**	**5**	**8**	**6**	**8**	**8**	**53**

3. Country reports

The country reports overview the collection and testing of data entries for the TOP-16 "Core indicators" across seven participating countries - Austria, Bulgaria, Hungary, Romania, Serbia, Slovakia, and Slovenia - and 16 "Extra indicators" collected only within some participating municipalities to improve the understanding of the local context. Due to data-use restrictions, some of the data collected cannot be revealed to the public and is therefore not covered in the present file. This data should be requested from YOUMIG-partners directly.

Due to the absence of a municipality partner in Germany, the data were partially collected at the national and Bavarian level - this also being the case for the city of Regensburg. The data collection was considered mostly an exercise in communication with the national (Destatis) and regional/local statistical offices to evaluate the extent to which challenges could be met by a hypothetical German municipality willing to collect a similar dataset, and possibly use the YOUMIG-Data tool, in future. The German data set can be provided to any interested party upon request forwarded to the Leibniz Institute for East and Southeast European Studies (IOS Regensburg) at youmig@ios-regensburg.de.

3.1. Austria

Elaboration: IOS & LP
Based on documents prepared by the University of Vienna
Version: revised version, December 2018
Set of new indicators:

No	Indicator	type
1	Population; by sex, age, country of citizenship (CoC)	core
7	In-migration, internal/international	core
11	Top-5 sending countries	core
12	Out-migration, internal/international	core
14	Number of returnees registered, sex, education level	core
51	Completed education of persons aged 15-34, by sex, age groups, country of citizenship (native/foreign)	core
53	Student outbound mobility ratio at tertiary level; by sex	core
63	Skill-level of return migrants	core
71	Subjective well-being (in the population)	core
73	Tolerance towards foreigners (foreign workers)	core
75	Intentions to migrate within next five years, [if possible] intended destination, duration of absence	core
105	Regional GDP per capita (NUTS3), GDP per capita	core
107	Business demography: number of active enterprises; by size (number of employees), ownership (local/foreign owned)	core
123	Disposable household income per capita	core
137	Population, by activity status; by age (5-y. intervals), national-foreign	core
180	Workforce in healthcare/Shortage of work in healthcare/Healthcare workforce gap	core

AT: Indicator 1. Population; by sex, age, country of citizenship (CoC)
Data collected/Definitions
Population on 1 January (stock): based on the concept of usual resident population, namely the number of inhabitants of a given area on 1 January of the year in question for selected years
Data availability and Collection process
Data are available at the Central Population Register of Statistik Austria for the requested period at national, NUTS2 (Styria) and LAU2 (Graz) levels. Stock data, disaggregated by sex and age groups (0-14, 15-24, 25-34, 35-64, 65+) for top-5 migrant groups residing in Austria are available at all three levels. The population data from Statistik Austria are based on the population register.
Development process
Data available: Indicator values requested directly from Statistik Austria.
Data use restriction, coverage and frequency of production
The data are public. Data cover the total population registered in a municipality in Austria (for at least 90 days) in the central population register on 1 January.
Testing
Relevance: Basic demographic data (resident population by age, sex and citizenship) from a time perspective is of crucial importance in countries/municipalities characterised by immigration, emigration or return migration in order to identify trends in population change as much as specific challenges and opportunities emerging in labour markets and social welfare systems at the local and national level. Further, data is relevant from the perspective of education, the sustainability of social security systems or the planning of projects etc. **Accuracy**: The population stock data from Statistik Austria are register based. The quality of the input- as well as of the output database is examined by means of the quality management system. As a result, while the actual resident population might differ from the registered one, the dataset is considered to be accurate. **Timeliness**: Please consult at http://www.statistik.at/web_de/services/statcube/index.html **Accessibility**: (Most) data are accessible at the link provided. **Interpretation**: The *age composition* of the population is necessary to determine the dependency ratio, which provides insights into the number of people of nonworking age (aged 0-14 or 65+) compared to the number of those of working age (aged 15-64). As such, the population indicator is an important tool as in addition to calculating the dependency ratio, it aids discussion concerning the sustainability of the social security system. Aging is one of the most important challenges that most Danube region countries face. Education policies should take into account the share of the young (15-34) and under-age (0-14) population, while acknowledging that information on the active-age population is necessary to formulate labour market policies. Further, age composition also affects natality, mortality and marriage. *Sex composition* is important for planning healthcare and social provisions related to childbearing and for policies targeting gender equality. *Composition by citizenship* reflects the presence of immigration and as such, it could indicate the need for socio-economic and labour market integration policies as well as efforts to strengthen social cohesion. **Coherence**: Data are internally coherent; comparisons with other sources are not applicable. Comparisons across countries/regions/municipalities for analytical purposes are recommended. **Further critical comments**: -

AT: Indicator 7: In-migration, internal/international
Data collected/Definitions
International immigration: annual migration in- and outflows, namely, the number of persons establishing their usual residence (registration) in the territory of Austria for a period of 90 days. Internal immigration is the movement of people from one defined area (municipality) to another within a country**.**
Data availability and Collection process
Data available at the Migration Statistics Database of Statistik Austria for the requested period at national, NUTS2 (Styria) and LAU2 (Graz) levels.
Development process
Data available: Data available online on the Statistik Austria website.
Data use restriction, coverage and frequency of production
The data are public. Data cover the total aggregated population migrating to a municipality in Austria (excepting migration within municipalities), from a foreign country or another municipality in Austria (for a minimum stay of 90 days) between 1 January and 31 December of a year.
Testing
Relevance: Immigration flow data – both internal and international – are mainly relevant in countries/municipalities characterised predominantly by immigration. Beyond natality and mortality, migration flows determine population size, and therefore have an important influence a crucial element planning policies related to the population, including economic and labour market policies, education, healthcare and social provisions etc. Further, where immigration is present, social cohesion and integration policies might be needed. **Accuracy**: The dataset is considered to be accurate. **Timeliness**: Please consult at www.statcube.at **Accessibility**: Data accessible upon request **Interpretation**: Immigration flow data indicate the attractiveness of the municipality/region/country for the inhabitants of the same or other countries. Growing immigration can be a sign that an area is perceived by potential immigrants as a relatively developed and prosperous destination characterised by higher wages and better living conditions. In contrast, a low level or lack of international and/or internal immigration, from viewpoint of potential immigrants, might point to the relative underdevelopment of an area. In economies characterised by an aging population and high levels of labour demand, immigration is usually seen as an advantageous phenomenon. The immigration of highly educated and/or skilled workers is often interpreted as a “brain gain”, and is considered highly beneficial for the economies of receiving countries. **Coherence**: Data are internally coherent; comparisons with other sources are not applicable. Comparisons across countries/regions/municipalities for analytical purposes are recommended **Further critical comments**: -

AT: Indicator 11: Top-5 sending countries
Data collected/Definitions
TOP-5 origin countries of international immigrants using flow data (for a definition see indicator 7) and stock (for a definition see indicator 1); based on the concept of country of birth or country of citizenship.
Data availability and Collection process
Data available at the Central Population Register and the Migration Statistics Database of Statistik Austria for the requested period at national, NUTS2 (Styria) and LAU2 (Graz) levels.
Development process
Data available: Data available online on the Statistik Austria website.
Data use restriction, coverage and frequency of production
The data are public. Data cover a) total population inflow (immigration) between 1 January and 31 December to Austria from a foreign country (for at minimum stay of 90 days) –top 5 inflow countries; and b) total population stock on 1 January in Austria (excepting migration within the municipalities) from people with a foreign citizenship /top 5 countries).
Testing
Relevance: Sending countries are mainly relevant in countries/municipalities characterised predominantly by immigration. Knowledge of the origin of migrants is needed to create well-targeted cultural and integration policies. **Accuracy**: The stock and flow datasets are considered to be accurate. **Timeliness**: Please consult at http://www.statistik.at and www.statcube.at **Accessibility**: Data accessible upon request **Interpretation**: Knowledge of the origin and size of the largest immigrant communities and diasporas of foreign citizens in a municipality/region/country - based on the number of arrivals per year or the number of residents from a given sending country - is indispensable for decision makers preparing policy measures aimed at strengthening social cohesion and enhancing the social and labour market integration of immigrants. Changes over time in the most important diasporas-approximated by groups of different migration backgrounds – can signal which immigrant groups require prioritisation in local development strategies, as much as define relationships at policy level with sending countries, thereby enhancing transnational, economic and social ties. **Further critical comments**: -

AT: Indicator 12: Out-migration, internal/international
Data collected/Definitions
International emigration: annual migration flows, namely, the number of persons establishing their usual residence in the territory of a country for a period that is, or is expected to be, at least 12 months, having previously been usual resident in another country. Internal emigration is the movement of people from one defined area to another within a country**.**
Data availability and Collection process
Data are available at the Migration Statistics Database of Statistik Austria for the requested period at national, NUTS2 (Styria) and LAU2 (Graz) levels.
Development process
Data available: Direct request of indicator values from Statistik Austria.
Data use restriction, coverage and frequency of production
The data are public. Data cover the total population outflows (emigration) between 1 January and 31 December from Austria to a foreign country.
Testing
Relevance: Emigration flow data – both internal and international – are mainly relevant in countries/municipalities characterised by emigration and return migration. Beyond natality and mortality, migration flows determine the size of a population, thus their changes over time constitute a crucial element in planning policies related to the population, including economic and labour market policies, education, healthcare and social provisions. Where emigration is a common life strategy for a population, and especially for youth, challenges related to an increasingly aging society in the Danube region are set to emerge, such as the deteriorating sustainability of the social welfare system, and growing unmet labour demand. **Accuracy**: The dataset is considered to be accurate. **Timeliness**: Please consult at www.statcube.at **Accessibility**: Data are accessible upon request. **Interpretation**: Emigration flow data indicate the potential of the municipality/region/country for maintaining its population. Growing emigration can suggest that an area is perceived by (potential) emigrants as a relatively underdeveloped and less prosperous area characterised by lower wages and worse living conditions. In economies characterised by an aging population and high levels of labour demand, emigration is seen as a serious challenge threatening the sustainability of the whole economy and society. However, beyond population loss and “brain drain”, outmigration can also bring benefits to origin countries: emigrants often send considerable amounts in remittances; some make investments back home, while others return bringing new skills and know-how. Relationships with strong diasporas in destinations are potentially beneficial and offer opportunities to enhance transnational businesses, etc. **Coherence**: Data are internally coherent. Comparisons across countries/regions/municipalities for analytical purposes are recommended **Further critical comments**: -

AT: Indicator 14: Number of returnees registered, sex, education level

Data collected/Definitions

Number of residents born in the reporting country, immigrated from abroad per year (flow) after a short or long-term stay in another country, by sex and educational attainment.

Data availability and Collection process

Variant 1) Only annual international inflows of Austrian-born residents to Austria/Styria/Graz by sex are available at the Migration Statistics Database of Statistik Austria for the requested period at national, NUTS2 (Styria) and LAU2 (Graz) levels. This is a proxy for the requested indicator. Educational levels are not available.
Variant 2) Data from the Eurostat database are available only for the years 2010-2016. Disaggregation is only available by sex at the national level, and not available by educational attainment at any levels.
Eurostat prepares estimations based on input data provided by national statistical institutes.

Development process

Variant 1) Indicator development: Data query from Statistik Austria Migration Statistics Database.
Variant 2) Data available: accessible in the Eurostat database (please consult https://ec.europa.eu/eurostat/data/database).

Data use restriction, coverage and frequency of production

Variant 1) The data are public.
Data cover International inflow (immigration) of people from a foreign country to Austria that were born in Austria between 1 January and 31 of December.
Variant 2) The data are public.
On the coverage and frequency of updating Eurostat data, please consult the Eurostat database.

Testing

Relevance: Data on the flow of return migrants are mainly relevant in countries/municipalities characterised by return migration and emigration. In several aspects, the relevance of return migration flows is similar to that of immigration flows, but there are also some striking differences: return migration can ease the challenges posed by outmigration and reduce population losses due to emigration, further; the integration of return migrants appears less challenging for local and national governments than that of foreign citizens.

Accuracy:

- **Variant 1)** The dataset is considered to be accurate.
- **Variant 2)** Return migration flow data published by Eurostat is based on the register-based input data sent by Statistic Austria, corrected and examined by the Eurostat Quality Management system. For more details, please consult the Eurostat database.

Timeliness:

- **Variant 1)** Please consult at www.statcube.at
- **Variant 2)**On the frequency of updating Eurostat data, please consult the Eurostat database.

Accessibility:

- **Variant 1)** Data accessible upon request
- **Variant 2)** Data accessible in the Eurostat database https://ec.europa.eu/eurostat/data/database)

Interpretation: Return migration, especially of the skilled and highly educated, is seen as one of the most beneficial forms of migration. It is usually interpreted as a *triple win solution* in which both sending and destination countries, as well as the migrants themselves, profit from the experience: 1) migrants earn higher wages and acquire marketable skills largely unavailable in their origin countries; 2) destination countries in need of migrant labour can benefit from the immigration of foreign workers without the costs of integration policies; 3) origin countries can gain from receiving remittances, while return migration reduces the costs of population loss. Returners might also bring home financial, human and social capital that can be used productively in origin countries.
Outmigration and return migration of a person that occurs repeatedly is referred to as re-migration, circular migration, etc; and in the case of skilled workers, “brain circulation” is often mentioned. This circularity of migrants is commonly thought to be the most beneficial and desirable forms of migration.

Coherence: The comparison of the variants reveals differences between the results obtained from different sources. Comparisons across countries/regions/municipalities for analytical purposes are recommended.

Further critical comments:

- Dimension “return to country of origin”:
The migration statistics in Austria collect data on “where people come from when migrating to Austria” (immigration) and “where they are going” (emigration) (by age, citizenship, sex).
Challenge: Not everyone registers and even fewer people deregister (e.g., children get invited to attend kindergarten but cannot be found); and clearance of the general population register happens on a regular basis.
There is therefore no clear statement possible on “return migration” (depending on what the indicator is supposed to mean) from the migration statistics. But for flows between, for example,
Hungary and Austria, there is data available at Austrian statistics.
- ***Dimension*** **“return to Graz”:**
It is not possible to say who “returns” to Graz when registering in Graz, since there is no category or question in the registration process were people state if they have previously lived in Graz. At this point, it is not possible to distinguish between people moving to Graz for the first time or returnees.
Note: Soon, Statistik Austria plans to provide longitudinal migration data, which will make it easier to follow migration courses and maybe return migration.
- Dimension “return (from Graz) to a YOUMIG country (e.g., after studying)”:
It is only possible to measure emigration from Graz to a YOUMIG country – there is no data on whether people have lived in the country before.

AT: Indicator 51: Completed education of persons aged 15-34, by sex, age groups, country of citizenship (native/foreign)
Data collected/Definitions
Educational attainment of the native and foreign resident population aged 15-34: 1) Low education: Less than primary, primary and lower secondary education (ISCED 2011 levels 0-2); 2) Medium education: Upper secondary and post-secondary non-tertiary education (ISCED 2011 levels 3 and 4); 3)High education: Tertiary education (ISCED 2011 levels 5-8)
Data availability and Collection process
Data from LFS are available for the requested years. Data disaggregated by educational attainment, sex and citizenship (national/foreign) are only available at national and NUTS2 (Styria) levels. LFS is carried out using stratified sampling that is representative at the national level (weighted estimation). Statistik Austria is further combining the data from the LFS with the population register, creating "harmonized labour statistics" (Abgestimmte Erwerbsstatistik) – this data can provide information about the labour and educational status of the population.
Development process
Indicator development: Data query from LFS (and harmonized labour statistics) using the following variables: • Household address • Citizenship • Level of education • Date of birth • Sex
Data use restriction, coverage and frequency of production
Data are available, but not in the public domain. For more information, contact the data owner. Data cover the members of surveyed households in the municipality/region/country. LFS data are produced on a quarterly basis.
Testing
Relevance: The educational attainment of the population is relevant in countries characterised by immigration, emigration and return migration. People possessing a higher education are more productive at work, and their earnings potential, life expectancy and general health tend to be better. Further, their life satisfaction is higher than those who are less skilled. Thus, while high levels of educational attainment in the population positively affect the wider economy, the health system, as well as individual and psychosocial characteristics beyond economic and labour-related outcomes also benefits. **Accuracy**: The educational attainment data from LFS is based on a weighted estimation, therefore, accuracy is limited. Further, LFS data in indicated cells are of limited reliability (due to low sample size)**.** **Timeliness**: Data production is on a quarterly basis. **Accessibility**: Data use is restricted. For more information, contact the data owner. **Interpretation**: It is clear that educational attainment affects economic growth positively. People with higher levels of education are more productive and more creative, thereby contributing to (local) development. Further, they earn and consume more, enhancing the economy; they pay higher taxes and experience lower levels of unemployment, and as a result make less use of the social welfare system. Since they enjoy better health and well-being, they tend to use the healthcare system less frequently. Overall, raising levels of education in the population – in natives and foreigners alike – is desirable. **Coherence:** Data are internally coherent; comparisons with other sources are not applicable. Comparisons across countries/regions/municipalities for analytical purposes are recommended. **Further critical comments**: ***Challenge***: Not everyone registers; therefore, clearance of the general population register happens on a regular basis. Problems with education measurement are possible.

AT: Indicator 53: Student outbound mobility at tertiary level, by sex
Data collected/Definitions
Share of students participating in the international tertiary mobility/exchange study programmes as a share of all students enrolled in tertiary education in reporting country by sex (male/female)
Data availability and Collection process
Data are not available – only for Erasmus data. Indicator was not developed
Development process
-
Data use restriction, coverage and frequency of production
-
Testing
-

AT: Indicator 63: Skill-level of return migrants
Data collected/Definitions
Returning migrants are expats returning to the reporting country. ***Skills*** are approximated by education level (primary or lower, secondary, tertiary).
Data availability and Collection process
No data on return migration (especially, no stock data) is available in Austria. Indicator was not developed
Development process
-
Data use restriction, coverage and frequency of production
-
Testing

AT: Indicator 71: [SUBJ] [Average] Subjective well-being in the population

Data collected/Definitions

Subjective well-being (SWB) is often - though not exclusively - measured in terms of life satisfaction; namely it seeks an individual answer to the question: "All things considered, how satisfied are you with your life as a whole these days?"

Subjective well-being encompasses three distinct but complementary sub-dimensions: 1) *life satisfaction*, based on an overall cognitive assessment; 2**)** *affects*, or the presence of positive or negative feelings; and 3) *eudemonics*- the feeling that one's life has a purpose.

Life satisfaction considers how a person evaluates his or her life, where the term "life" reflects the person's existence as a whole. Therefore, the variable reflects the respondent's opinions and feelings with regard to his or her level of life satisfaction. In particular, it focuses on how a person is feeling "these days" rather than specifying a longer or shorter period. Thus, the intention is not to uncover the current emotional state of the respondent but rather to make a cognitive and affective evaluation of his or her life.

Data availability and Collection process

Variant 1) Data from SILC are available for the years 2013-2017 only at the national level.
SILC is carried out using stratified sampling (weighted estimation).
Variant 2) Data from YOUMIG small-scale survey are available only for 2018 at LAU2 level.
YOUMIG Survey was carried out online among university students

Development process

Variant 1) Indicator development: Data query from SILC. Using the following variables:

- Country of birth
- Overall, how satisfied are you with your life nowadays?

Variant 2) Indicator development: Data query from the YOUMIG survey dataset, using the following variables:

- Generally speaking, my life satisfaction living in Graz is Very high/High/Low/Very Low

Data use restriction, coverage and frequency of production

Variant 1) Data are public.
Data cover the members of surveyed households in the country.
SILC data are produced on a yearly basis.
Variant 2) Data are available but not for the public domain. For more information, contact the data owner.
Data cover only the respondent in the sample.
YOUMIG survey is repeatable when municipalities need it

Testing

Relevance: Subjective well-being indicators are closely related to the topics of social capital (including social norms, trust, and spirit of cooperation) and the quality of life (covering multiple dimensions of life including wealth, employment, physical and mental health, safety, freedom, among others). Even such a general measure as *satisfaction with life as a whole* can predict further migration behaviour since dissatisfied people on average migrate more often. When making a decision to migrate, people are influenced as much by their objective conditions as by their perceptions and opinions with regard to those conditions. Subjective well-being indicators are usually collected at national and regional level, in household surveys and specialised polls.

Accuracy:

- **Variant 1)** The subjective well-being data from SILC is based on weighted estimation, thus, accuracy is limited
- **Variant 2)** Due to coverage issues related to online sampling, valid statements based on the survey can be made only with reference to the respondents. Data should not be generalised. Thus, accuracy is limited
- **Timeliness**:
- **Variant 1)** Data production is on a yearly basis
- **Variant 2)** Data collection was carried out in autumn 2018. Final dataset is ready to be used. The YOUMIG survey can be repeated when municipalities need it

Accessibility:

- **Variant 1)** Data accessible upon request
- **Variant 2)** Data are available but not in the public domain. For more information, contact the data

owner

Interpretation: A high SWB indicator level suggests that life and living conditions are perceived favourably by individuals. An increase in the indicator not only signals an improvement in the individual situation, but also in the socio-economic and political environment(e.g., a high level of interpersonal trust in a society, and high living standards, among other factors). Modifications to the survey question allow the assessment of satisfaction levels (and thus, individuals' opinions) on specific life domains and issues, for instance, satisfaction with local services. The SWB indicators at national level, within the EU-27(or 15), can be used as an SWB benchmark in a municipality.

The SWB can be evaluated for different subgroups of a population. Life satisfaction for women is on average lower than that of men; the age-life satisfaction relationship is most often U-shaped; and nationals of post-communist states are on average less satisfied with life than populations of Western European countries. Immigrants are often less satisfied with life than local populations - especially in the first stage after their arrival - due to difficulties with integration, working in occupations that require lower skills than migrants actually possess, loneliness, and so on. Therefore, when drawing conclusions on the differences in SWB between locals and immigrants, it is recommended that data be disaggregated for immigrants by length of stay.

Coherence: Comparison across data sources is limited. Comparisons across countries/regions/municipalities – especially SILC data – for analytical purposes are recommended.

Further critical comments: -

AT: Indicator 73: [SUBJ] Tolerance towards foreigners (foreign workers)

Data collected/Definitions

Tolerance towards foreigners can be framed as tolerance, or attitudes towards migrants, or more specifically towards migrant workers**.**

Data availability and Collection process

Variant 1) Data from YOUMIG small-scale survey are available only for 2018 and only at LAU2 level.
YOUMIG Survey was carried out online among university students.
Variant 2) Data from Eurobarometer are available for the years 2014-2018 only at the national level. For information on data collection, see http://ec.europa.eu/COMMFrontOffice/publicopinion/index.cfm
Variant 3) Data from ESS are available for the years 2010, 2014, 2016, only at the national level. For information on data collection, see https://www.europeansocialsurvey.org/

Development process

Variant 1) Indicator development: Data query from the YOUMIG survey dataset, using the following variables:

- Newcomers in Graz are generally well integrated
- Graz offers opportunities for integration
- There are too many newcomers living in Graz
- Newcomers are an important part of society in Graz
- As a newcomer to Graz, one often experiences discrimination.
- The cohabitation of immigrants and Austrians in Graz has worsened over the last few years.
- In Graz, it is easy to make new acquaintances.
- It is easy to find important contact points (registration office, inscription for studies, labour office, etc.)
- In Graz it is easy to find your way around without German language skills
- Finding accommodation is no problem for people who moved to Graz

Variant 2) Data available: Consulting the following variables of Eurobarometer:
Please tell me whether each of the following statements evokes a positive or negative feeling:

- Immigration of people from other EU Member States
- Immigration of people from outside the EU

Variant 3) Data available: Data query from the ESS dataset, using the following variables:

- Would you say it is generally good or bad for [country]'s economy that people come to live here from other countries?
- Would you say that [country]'s cultural life is generally enriched or undermined by people coming to live here from other countries?
- Is [country] made a better or a worse place to live by people coming to live here from other countries?

Data use restriction, coverage and frequency of production

Variant 1) Data available, but not in the public domain. For more information, contact the data owner.
Data cover only the respondent in the sample.
YOUMIG survey is repeatable when municipalities need it
Variant 2) Data are public.
On data coverage, please consult Eurobarometer at
http://ec.europa.eu/COMMFrontOffice/publicopinion/index.cfm
data collection is usually every six months
Variant 3) Data are public.
On data coverage, please consult ESS at see https://www.europeansocialsurvey.org/

Testing

Relevance: Public opinion and attitudes towards migrants are high on the political agenda of many European countries. Increasing concerns about the integration of migrants in society might (among other concerns): boost support for parties of the "radical right" and diminish levels of interpersonal trust and collaboration. Further, such concerns might increase levels of hostility and potentially lead to acts of aggression towards migrants being condoned, increasing the chance of discrimination towards migrants in the labour market and everyday situations. This is a sensitive topic, and public opinion can be influenced/distorted by mass media.
Accuracy:

- **Variant 1)** Due to coverage issues related to online sampling, valid statements based on the survey can

be made only with reference to the respondents. Data should not be generalised. Thus, accuracy is limited

- **Variant 2)** Eurobarometer data should be considered accurate at the national level. For more details on the methodology and quality of Eurobarometer see http://ec.europa.eu/COMMFrontOffice/publicopinion/index.cfm
- **Variant 3)** European Social Survey data should be considered accurate at the national level. For more details on the methodology and quality of Eurobarometer see
- https://www.europeansocialsurvey.org/

Timeliness:

- **Variant 1)** Data collection was carried out in autumn 2018. Final dataset is ready to be used. The YOUMIG survey can be repeated when municipalities need it
- **Variant 2)** Data collection is carried out approximately every six months, for more details on updating Eurobarometer data, please consult
- http://ec.europa.eu/COMMFrontOffice/publicopinion/index.cfm
- **Variant 3)** Data collection is carried every two years, for more details on updating European Social Survey data, please consult
- https://www.europeansocialsurvey.org/

Accessibility:

- **Variant 1)** Data are available, but not in the public domain. For more information, contact the data owner
- **Variant 2)** Data accessible at http://ec.europa.eu/COMMFrontOffice/publicopinion/index.cfm
- **Variant 3)** Data accessible at https://www.europeansocialsurvey.org/

Interpretation: Low levels of trust towards migrants as a whole, or towards particular ethnic groups, not only negatively impacts the success of integration of the immigrant group, but also limit the opportunities of second-generation migrants (children of immigrants) in spheres such as education and the labour market. Discrimination can be based on visible characteristics such as differences in appearance and/or names. One of the possible consequences of discrimination is an outflow of immigrants from their host country, potentially associated with a loss of human capital, a weakened labour force, a lower income tax collection and similar negative consequences.

Conversely, high levels of trust towards migrants point to the readiness of a society to support the integration of migrants at the local level, the active introduction of migrants to the local community, as well as the wider population's support of national projects and directives promoting integration.

Coherence: Comparison across data sources is limited due to different time frames, and questions asked. Comparisons across countries/regions/municipalities – especially Eurobarometer and ESS data for analytical purposes are recommended.

Further critical comments: -

AT: Indicator 75: Intentions to migrate within next five years, [if possible] intended destination, duration of absence

Data collected/Definitions

Intention to migrate can be assessed with help of the following and similar questions:

- Do you intend to leave this country to go and live in another country? (Yes, No, Undecided)
- Do you have specific plans to leave or do you just have a general feeling that you would like to leave? (Specific plans, General feeling)

Where do you think you will go?

Data availability and Collection process

Data from YOUMIG small-scale survey are available only for 2018 and only at LAU2 level.
YOUMIG Survey was carried out online among university students

Development process

Indicator development: Data query from the YOUMIG survey dataset, using the following variables:

- I will live in Austria
- I will live in Graz
- I will work in Graz
- I will work in the suburban areas of Graz
- I will live in another city in Austria
- I will live in a rural municipality in Austria
- I will live in the place where I grew up
- I will live in a foreign country

Data use restriction, coverage and frequency of production

Data available, but not for the public domain. For more information, contact the data owner.
Data cover only the respondent in the sample.
YOUMIG survey is repeatable when municipalities need it.

Testing

Relevance: The Danube Region is an area with deep historical and economic relations between countries. With the fall of the communist regimes in Eastern Europe and the enlargement of the European Union, migration flows within the region have been intensifying. Up to 40% of all immigrants in each country come from other countries of the region. The migrant pool is becoming younger and more educated; youth in the region are a highly dynamic group accounting for more than half of incoming migrants. A decision to emigrate can impact both sending and receiving countries.

Accuracy: Due to coverage issues related to online sampling, valid statements based on the survey can be made only with reference to the respondents. Data should not be generalised. Thus, accuracy is limited.

Timeliness: Data collection was carried out in autumn 2018. Final dataset is ready to be used. The The YOUMIG survey can be repeated when municipalities need it.

Accessibility: Data are available, but not in the public domain. For more information, contact the data owner.

Interpretation: Although intentions to migrate are not always realised, increasing levels of youth migration may indicate that the social, economic and sometimes political conditions in the country of origin do not match the ambitions of young people, for instance, in terms of availability of jobs, low wages, and low satisfaction with local educational programmes.

To understand better which population subgroups are more likely to emigrate, additional information is needed. Those who report undertaking *active measures*, such as looking for a job abroad, and devising a *specific plan* are more likely to emigrate than those who simply consider this option a hypothetical. Intended *temporary migration* raises issues such as the reintegration of returnees, recognition of academic qualifications, the increasing number of transnational families, and (in the case of return in later stages of life) pension system sustainability.

Disaggregation by *educational level* helps to assess the risk of “brain drain” and the resultant loss of innovation. Information on work skills demanded by the labour market means that conclusions can be reached concerning: the (un)balancing effect of potential migration on both the skills’ mismatch and unemployment in the labour market; the perception of low pay for high-demand professions; the lack of options for youth with specific qualifications, etc.

Coherence: Comparisons across countries/regions/municipalities for analytical purposes are recommended.
Further critical comments: -

AT: Indicator 105: Regional product (Regional GDP) per capita

Data collected/Definitions

GDP per capita is based on purchasing power parity (PPP). PPP GDP is gross domestic product converted to international dollars using purchasing power parity rates. An international dollar has the same purchasing power in GDP terms as the U.S. dollar has in the United States. GDP at purchaser's prices is the sum of gross value added by all resident producers in the economy plus any product taxes and minus any subsidies not included in the value of the products. It is calculated without making deductions for depreciation on fabricated assets or for the depletion and degradation of natural resources. Data are in current international dollars are based on the 2011 ICP round.

Data availability and Collection process

Variant 1) World Bank Data are available for requested years at the national level.
For information on data collection, see
https://data.worldbank.org/indicator/NY.GDP.PCAP.PP.CD?end=2017&start=2010&year_high_desc=true
Variant 2) Statistik Austria National Accounts data for the years 2010-2015 at NUTS3, NUTS2 and national levels.

Development process

Variant 1) Data available:Consult data at
https://data.worldbank.org/indicator/NY.GDP.PCAP.PP.CD?end=2017&start=2010&year_high_desc=true
Variant 2) Data available: Request of indicator values directly from Statistik Austria

Data use restriction, coverage and frequency of production

Variant 1) Data are public.
Coverage is not interpretable in this case.
On the frequency of updating data, please consult
https://data.worldbank.org/indicator/NY.GDP.PCAP.PP.CD?end=2017&start=2010&year_high_desc=true
Variant 2) Data are public
Coverage is not interpretable in this case.

Testing

Relevance: National GDP per capita (or its regional counterpart) reflects the living standards in the respective geographic area. High GDP per capita is usually associated with strong economies, booming production, and developed social services. GDP gives an approximation of economic activity, when perceived as low it may serve as a push factor stimulating out-migration, while serving as a pull factor and stimulating in-migration in the opposite case.

Accuracy:

- **Variant 1)** World Bank data should be considered accurate at the national level. For more details on the methodology and quality of World Bankdata see https://data.worldbank.org/indicator/NY.GDP.PCAP.PP.CD?end=2017&start=2010&year_high_desc=true
- **Variant 2)** National accounts data from Statistik Austria, inputs as well as the output database, are examined by the quality management system of the Statistik Austria. As a result, the dataset is considered to be accurate.

Timeliness:

- **Variant 1)** Data production is based on the data production system of national statistical institutes. For more details on updating World Bank data, please consult https://data.worldbank.org/indicator/NY.GDP.PCAP.PP.CD?end=2017&start=2010&year_high_desc=true
- **Variant 2)** Data for each year are updated in December of the following year. After that, data can be accessed and used by decision-makers.

Accessibility:

- **Variant 1)** Data accessible at https://data.worldbank.org/indicator/NY.GDP.PCAP.PP.CD?end=2017&start=2010&year_high_desc=true
- **Variant 2)** Data accessible upon request

Interpretation: *On average, countries with higher GDP per capita experience higher rates of net migration per 1000 population*, namely the difference between incoming and leaving flows of migrants is positive, and the rate of this difference relative to the population number is higher in countries with a higher GDP.
GDP figures, however, need to be interpreted in comparison to those of neighbouring, or other reference countries. A country with a relatively high GDP per capita and high GDP growth rates, is more likely to be perceived as a country with a strong economy and good economic prospects, and thus act as a magnet for immigrants.
The indicator assumes an equal division of GDP figures in the population, in other words, inequality of income and wealth distribution across population groups is not accounted for. High GDP figures do not always coincide with high levels of subjectively perceived living standards, and SWB indicators and trust should supplement the analysis.
Coherence: National level data can be compared across data sources. Unsurprisingly, theWorld Bank uses data from national statistical offices; thus, data are similar.
Further critical comments: -

AT: Indicator 107: Business demography: number of active enterprises; by size, ownership (local/foreign owned)
Data collected/Definitions
Business demography, taking into consideration aspects such as the total number of active enterprises in the business economy, their birth and death rates. The number of active enterprises (in the business economy) is an important indicator. An active enterprise is one that had either turnover (totals invoiced by the unit) or employment at any time during the reference period.
Data availability and Collection process
Total data are available for the years 2010-2016 at national, NUTS2 (Styria) and LAU2 (Graz) levels. Data by size are only available at the national level. Data disaggregated by ownership are not available.
Development process
Indicator development: Data query from Statistik Austria http://www.statistik.at/web_de/statistiken/wirtschaft/unternehmen_arbeitsstaetten/unternehmensdemografie_ab_2015/index.html
Data use restriction, coverage and frequency of production
Data are available, but not in the public domain. For more information, contact the data owner. Data cover the enterprises active in the national territory of Austria.
Testing
Relevance: The indicators of business demography by analogy to human demographic processes reflect the total number of active enterprises in the business economy, their birth and death rates; in other words, they describe the population size of firms, and the share of firms created and closed each year. Information on the number of employees and the types of legal organisation and industry is collected. The figures help in analysing the propensity to start a new business, and the contribution of newly opened firms to job creation. **Accuracy**: Data are considered accurate. **Timeliness**: Data updating is continuous **Accessibility**: Data available, but not in the public domain. For more information, contact the data owner. **Interpretation**: Disaggregation by *industry* helps to assess which sectors of the economy are growing or contracting, and which specific skills in the labour force are in demand or will become redundant. Information on the *size* of the business and the *nationality* of the owner can be used to address the discussion on ethnic entrepreneurship. In some cases, entrepreneurship becomes a major route for labour market integration of migrants; thus, any analysis should be joined by a discussion on immigrant discrimination, recognition of formal qualifications, and measures to promote local language proficiency. **Coherence**: Data are internally coherent; comparisons with other sources are not applicable. Comparisons across countries/regions/municipalities for analytical purposes are recommended **Further critical comments**: -

AT: Indicator 123: Disposable household income per capita
Data collected/Definitions
Disposable household income refers to the amount of money that households have available for spending or saving after income distribution measures have taken effect; the latter comprising payment of taxes, social contributions, and social benefits received. Per capita refers to the disposable household income per person/inhabitant of the area.
Data availability and Collection process
Data from SILC are available for the years 2010-2016 at NUTS2 and national levels. SILC is carried out using stratified sampling that is representative at the NUTS2 and national levels (weighted estimation).
Development process
Indicator development: Data query from SILC. Using the following variables: • household incomes • number of household members
Data use restriction, coverage and frequency of production
Data are fully restricted. For more information, contact the data owner. Data cover the members of surveyed households in the municipality/region/country. SILC data are produced on a yearly basis.
Testing
Relevance: Disposable household income refers to the amount of money that households have available for spending or saving after income distribution measures have taken effect. Thus, the measure reflects individual/family living standards. In the majority of countries under consideration, wages and salaries are the main component of household incomes. Higher living standards can be a factor that dissuades individuals and families from out-migration and emigration, as well as a pull factor stimulating both the in-migration of foreign nationals and the return home of emigrants. **Accuracy**: Data from SILC: Since indicator values are based on weighted estimation, accuracy is limited. **Timeliness**: Data production is on a yearly basis. **Accessibility**: Data are available, but not in the public domain. For more information, contact the data owner. **Interpretation**: Indicator figures should be considered relative to a measure of the living standards in the society/municipality. Disposable household income can be compared to national/regional poverty thresholds, which can in turn be used to determine whether a household belongs to a poor population stratum. Poverty is one of the conditions that prevent individuals from living healthy and fulfilling life and being socially included within a society. In recession conditions**,** *women* and *youth (including children),* and *populations with a migratory background*, are likely to be more vulnerable to poverty. Poverty may also stimulate household indebtedness, which despite stimulating household consumption in the short run, leads in the case of long-term debt, to negative consequences for the economy and GDP growth. The lower the disposable household income in the population, relative to that of neighbouring countries, the higher the rate of emigration (or temporary out-migration) as a coping mechanism, often resulting in divided families and children left behind. **Coherence**: Comparisons across countries/regions/municipalities for analytical purposes are recommended. **Further critical comments**: Short Description: The disposable income of private households consists of the balance of primary income (operating surplus/mixed income, plus compensation of employees, plus property income received, minus property income paid) and the redistribution of income in cash. These transactions comprise social contributions paid, social benefits in cash received, current taxes on income and wealth paid, as well as other current transfers. Disposable income does not include social transfers in kind coming from public administrations or non-profit institutions serving households.

AT: Indicator 137: Population, by activity status, by sex, 5 year intervals, national/foreign
Data collected/Definitions
In the labour market, the population aged 15 years and above (typically 15-64 y.o.) is divided into the economically active and inactive. The former group includes the employed (civilian employment plus the armed forces) and the latter, the unemployed. The current, economically active population is called the labour force. The indicator is calculated as a percentage of active and inactive people respectively. Therefore, the number of active people is divided by the total population of ages 15-64.
Data availability and Collection process
Data from Statistik Austria LFS and Microcensus are available for the requested years. Data disaggregated by age, activity status and citizenship (national/foreign) are only available at national and NUTS2 (Styria) levels. LFS is carried out using stratified sampling that is representative at the national level (weighted estimation).
Development process
Data available: Data query from the LFS and Microcensus database.
Data use restriction, coverage and frequency of production
Data available, but not in the public domain. For more information, contact the data owner. Data cover the members of surveyed households in the municipality/region/country. LFS data are produced on a quarterly basis.
Testing
Relevance: The economically inactive population includes schoolchildren, students, pensioners, and housewives or husbands (provided that they are neither working nor available for work); some of these groups may be of working-age. In the case of youth, the NEET part of the population (young people in neither employment,nor education or training) warrant special attention due to the obvious loss of human capital and productivity. The economically active part of the population serves as an approximation of the labour supply in a country/region/municipality; the labour force being that part of the population involved in the production and distribution of goods and services, or actively searching for employment. **Accuracy**: Data from LFS are based on a weighted estimation, thus, accuracy is limited. **Timeliness**: Data production is on a quarterly basis. **Accessibility**: Data available, but not in the public domain. For more information, contact the data owner. **Interpretation**: Disaggregation by the *country of citizenship*, and in addition by *sex*, allows the behaviour of the native and foreign population to be compared (e.g., providing data on whether native and foreign women have the same opportunities and motivations to work in the labour market). A growing share of economic activity in the working age population may indicate a shrinking labour force, leading to slower economic development and productivity losses, a higher burden on social services and diminished income tax revenue collection. Separate estimations by *age group* can help identify age groups with a low activity share, in other words, those disproportionally affected by labour market segmentation. Where the disadvantaged group consists of youth, measures leading to the acquisition of skills demanded by the labour market, and the facilitation of the transition from study to work should be undertaken. **Coherence:** Comparisons across countries/regions/municipalities for analytical purposes are recommended. **Further critical comments**: -

AT: Indicator 180: Workforce in healthcare/Shortage of work in healthcare/Healthcare workforce gap
Data collected/Definitions
Health workers are "all people engaged in actions whose primary intention is to enhance health".
Data availability and Collection process
Data from Eurostat database are available only for the years 2010-2015 (and in one case until 2016). Data available atthe national level and NUTS2 levels Eurostat prepares estimations based on input data provided by national statistical institutes.
Development process
Data available: accessible in Eurostat database (please consult https://ec.europa.eu/eurostat/data/database)
Data use restriction, coverage and frequency of production
Data available: accessible in Eurostat database (please consult https://ec.europa.eu/eurostat/data/database)
Testing
Relevance: Indicators of healthcare provision are linked to a region's level of urban development and attractiveness since they directly affect the quality of life at the local level (and serve as a pull factor attracting migrants while providing reasons for the native population to remain). Moreover, gaps in health care provision and accompanying migration schemes stimulate the in-migration of healthcare and medical professionals; this serves as a huge pull factor directing relevant migration flows into more economically stable and wealthier countries of the region. For sending countries, gaps in the relevant segments of the labour market appear, while the attractiveness of the receiving areas is further established. **Accuracy**: Data published by Eurostat are based on register-based input data sent by Statistik Austria, corrected and examined by Eurostat quality management system. For more details, please consult the Eurostat database. **Timeliness**: On the frequency of updating Eurostat data, please consult the Eurostat database. **Accessibility**: Data accessible in the Eurostat database https://ec.europa.eu/eurostat/data/database) **Interpretation**: An increasing number of doctors per 100,000 (or per 1,000) inhabitants is associated with an increasing quality of life in a municipality/region, in addition to higher health care coverage for the population. **Coherence**: Comparisons across countries/regions/municipalities for analytical purposes are recommended. **Further critical comments**: -

3.2. Bulgaria

Elaboration: IOS & LP

Based on texts prepared by the National Statistical Institute of the Republic of Bulgaria

Version: revised version, December 2018

Set of new indicators

No	Indicator	type
1	Population; by sex, age, country of citizenship (CoC)	core
7	In-migration, internal/international	core
11	Top-5 sending countries	core
12	Out-migration, internal/international	core
14	Number of returnees registered, sex, education level	core
51	Completed education of persons aged 15-34, by sex, age groups, country of citizenship (native/foreign)	core
53	Student outbound mobility ratio at tertiary level; by sex	core
63	Skill-level of return migrants	core
71	Subjective well-being [in the population]	core
73	Tolerance towards foreigners (foreign workers)	core
75	Intentions to migrate within next five years, [if possible] intended destination, duration of absence	core
105	Regional GDP per capita (NUTS3), GDP per capita	core
107	Business demography: number of active enterprises; by size (number of employees), ownership (local/foreign owned)	core
123	Disposable household income per capita	core
137	Population, by activity status; by age (5-y. intervals), national-foreign	core
180	Workforce in healthcare/Shortage of work in healthcare/Healthcare workforce gap	core
74	Aspirations of youth	extra
129	Debt-to-income ratio/ Household indebtedness/ Capacity to meet debt obligations	extra
159	Over-qualification rate; by natives/foreigners	extra
202	Average/Median cost of rent, in euro and as a share of average/median household income	extra

BG: Indicator 1: Population; by sex, age, urban/rural, country of citizenship (CoC)
Data collected/Definitions
Population as of 31 December (stock): based on the concept of the usual resident population, namely the number of inhabitants of a given area as of 31 December of the reference year.
Data availability and Collection process
Population data are available at the National Statistical Institute (NSI) from 2011 onwards at national, NUTS3 (Burgas district) and LAU2 (Burgas) levels Stock data, disaggregated by sex and age groups (0-14, 15-24, 25-34, 35-64, 65+) for top-5 migrant groups residing in Bulgaria are available at all three levels. Flow data disaggregation is unavailable.
Development process
Data are available on BNSI web page http://www.nsi.bg/en/content/6703/population Request of indicator values directly from the Information System "Demography" at NSI, official variant of information at the national and regional level (NUTS and LAU)
Data use restriction, coverage and frequency of production
The data are public. Data are exhaustive and cover the resident population. Data for 2018 will be available at the end of April 2019.
Testing
Relevance: Basic demographic data (resident population by age, sex and citizenship) from a time perspective is of crucial importance in countries/municipalities characterised by immigration, emigration or return migration in order to identify trends in population change as much as specific challenges and opportunities emerging in labour markets and social welfare systems at the local and national level. Further, data is relevant from the perspective of education, the sustainability of social security systems or the planning of projects etc. **Accuracy**: The dataset is considered to be accurate. **Timeliness**: Data are produced on a yearly basis and published at the end of April of the following year. **Accessibility**: Data accessible upon request **Interpretation:** The *age composition* of the population is necessary to determine the dependency ratio, which provides insights into the amount of people of nonworking age (aged 0-14 or 65+) compared to the number of those of working age (aged 15-64). As such, the population indicator is an important tool, as along with the calculation of the dependency ratio, it aids discussion about the sustainability of the social security system. Aging is one of the most important challenges that most Danube region countries face. Education policies should take into account the share of the young (15-34) and under age population (0-14), while information on the active age population is necessary to formulate labour market policies. Further, age composition also affects natality, mortality and marriage. *Sex composition* is important for planning healthcare and social provisions related to childbearing and for policies targeting gender equality. *Composition by citizenship* reflects the presence of immigration and as such, it might indicate the need for socio-economic and labour market integration policies as well as efforts to strengthen social cohesion. **Coherence**: Data are internally coherent; comparisons with other Variants are not applicable. Comparisons across countries/regions/municipalities for analytical purposes are recommended. **Further critical comments**: -

BG: Indicator 7: In-migration, internal/international
Data collected/Definitions
International migration: annual migration flows, namely the number of persons establishing their usual residence in the territory of a country for a period that is, or is expected to be, at least 12 months, having previously been usual resident in another country. Internal immigration is the movement of people from one defined area to another within a country**.**
Data availability and Collection process
Data are available at the National Statistic Office, Information System "Demography", from 2007 onwards for National, NUTS3 and LAU2 level for international and internal immigration.
Development process
Request indicator values directly from the NSI, information system "Demography" at NSI, official variant of information at the national and regional level (NUTS3 and LAU2).
Data use restriction, coverage and frequency of production
The data are public.
Testing
Relevance: Immigration flow data – both internal and international – are mainly relevant in countries/municipalities characterised predominantly by immigration. Beyond natality and mortality, migration flows determine the size of a population, thus their changes over time constitute a crucial element in planning policies related to the population, including economic and labour market policies, education, healthcare and social provisions. Further, where immigration is present, social cohesion and integration policies might be needed. **Accuracy**: The dataset is considered to be accurate. **Timeliness**: Data are produced on a yearly basis. **Accessibility**: Data accessible upon request **Interpretation**: Immigration flow data indicate the attractiveness of the municipality/region/country for the inhabitants of the same or other countries. Growing immigration can be a sign that the area is perceived by potential immigrants as a relatively developed and prosperous destination characterised by higher wages and better living conditions. In contrast, a low level or lack of international and/or internal immigration, from viewpoint of potential immigrants, might point to the relative underdevelopment of an area. In economies characterised by an aging population and high levels of labour demand, immigration is usually seen as an advantageous phenomenon. The immigration of highly educated and/or skilled workers is often interpreted as a "brain gain", and is considered highly beneficial for the economies of receiving countries. **Coherence**: Data are internally coherent; comparisons with other variants are not applicable. Comparisons across countries/regions/municipalities for analytical purposes is recommended. **Further critical comments**: -

BG: Indicator 11: Top-5 sending countries
Data collected/Definitions
TOP- 5 origin countries of international immigrants using flow data (for a definition see indicator 7) and stock (for a definition see indicator 1) and based on the concept of country of birth or country of citizenship.
Data availability and Collection process
Data are available at the National Statistic Office, Information System "Demography", starting for Flows from 2007 onwards. For flows, the concept country of previous usual residence is used. Data is available since 2010. For stocks, concept of country of birth is used; data are available (since 2012).
Development process
Request indicator values directly from the NSI, Information System "Demography" at NSI, official variant of information at the national end regional level (NUTS and LAU)
Data use restriction, coverage and frequency of production
The data are public
Testing
Relevance: Sending countries are mainly relevant in countries/municipalities characterised predominantly by immigration. Knowledge on the origin of migrants is needed to create well-targeted cultural and integration policies. **Accuracy**: The dataset is considered to be accurate. **Timeliness**: Both stock and flow data are produced on a yearly basis. **Accessibility**: Data accessible upon request **Interpretation**: Knowledge of the origin and size of the largest immigrant communities and diasporas of foreign citizens in a municipality/region/country - based on the number of arrivals per year or number of residents from a given sending country - is indispensable for decision makers preparing policy measures directed at strengthening social cohesion and enhancing the social and labour market integration of immigrants. Changes over time in the most important diasporas - approximated by groups of different migration backgrounds – can signal which immigrant groups will require prioritisation in local development strategies, as much as define relationships at policy level with sending countries, thereby enhancing transnational, economic and social ties. **Coherence**: Data are internally coherent; comparisons with other variants are not applicable. Comparisons across countries/regions/municipalities for analytical purposes is recommended **Further critical comments**: -

BG: Indicator 12: Out-migration, internal/international
Data collected/Definitions
International emigration: annual migration flows, namely the number of persons establishing their usual residence in the territory of a country for a period that is, or is expected to be, at least 12 months, having previously been usual resident in another country. Internal emigration is the movement of people from one defined area to another within a country**.**
Data availability and Collection process
Data are available at the NSI, IS Demography at NSI, official variant of information at the national and regional level (NUTS and LAU).
Development process
Estimates (based on the NSI sample survey on trips of Bulgarians abroad and visitors to Bulgaria) are established by the production of breakdowns of emigrants by destination countries.
Data use restriction, coverage and frequency of production
The data are public. Data are based on administrative data variants, and do not cover the whole population concerned.
Testing
Relevance: Emigration flow data – both internal and international – are mainly relevant in countries/municipalities characterised by emigration and return migration. Beyond natality and mortality, migration flows determine the size of a population, thus their changes over time constitute a crucial element in planning policies related to the population, including economic and labour market policies, education, healthcare and social provisions. Where emigration is a common life strategy for a population, and especially for youth, challenges related to an increasingly aging society in the Danube region are set to emerge, such as the deteriorating sustainability of the social welfare system, and growing unmet labour demand. **Accuracy**: Data are considered to be accurate. **Timeliness**: Data are produced on a yearly basis **Accessibility**: Data are accessible online. **Interpretation**: Emigration flow data indicate the potential of the municipality/region/country for maintaining its population. Growing emigration can suggest that the area is perceived by (potential) emigrants as a relatively underdeveloped and less prosperous area characterised by lower wages and worse living conditions. In economies characterised by an aging population and high levels of labour demand, emigration is seen as a serious challenge threatening the sustainability of the whole economy and society. However, beyond population loss and “brain drain”, outmigration can also bring benefits to origin countries: emigrants often send considerable amounts in remittances; some make investments back home, while others return bringing new skills and know-how. Relationships with strong diasporas in destinations are potentially beneficial and offer opportunities to enhance transnational businesses, etc. **Coherence**: Data are internally coherent; comparisons with other Variants are not applicable. Comparisons across countries/regions/municipalities for analytical purposes is recommended **Further critical comments**: Data are based on administrative data variants and do not cover the whole population concerned. Estimates (based on the NSI sample survey on trips of Bulgarians abroad and visitors to Bulgaria) are made by producing a breakdown of emigrants by destination countries.

BG: Indicator 14: Number of returnees registered, sex, education level
Data collected/Definitions
Number of residents, born in reporting country, immigrated from abroad (after a short or long term stay in another country), by sex (male/female) and educational attainment
Data availability and Collection process
Variant 1) Data are available at NSI from 2011 onwards. Data owner is NSI. Disaggregation by sex is available. Disaggregation by educational level is not available. **Variant 2)**Data from Eurostat database is available only for the years 2012-2016 at the national level. Disaggregation is only available by sex at the national level, not available by educational attainment at any levels.
Development process
Request data directly from the IS Demography at NSI, official variant of information at the national and regional level (NUTS and LAU).
Data use restriction, coverage and frequency of production
The data are public
Testing
Relevance: Data on the flow of return migrants are mainly relevant in countries/municipalities characterised by return migration and emigration. While in several aspects the relevance of return migration flows is similar to that of immigration flows, there are also some striking differences: return migration can soften the challenges posed by outmigration and reduce population losses due to emigration; however, their integration appears less challenging for local and national governments than that of foreign citizens. **Accuracy**: • **Variant 1)** Data are considered accurate. • **Variant 2)** For more details on limitations of the data, please consult the Eurostat database. **Timeliness**: • **Variant 1)** Data are produced yearly. • **Variant 2)** Data are produced yearly (since 2011). For more details, please consult the Eurostat database. **Accessibility**: Data are accessible upon request. **Interpretation**: Return migration, especially of the skilled and highly educated, is seen as one of the most beneficial forms of migration. It is usually interpreted as a *triple win solution* in which both sending and destination countries, as well as the migrants themselves profit from the experience: 1) migrants earn higher wages and acquire marketable skills largely unavailable in their origin countries; 2) destination countries in need of migrant labour can benefit from the immigration of foreign workers without the costs of integration policies; 3) origin countries can gain from receiving remittances, while return migration reduces the costs of losing any further population. Returners might also bring home financial, human and social capital that can be used productively in origin countries. Outmigration and return migration of a person that occurs repeatedly is referred to as re-migration, circular migration, etc; and in the case of skilled workers, “brain circulation” is often mentioned. This circularity of migrants is commonly thought to be the most beneficial and desirable form of migration. **Coherence:** The two variants can be contrasted with each other; however, comparisons are limited due to low availability in terms of disaggregation, geographical level or time. Data can be compared to the Eurostat data on total immigration flows. The NSI data account for about 96-99% of the levels reported by Eurostat. **Further critical comments**: -

BG: Indicator 51: Completed education of persons aged 15-34, by sex, age groups, country of citizenship (native/foreign)
Data collected/Definitions
Educational attainment of the native and foreign resident population aged 15-34: 1) Low education: Less than primary, primary and lower secondary education (ISCED 2011 levels 0-2); 2) Medium education: Upper secondary and post-secondary non-tertiary education (ISCED 2011 levels 3 and 4); 3)High education: Tertiary education (ISCED 2011 levels 5-8)
Data availability and Collection process
Variant 1: Data are available in the 2011 census at NUTS and LAU level. **Variant 2:** Data are available at LFS at national level. Data owner is NSI. The data by country of citizenship are unpublished due to the sample nature of the survey; the number of foreigners is very small.
Development process
Variant 1: Census: Disaggregation by educational levels is available only for the census year 2011. **Variant 2:** LFS (NUTS2).
Data use restriction, coverage and frequency of production
Variant 1: The data are public. **Variant 2:**The data at the national level are public.
Testing
Relevance: The educational attainment of the population is relevant in countries characterised by immigration, emigration and return migration. People possessing a higher education are more productive at work, and their earning potential, life expectancy and general health tend to be better. Further, their life satisfaction is higher than those who are less skilled. Thus, while high levels of educational attainment in the population positively affect the wider economy, the health system, as well as individual and psychosocial characteristics beyond economic and labour-related outcomes also benefits. **Accuracy**: Data are considered accurate. **Timeliness**: Data are only available for the census year 2011. **Accessibility**: Data are accessible upon request. **Interpretation**: It is clear that educational attainment affects economic growth positively. People with higher levels of education are more productive and more creative, thereby contributing to (local) development. Further, they earn and consume more, enhancing the economy. They pay higher taxes and experience lower levels of unemployment, thereby making less use of the social welfare system. Since they enjoy better health and well-being, they tend to use the healthcare system less frequently. Overall, raising levels of education in the population – in natives and foreigners alike – is desirable. **Coherence:** There can be no statement about coherence since only data from 2011 exist. **Further critical comments**: -

BG: Indicator 53: Student outbound mobility at tertiary level, by sex
Data collected/Definitions
Number of students from a given country studying abroad, expressed as a percentage of the total tertiary enrolment in that country - total and by sex (male/female).
Data availability and Collection process
Source: UIS, Eurostat. For 2010 - 2012, no aggregation by sex is available. From 2013 onwards, data are available by sex at the national level.
Data use restriction, coverage and frequency of production
The data are public
Testing
Relevance: Student migration is a common form of moving abroad among young people, thus it is relevant for the whole Danube Region, and in countries characterised by immigration, emigration or return migration. Temporal stays abroad with the aim of studying (e.g., 1-2 semesters, or full educational programmes) are beneficial for sending communities, however, students might decide to remain in destinations and use their newly obtained skills and knowledge there, instead of returning home. **Accuracy**: Data are considered accurate. **Timeliness**: Data are produced yearly. **Accessibility**: Data accessible upon request **Interpretation**: Students might decide to study abroad with the expectation of learning new languages, profiting from better educational opportunities and job offers, and creating international social networks that might be useful in their professional life. Study abroad is usually highly valued in the home country. However, attracting well-educated young professionals back to their sending communities is often not an easy task, when their newly obtained knowledge can be put to better use in destinations that generally offer higher wages, higher living standards and jobs better suited to the aspirations of young professionals. **Coherence**: Data are internally coherent; comparisons with other variants are not applicable. Comparisons across countries/regions/municipalities for analytical purposes are recommended. **Further critical comments**: Data are partially available through theUNESCO-OECD-Eurostat (UOE) data collection. Each participating country in the data collection should provide information on inbound mobile students by gender and country of origin. On this basis, information on the outbound students per each country is estimated and disseminated. Currently, not all countries are able to provide the requested data; therefore, the information is not explicitly available.

BG: Indicator 63: Skill-level of return migrants
Data collected/Definitions
Stock of return migrants are the expats returning to the reporting country. The skills are approximated by education level (primary or lower, secondary, tertiary) (see also indicator 14 and 51).
Data availability and Collection process
Data are available in the YOUMIG Small Scale Survey as of the end of 2018.
Development process
Variant: Small-scale survey based on a self-enumerating questionnaire. *Questionnaire items:* Sex, Year of Birth, Country of Birth, Have you ever lived outside [country] continuously for at least 1 year? What is your level of school or university education? Data could be used for production of estimates for the whole population concerned (return migrants). The dataset will provide exact data for the indicator.
Data use restriction, coverage and frequency of production
Due to the representative nature of the survey and the small number of respondents, the results are of low reliability. Data covers only the respondent in the sample. Data are accessible only for YOUMIG-partners.
Testing
Relevance: Data on the stock of return migrants are mainly relevant in countries/municipalities characterised by return migration and emigration. While in several aspects the relevance of the numbers of returners is similar to that of immigrants, there are also some striking differences: return migration can also soften the challenges posed by outmigration and reduce population losses due to emigration; however, their integration appears less challenging for local and national governments than that of foreign citizens. **Accuracy**: Due to coverage issues related to quota sampling, valid statements based on the survey can be made only with reference to the respondents. Data should not be generalised. Thus, accuracy is limited. **Timeliness**: Data collection was carried out in autumn 2018 **Accessibility**: Data are accessible upon request. **Interpretation**: Return migration, especially of the skilled and highly educated, is seen as one of the most beneficial forms of migration. It is usually interpreted as a *triple win solution* in which both sending and destination countries, as well as the migrants themselves profit from the experience: 1) migrants earn higher wages and acquire marketable skills largely unavailable in their origin countries; 2) destination countries in need of migrant labour can benefit from the immigration of foreign workers without the costs of integration policies; 3) origin countries can gain from receiving remittances, while return migration reduces the costs of losing any further population. Returners might also bring home financial, human and social capital that can be used productively in origin countries. **Coherence:** Comparisons across countries/regions/municipalities for analytical purposes are recommended. **Further critical comments**:

BG: Indicator 71: [SUBJ] [Average] Subjective well-being in the population

Data collected/Definitions

Subjective well-being (SWB)is often - though not exclusively - measured in terms of life satisfaction; namely it seeks an individual answer to the question: "All things considered, how satisfied are you with your life as a whole these days?"

Subjective well-being encompasses three distinct but complementary sub-dimensions: 1) *life satisfaction*, based on an overall cognitive assessment; 2) *affects*, or the presence of positive or negative feelings; and 3) *eudemonics*- the feeling that one's life has a purpose.

Life satisfaction considers how a person evaluates his or her life, where the term "life" reflects the person's existence as a whole. Therefore, the variable reflects the respondent's opinions and feelings with regard to his or her level of life satisfaction. In particular, it focuses on how a person is feeling "these days" rather than specifying a longer or shorter period. Thus, the intention is not to uncover the current emotional state of the respondent but rather to make a cognitive and affective evaluation of his or her life.

Data availability and Collection process

Variant 1: Data are available at SSS as of the end of 2018.

Variant 2: Data from EU-SILC are available at National level; no additional agreement needed. Data owner is National Statistical Institute and information can be provided for 2013. Next round of data collection – 2018. Frequency: according to the frequency of implementation of the module on life satisfaction in EU-SILC. Life satisfaction is based on an overall personal cognitive assessment.

Development process

Variant 1: Small scale survey. Items in the Questionnaire are based on questions taken from EU-SILC.

- Overall, how satisfied are you with your life nowadays?
- Overall, how satisfied are you with the financial situation of your household?
- Overall, how satisfied are you with your accommodation?
- Overall, how satisfied are you with your personal relationships?

(10-point scale; 0 = totally unsatisfied, 10 = very satisfied).

Variant 2: EU-SILC

Relevant variables in the dataset.

- Perception and satisfaction with different life aspects
- PW010T: Overall life satisfaction (EU-SILC)
- PW240T: Perceived social exclusion (EU-SILC)
- PW030T: Satisfaction with financial situation (EU-SILC)
- PW160T: Satisfaction with personal relationships (EU-SILC)
- PW120T: Satisfaction with time use (amount of leisure time) (EU-SILC)

(10-point scale; 0 = totally unsatisfied, 10 = very satisfied).

Age: possible to disentangle for the group 16-34 (EU-SILC)

Data use restriction, coverage and frequency of production

Variant 1: Due to the representative nature of the survey, results for foreign-borns are of low reliability.

Variant 2: The data are public at the National level

There is a sampling error. The indicator is based on private households and (Bulgarian) institutional households are excluded from the sample.

Persons aged up to 15 are not included in the survey.

Only data for the total population.

Testing

Relevance: Subjective well-being indicators are closely related to the topics of social capital (including social norms, trust, and spirit of cooperation) and the quality of life (covering multiple dimensions of life including wealth, employment, physical and mental health, safety, freedom, among others). Even such a general measure as *satisfaction with life as a whole* can predict further migration behaviour since dissatisfied people on average migrate more often. When making a decision to migrate, people are influenced as much by their objective conditions as by their perceptions and opinions with regard to those conditions. Subjective well-being indicators are usually collected at national and regional level, in household surveys and specialised polls.

Accuracy:

- **Variant 1)** Due to the coverage issues related to quota sampling, valid statements based on the survey can be made only with reference to the respondents. Data should not be generalised. Thus, accuracy is limited.
- **Variant 2)** Data are considered accurate at a national level.

Timeliness:

- **Variant 1)** Data collection was carried out in Fall 2018
- **Variant 2)** Data are only available for 2013.

Accessibility: Data accessible upon request

Interpretation: A high SWB indicator level suggests that life and living conditions are perceived favourably by individuals. An increase in the indicator not only signals an improvement in the individual situation, but also in the socio-economic and political environment (e.g., a high level of interpersonal trust in a society, and high living standards, among other factors). Modifications to the survey question allow the assessment of satisfaction levels (and thus, individuals' opinions) on specific life domains and issues, for instance, satisfaction with local services. The SWB indicators at national level, within the EU-27(or 15), can be used as an SWB benchmark in a municipality.

The SWB can be evaluated for different subgroups of a population. Life satisfaction for women is on average lower than that of men; the age-life satisfaction relationship is most often U-shaped; and nationals of post-communist states are on average less satisfied with life than populations of Western European countries. Immigrants are often less satisfied with life than local populations - especially in the first stage after their arrival - due to difficulties with integration, working in occupations that require lower skills than migrants actually possess, loneliness, and so on. Thus, when drawing conclusions on the differences in SWB between locals and immigrants, it is recommended that data be disaggregated for immigrants by length of stay.

Coherence: Data are internally coherent, comparisons with other variants are not applicable. Comparisons across countries/regions/municipalities for analytical purposes are recommended.

Further critical comments: -.

BG: Indicator 73: [SUBJ] Tolerance towards foreigners (foreign workers)

Data collected/Definitions

Tolerance towards foreigners can be framed as tolerance, or attitudes towards migrants, or more specifically towards migrant workers

Data availability and Collection process

Variant 1) Data from YOUMIG small-scale survey is available only for 2018 and only at LAU2 level.
Variant 2) Data from Eurobarometer is available for the years 2014-2018 only at the national level. For information on data collection, see http://ec.europa.eu/COMMFrontOffice/publicopinion/index.cfm
Variant 3) Data from ESS is available for the years 2010, 2012, 2014, 2016, only at the national level. For information on data collection, see https://www.europeansocialsurvey.org/

Development process

Variant 1) Indicator development. Data query from the YOUMIG survey dataset, using the following variables:

- Immigrants take jobs away from natives in the country
- A country's cultural life is undermined by immigrants
- Immigrants make crime problems worse
- Immigrants are a strain on a country's welfare system
- In the future the proportion of immigrants will become a threat to society
- For the greater good of society, it is better for immigrants to maintain their distinct customs and traditions
- Russians take jobs away from natives in the country
- A country's cultural life is undermined by the Russians
- Russians make crime problems worse
- Russians are a strain on a country's welfare system
- In the future the proportion of Russians will become a threat to society
- For the greater good of society, it is better for Russians to maintain their distinct customs and traditions

Variant 2) Data available. Consulting the following variables of Eurobarometer:
Please tell me whether each of the following statements evokes a positive or negative feeling.

- Immigration of people from other EU Member States
- Immigration of people from outside the EU

Variant 3) Data available: Data query from the ESS dataset, using the following variables:

- Would you say it is generally good or bad for [country]'s economy that people come to live here from other countries?
- Would you say that [country]'s cultural life is generally enriched or undermined by people coming to live here from other countries?
- Is [country] made a better or a worse place to live by people coming to live here from other countries?

Data use restriction, coverage and frequency of production

Variant 1) Data are public. Data covers only the respondent in the sample.
Variant 2) Data are public. Re data coverage, please consult Eurobarometer at
http://ec.europa.eu/COMMFrontOffice/publicopinion/index.cfmdata collection is usually every six months
Variant 3) Data are public. Re data coverage, please consult ESS at https://www.europeansocialsurvey.org/

Testing

Relevance: Public opinion and attitudes towards migrants are high on the political agenda of many European countries. Increasing concerns about the integration of migrants in a society may (among other potential outcomes):boost support for parties of the "radical right", diminish levels of interpersonal trust and collaboration in a society, increase levels of hostility in society (potentially leading to acts of aggression towards migrants being condoned),and increase levels of discrimination towards migrants in the labour market and everyday situations. This is a sensitive topic, and public opinion can be influenced/distorted by mass media.
Accuracy:

- **Variant 1)** Due to coverage issues related to quota sampling, valid statements based on the survey can only be made with reference to the respondents. Data should not be generalised. Thus, accuracy is limited.

- **Variant 2)** Eurobarometer data should be considered accurate at the national level. For more details on the methodology and quality of Eurobarometer see http://ec.europa.eu/COMMFrontOffice/publicopinion/index.cfm
- **Variant 3)** European social survey data should be considered accurate at the national level. For more details on the methodology and quality of Eurobarometer see https://www.europeansocialsurvey.org/

Timeliness:

- **Variant 1)** Data collection was carried out in autumn 2018. Final dataset is ready to be used. The YOUMIG survey can be repeated when municipalities need it.
- **Variant 2)** Data collection is carried out approximately every six months. For more details on updating Eurobarometer data, please consult http://ec.europa.eu/COMMFrontOffice/publicopinion/index.cfm
- **Variant 3)** Data collection is carried out every two years. For more details on updating European Social Survey data, please consult https://www.europeansocialsurvey.org/

Accessibility:

- **Variant 1)** Data accessible upon request
- **Variant 2)** Data accessible at http://ec.europa.eu/COMMFrontOffice/publicopinion/index.cfm
- **Variant 3)** Data accessible at https://www.europeansocialsurvey.org/

Interpretation: Low levels of trust towards migrants as a whole, or towards particular ethnic groups, not only negatively impacts the success of integration of the immigrant group, but also limit the opportunities of second-generation migrants (children of immigrants) in such spheres as education and the labour market. Discrimination can be based on visible characteristics such as differences in appearance and/or names. One of the possible consequences of discrimination is an outflow of immigrants from their host country, potentially associated with loss of human capital, a weakened labour force, lower income tax collection and similar negative consequences.

High levels of trust towards migrants point to the readiness of a society to support integration of migrants at the local level, the active introduction of migrants to the local community, as well as the wider population's support of national projects and directives promoting integration.

Coherence: Possibilities for comparing across data sources are limited due to different time frames, and questions asked. Comparisons across countries/regions/municipalities for analytical purposes are recommended.

Further critical comments: -

BG: Indicator 75: Intentions to migrate within next five years, [if possible] intended destination, duration of absence

Data collected/Definitions

Intention to migrate can be assessed with the help of the following and similar questions:

- Do you intend to leave this country to go and live in another country? (Yes, No, Undecided)
- Do you have specific plans to leave or do you just have a general feeling that you would like to leave? (Specific plans, General feeling)

Where do you think you will go?

Data availability and Collection process

Variant 1) Data from YOUMIG small-scale survey is available only for 2018 and only at LAU2 level.
Variant 2) Direct request from the NSI, 2011 census; national sample survey on migration behaviour is available for 2011 for Bulgaria.

Development process

Variant 1) Indicator development: Data query from the YOUMIG survey dataset, using the following variables:

- Now you live in [municipality/country]. Ideally, if you had the opportunity, would you like to move to another country, or to another municipality in this country?

Variant 2) Indicator development: Indicator development: Data query from the NSI, 2011 census, using the following variables:
How likely is it - currently or in the next few years – that you:

- go abroad for a short time as a tourist, guest?
- go abroad to work/ study for several months?
- go abroad to work/ study for more than a year?
- go to live in another country/ decide to return?

Do you intend to go to live in another settlement in the country in the next 1 to 3 years?

- Yes
- Undecided
- No

Data use restriction, coverage and frequency of production

Variant 1) Data are public.
Data covers only the respondent in the sample.
Variant 2) The data are public.
Data are representative of the whole population.

Testing

Relevance: The Danube Region is an area with deep historical and economic relations between countries. With the fall of the communist regimes in Eastern Europe and the enlargement of the European Union, migration flows within the region have been intensifying. Up to 40% of all immigrants in each country come from other countries of the region. The migrant pool is becoming younger and more educated; youth in the region are a highly dynamic group accounting for more than half of incoming migrants. A decision to emigrate can impact both sending and receiving countries.
Accuracy:

- **Variant 1)** Due to the coverage issues related to quota sampling, valid statements based on the survey can be made only with reference to the respondents. Data should not be generalised. Thus, accuracy is limited.
- **Variant 2)** Data from Microcensus are considered to be accurate on national level**.**

Timeliness:

- **Variant 1)** Data collection was carried out in autumn 2018.
- **Variant 2)** Data production frequency is very low.

Accessibility: Data accessible upon request.
Interpretation: Although intentions to migrate are not always realised, increasing levels of youth migration may indicate that the social, economic and sometimes political conditions in the country of origin do not match the ambitions of young people, for instance, in terms of availability of jobs, low wages, and low satisfaction with local educational programmes.

To understand better which population subgroups are more likely to emigrate, additional information is needed. Those who report undertaking *active measures*, such as looking for a job abroad, and devising a *specific plan* are more likely to emigrate than those who simply consider this option a hypothetical. Intended *temporary migration* raises issues such as the reintegration of returnees, recognition of academic qualifications, the increasing number of transnational families, and (in the case of return in later stages of life) pension system sustainability.

Disaggregation by *educational level* helps to assess the risk of brain drain and the resultant loss of innovation. Information on work skills demanded by the labour market means that conclusions can be reached concerning: the (un)balancing effect of potential migration on the skills' mismatch and unemployment in the labour market; the perception of low pay for high-demand professions; the lack of options for youth with specific qualifications, etc.

Coherence: comparison across data sources is limited due to different time frames, geographical levels and questions asked. Comparisons across countries/regions/municipalities for analytical purposes are recommended.

Further critical comments: -

BG: Indicator 105: Regional product (Regional GDP) per capita
Data collected/Definitions
Variant 1) Source: World Bank ***GDP per capita based on purchasing power parity (PPP)***. PPP GDP is gross domestic product converted to international dollars using purchasing power parity rates. An international dollar has the same purchasing power in GDP terms as the U.S. dollar has in the United States. GDP at purchaser's prices is the sum of gross value added by all resident producers in the economy plus any product taxes and minus any subsidies not included in the value of the products. It is calculated without making deductions for depreciation on fabricated assets or for the depletion and degradation of natural resources. Data are in current international dollars based on the 2011 ICP round. **Variant 2)** Source: NSI The calculation and the regionalization of GDP by region share common definitions and concepts used in the development of a standard system of national accounts for the country and underpin the European System of Accounts (ESA 2010). The calculations follow the methodology of the production method. The regional equivalent of GDP - gross domestic product by region - is measured at market prices (calculated as regional level gross value added at market prices), to which are added regionalized net taxes on products (taxes minus subsidies). The sum of GDP at market prices for all regions is equal to GDP at market prices for the national economy.
Data availability and Collection process
Variant 1) National level: World Bank, International Comparison Program database,https://data.worldbank.org/indicator/NY.GDP.PCAP.PP.CD?end=2017&start=2010&year_high_desc=true **Variant 2)** Data are available at national and NUTS 3 level. Data owner is NSI and data can be provided from 2000 onwards
Development process
Variant 1) Data available. Consult data at https://data.worldbank.org/indicator/NY.GDP.PCAP.PP.CD?end=2017&start=2010&year_high_desc=true **Variant 2)** Data are available at NSI.
Data use restriction, coverage and frequency of production
Variant 1) Data are public. Coverage is not interpretable in this case. On the frequency of updating data, please consult https://data.worldbank.org/indicator/NY.GDP.PCAP.PP.CD?end=2017&start=2010&year_high_desc=true **Variant 2)** Data are public. Coverage is not interpretable in this case.
Testing
Relevance: National GDP per capita (or its regional counterpart) reflects the living standards in the respective geographic area. High GDP per capita is usually associated with strong economies, booming production, and developed social services. GDP gives an approximation of economic activity, when perceived as low it may serve as a push factor stimulating out-migration, while serving as a pull factor and stimulating in-migration in the opposite case. **Accuracy**: • **Variant 1)** World Bank data should be considered accurate at the national level. For more details on the methodology and quality of World Bank data see https://data.worldbank.org/indicator/NY.GDP.PCAP.PP.CD?end=2017&start=2010&year_high_desc=true • **Variant 2)** Data by NSI are considered accurate. **Timeliness**: • **Variant 1)** Data production is based on the data production system of national statistical institutes. For more details on updating World Bank data, please consult https://data.worldbank.org/indicator/NY.GDP.PCAP.PP.CD?end=2017&start=2010&year_high_desc=true

- **Variant 2)** Data are produced yearly.

Accessibility:

- **Variant 1)** Data accessible at https://data.worldbank.org/indicator/NY.GDP.PCAP.PP.CD?end=2017&start=2010&year_high_desc=true
- **Variant 2)** Data accessible publicly and upon request

Interpretation: *On average, countries with higher GDP per capita experience higher rates of net migration per 1000 population*, namely the difference between incoming and leaving flows of migrants is positive, and the rate of this difference relative to the population is higher in countries with a higher GDP.

GDP figures, however, need to be interpreted in comparison to those of neighbouring, or other reference countries. A country with a relatively high GDP per capita and high GDP growth rates, is more likely to be perceived as a country with a strong economy and good economic prospects, thereby acting as a magnet for immigrants.

The indicator assumes an equal division of GDP figures in the population, in other words, inequality of income and wealth distribution across population groups is not accounted for. High GDP figures do not always coincide with high levels of subjectively perceived living standards, and SWB indicators and trust should supplement the analysis.

Coherence: National level data cannot be compared across data sources.

Further critical comments: -

BG: Indicator 107: Business demography: number of active enterprises; by size, ownership (local/foreign owned)
Data collected/Definitions
Business demography refers to the population of firms, taking into consideration aspects such as the total number of active enterprises in the business economy, their birth and death rates. The number of active enterprises (in the business economy) is an important indicator. An active enterprise is one that had either turnover (totals invoiced by the unit) or employment at any time during the reference period.
Data availability and Collection process
Data can be requested from the NSI, Business Register (Statistical register); data can be provided from 2010 onwards. Breakdown by ownership is unavailable.
Development process
Information can be requested from NSI.
Data use restriction, coverage and frequency of production
Data are public at a national level
Testing
Relevance: The indicators of business demography by analogy to human demographic processes reflect the total number of active enterprises in the business economy, their birth and death rates; in other words, they describe the population size of firms, and the share of firms created and closed each year. Information on the number of employees and the types of legal organisation and industry is collected. These figures help in analysing the propensity to start a new business, and the contribution of newly opened firms to job creation. **Accuracy**: Data are considered to be accurate. **Timeliness**: Data are produced yearly. **Accessibility**: Data accessible upon request **Interpretation**: Disaggregation by *industry* helps to assess which sectors of the economy are growing or contracting, and which specific skills within the labour force are in demand or may become redundant. Information on the *size* of the business and the *nationality* of the owner can be used to address the discussion on ethnic entrepreneurship. In some cases, entrepreneurship becomes a major route for the labour market integration of migrants; thus, any analysis should be linked to a discussion on immigrant discrimination, recognition of formal qualifications, and measures to promote local language proficiency. **Coherence**: Data are internally coherent; comparisons with other variants are not applicable. Comparisons across countries/regions/municipalities for analytic purposes are recommended. **Further critical comments:** -

BG: Indicator 123: Disposable household income per capita

Data collected/Definitions

Disposable household income refers to the amount of money that households have available for spending or saving after income distribution measures have taken effect; the latter comprising payment of taxes, social contributions, and social benefits received. Per capita refers to the disposable household income per person/inhabitant of the area.

Data availability and Collection process

Variant 1) Data from YOUMIG small-scale survey are available only for 2018 and only at LAU2 level.
Variant 2) Direct request form EU SILC at NUTS 3 level. Data owner is NSI; data can be provided from 2008 onwards.

Development process

Variant 1) Indicator development: Data query from the YOUMIG survey dataset, using the following variables:

- Thinking of all possible sources of income, what is your household income after deductions for income tax, national insurance, etc. that you received in the month prior to the interview?

Variant 2) Indicator development. Data query from the SILC database. Using the following variables:

- household incomes
- number of household members

Data use restriction, coverage and frequency of production

Variant 1: Data are for YOUMIG-partners only. Due to the representative nature of the survey and the small number of respondents, the results are of low reliability.
Variant 2: Data are public.

Testing

Relevance: Disposable household income refers to the amount of money that households have available for spending or saving after income distribution measures have taken effect. Thus, the measure reflects individual/family living standards. In the majority of countries under consideration, wages and salaries are the main component of household incomes. Higher living standards can be a factor that dissuades individuals and families from out-migration and emigration, as well as a pull factor stimulating both the in-migration of foreign nationals and the return home of emigrants.

Accuracy:

- **Variant 1)** Due to coverage issues related to quota sampling, valid statements based on the survey can only be made with reference to the respondents. Data should not be generalised. Thus, accuracy is limited.
- **Variant 2)** Data can be considered accurate.

Timeliness:

- **Variant 1)** Data collection was carried out in autumn 2018.
- **Variant 2)** Data production frequency is yearly.

Accessibility: Data accessible upon request

Interpretation: Indicator figures should be considered relative to a measure of the living standards in the society/municipality. Disposable household income can be compared to national/regional poverty thresholds, which can in turn be used to determine whether a household belongs to a poor population stratum. Poverty is one of the conditions that prevent individuals from living healthy and fulfilling lives and being socially included within a society. In recession conditions, *women* and *youth (including children),* and *populations with a migratory background*, are more likely to be vulnerable to poverty. Poverty may also stimulate household indebtedness, which despite stimulating household consumption in the short run, leads in the case of long-term debt, to negative consequences for the economy and GDP growth.

The lower the disposable household income in the population, relative to that of neighbouring countries, the higher the rate of emigration (or temporary out-migration) as a coping mechanism, often resulting in divided families and children left behind.

Coherence: Data are internally coherent; comparisons with other variants are not applicable. Comparisons across countries/regions/municipalities for analytical purposes are recommended.

Further critical comments: -

BG: Indicator 137: Population, by activity status, by sex, 5 year intervals, national/foreign
Data collected/Definitions
In the labour market, the population aged 15 years and above (typically 15-64 y.o.) is divided into the economically active and inactive. The former group includes the employed (civilian employment plus the armed forces), and the latter, the unemployed. The current, economically active population is called the labour force. The indicator is calculated as a percentage of active and inactive people respectively. Therefore, the number of active people is divided by the total population aged15-64.
Data availability and Collection process
Data are available at NUTS 3 level and based on LFS estimates. Data owner is NSI; data can be provided from 2003 onwards. Data refer to total population; national/foreign breakdown is not available.
Development process
Data from LFS is available for the requested years
Data use restriction, coverage and frequency of production
Data are public at the national level and NUTS 3 level. No data at LAU2 level are available
Testing
Relevance: The economically inactive population includes school children, students, pensioners, and housewives or husbands (provided that they are neither working nor available for work); some of these groups may be of working-age. In the case of youth, the NEET part of the population (young people in neither employment, nor education nor training) warrant special attention due to the obvious loss of human capital and productivity. The economically active part of the population serves as an approximation of labour supply in a country/region/municipality; the labour force being the part of the population involved in the production and distribution of goods and services, or actively searching for employment. **Accuracy**: Data are considered accurate. **Timeliness**: Data are produced yearly. **Accessibility**: Data accessible upon request **Interpretation**: Disaggregation by *country of citizenship*, and in addition by *sex*, allows the behaviour of the native and foreign population to be compared (e.g., by providing data on whether native and foreign women have the same opportunities and motivations to work in the labour market). A growing share of economic activity in the working age population might indicate a shrinking labour force, leading to slower economic development and productivity losses, a higher burden on social services and diminished income tax revenue collection. Separate estimations by *age group* can help identify groups with a low activity share, that is, those disproportionally affected by labour market segmentation. Where the disadvantaged group consists of youth, measures leading to the acquisition of skills demanded by the labour market, and the facilitation of the transition from study to work should be undertaken. **Coherence**: Data are internally coherent; comparisons with other variants are not applicable. Comparisons across countries/regions/municipalities for analytical purposes are recommended. **Further critical comments**: -

BG: Indicator 180: Workforce in healthcare/Shortage of work in healthcare/Healthcare workforce gap
Data collected/Definitions
Health workers are "all people engaged in actions whose primary intention is to enhance health". **Bulgarian case:** Population per physician; population per dentist
Data availability and Collection process
Variant 1) Data from Eurostat database are only available for the years 2010-2015 (and in one case until 2016). Data available at the national level and NUTS2 levels. Eurostat prepares estimations based on input data provided by national statistical institutes. **Variant 2)** Request from the NSI: health statistics
Development process
Variant 1) Data available: accessible in the Eurostat database (please consult https://ec.europa.eu/eurostat/data/database) **Variant 2)** Data on the workforce in healthcare are available at LAU 1 level. Data owner is NSI and data can be provided from 2003 onwards.
Data use restriction, coverage and frequency of production
Data are public. The territorial distribution of medical personnel is in accordance with the location of health establishments. Data for medical personnel of health establishments attached to other ministries are included in the total number but not in the territorial distribution.
Testing
Relevance: Indicators of healthcare provision are linked to a region's level of urban development and attractiveness as they directly affect the quality of life at a local level (and serve as a pull factor attracting migrants while encouraging the native population to remain). Conversely, gaps in health care provision and accompanying migration schemes stimulate the in-migration of healthcare and medical professionals; this serves as a huge pull factor directing the relevant migration flows into more economically stable and wealthier countries of the region. For sending countries, gaps in the relevant segments of the labour market appear, while the attractiveness of the receiving areas is further established. **Accuracy**: Data are considered accurate. **Timeliness**: • **Variant 1)** On the frequency of updating Eurostat data, please consult the Eurostat database • **Variant 2)** Data are produced yearly **Accessibility**: • **Variant 1)** Data accessible in the Eurostat database https://ec.europa.eu/eurostat/data/database) • **Variant 2)** Data accessible upon request **Interpretation**: An increasing number of doctors per 100,000 (or per 1,000) inhabitants is associated with an increasing quality of life in a municipality/region, alongside higher health-care coverage for the population. **Coherence**: Comparison across data sources is limited due to different time frames, geographical levels and questions asked. Comparisons across countries/regions/municipalities for analytical purposes are recommended. **Further critical comments**: -

BG: Indicator 74: Aspirations of youth
Data collected/Definitions
In considering ***aspirations of youth***, three main spheres are typically addressed: ***family, education***, and ***employment***. In the context of YOUMIG, the framing of questions with the term "abroad" among the options is of particular importance, especially in relation to education and employment. Thus, in the question "What are your employment aspirations in three next years?" the options might be: (i) start one's own business, (ii) find any job one can, (iii) find a job abroad, (iv) no employment-related plans.
Data availability and Collection process
Data from the YOUMIG small-scale survey are only available for 2018 and only at LAU2 level.
Development process
Indicator development: Data query from the YOUMIG survey dataset, using the following variables: To what extent are the areas, listed below, a priority for you in the next 24 months? • Career: Professional development in a particular job or own business • Education: Ongoing development and/or acquisition of new knowledge and skills • Family: Starting a family or a long-term relationship; having a child
Data use restriction, coverage and frequency of production
Data are public. Data only covers the respondents in the sample. The YOUMIG survey can be repeated when municipalities need it.
Testing
Relevance: The answers may help to assess the attractiveness of the local and foreign environment concerning priorities set by youth. **Accuracy**: Due to coverage issues related to quota sampling, valid statements based on the survey can be made only with reference to the respondents. Data should not be generalised. Thus, accuracy is limited. **Timeliness**: Data collection was carried out in autumn 2018. Final dataset is ready for use. YOUMIG survey can be replicated when municipalities need it. **Accessibility**: Data accessible upon request **Interpretation**: Aspirations of youth can be related - among other aspects - to family life, travel, studies, or labour market achievements. A perceived lack of opportunities to realize such aspirations in a (sending) municipality might lead to the out-migration of youth. Knowledge concerning the aspirations of young people in combination with information on existing services provision, the education system, and labour market conditions, might help to predict the act of migration and/or identify those areas that require the urgent attention of policy-makers. Thus, the family orientation of young people might suggest which family related services will be requested(e.g., childcare and healthcare facilities). Study-orientation might suggest that a careful comparison of existing educational opportunities should be carried out with a view to further improvement in their quality in relation to specialised demand. The establishment of systems of information-dissemination concerning existing educational opportunities might help in reaching a wider population, and possibly in retaining youth. Aspirations in the labour market, in combination with knowledge of the educational specialisations of youth, labour market demand, and comparative analysis of wages might suggest which groups of youth (e.g., in terms of educational attainment and specialisation) are likely to leave a municipality. **Coherence**: Comparison across data sources is limited due to different time frames, geographical levels and questions asked. Comparisons across countries/regions/municipalities for analytical purposes are recommended. **Further critical comments**: -

BG: Indicator 129: Debt-to-income ratio/ Household indebtedness/ Capacity to meet debt obligations

Data collected/Definitions

Household financial obligations (debt) consist of mortgages, consumer credit (loans for the purchase of consumer goods and services), non-mortgage loans (loans to purchase financial securities) and trade payables, which are typically the liabilities of unincorporated businesses.
Household indebtedness is typically measured as the ratio of household debt to disposable income.
High levels of indebtedness in households lead to high levels of financial vulnerability to economic shocks (e.g., job loss).
Since households are not required to pay off all their debt in a given year, what matters more in relation to financial vulnerability is not so much the level of household debt relative to disposable income, but rather the capacity of households to meet their debt service obligations.

Data availability and Collection process

Variant 1) Data from YOUMIG small-scale survey are available only for 2018 and only at LAU2 level.
Variant 2) Data from SILC are available for the years 2012-2017 at the national level.
SILC is carried out using stratified sampling.

Development process

Variant 1) Indicator development: Data query from the YOUMIG survey dataset, using the following variables:

- Do you have home loan repayments? What is the monthly repayment for the borrowed loan?
- Do the household members have any other debt? (mortgage on another property, consumer credit, student loan, etc.) What is the monthly repayment on these loans?
- Thinking ofall possible sources of income, what is your household income after deductions for income tax, National Insurance, etc., which you received in the month prior to the interview?

Variant 2) Indicator development: Data query from the SILC database. Using the following variables:

- Household incomes
- Total mortgage monthly payments (average/median)

Non-mortgage monthly payments (average/median)

Data use restriction, coverage and frequency of production

Variant 1) Data are for YOUMIG-partners only. Due to the representative nature of the survey and small number of respondents, the results are of low reliability.
Variant 2) Data are public.
Data covers the members of surveyed households in the country.
SILC data are produced on a yearly basis.

Testing

Relevance: Working abroad and sending remittances is a common strategy for migrants to reduce indebtedness in households and family members staying in the home country. Thus, the debt-to-income ratio in sending countries should be analysed in relation to the migration aspirations of local youth. In receiving countries, the ratio might be related to the high purchase prices of housing.
Accuracy:

- **Variant 1)** Due to coverage issues related to quota sampling, valid statements based on the survey can be made only with reference to the respondents. Data should not be generalised. Thus, accuracy is limited
- **Variant 2)** Data from SILC: since indicator values are based on weighted estimation, the accuracy is limited

Timeliness:

- **Variant 1)** Data collection was carried out in autumn 2018. Final dataset is ready to be used. The YOUMIG survey can be repeated when municipalities need it.
- **Variant 2)** Data production is on a yearly basis

Accessibility:

- **Variant 1)** Data accessible upon request
- **Variant 2)** Data available but not in the public domain. For more information, contact the data owner.

Interpretation: The debt-to-income ratio is understood as the ratio of household debt to disposable income.

Often it is mortgage payments that constitute the biggest share of this debt. High property prices require larger mortgages, and thus higher monthly payments. The desire to acquire a property might become a push factor stimulating out-migration. A high debt-to-income ratio due to low incomes can also be considered a push factor favouring migration to a municipality/country with higher (perceived) living conditions. A high debt-to-income ratio indication can be a result of (a) *low incomes***,** (b) *high indebtedness of households*, for example, due to low - with respect to living standards - incomes, and (c) *high property prices*. Thus, access to the separate components of the ratio might be useful to assess the source of the ratio value and its changes.
Coherence: Comparison across data sources are limited due to different time frames, geographical levels and questions asked. Comparisons across countries/regions/municipalities for analytic purposes are recommended.
Further critical comments: -

BG: Indicator 159: Over-qualification rate; by natives/foreigners

Data collected/Definitions

Over-qualification rate (OQR), assesses the degree of vertical skills mismatch; namely it counts how many high-skilled persons (meaning persons who have completed tertiary education, ISCED 5-8; supply side of the labour market) are employed in occupations (based on the ISCO classification; demand side of the labour market) that do not require tertiary education.

Data availability and Collection process

Variant 1) Data from YOUMIG small-scale survey are available only for 2018 and only at LAU2 level.
Variant 2) Data from EU-LFS are available at National level. Data owner is NSI and data can be provided from 2010 onwards. Data refer to total population; national/foreign breakdown data are not available.

Development process

Variant 1) Indicator development: Data query from the YOUMIG survey dataset. EU-LFS definitions are used. Will be based on the current NSI's definitions. ISCED and ISCO classifications.
Variant 2) Indicator development: Data query from the EU-LFS database. Using the following variables:

- Highest educational attainment level - variable HATLEVEL (EU-LFS);
- Occupation - variable ISCO4D (EU-LFS);
- Nationality - variable NATIONAL (EU-LFS);
- Country of birth - variable COUNTRYB (EU-LFS);
- Year of birth - variable YEARBIR (EU-LFS).

Data use restriction, coverage and frequency of production

Variant 1) Data from YOUMIG small-scale survey only available for YOUMIG-partners. Due to the representative nature of the survey and small number of respondents, the results have low reliability / lack representativeness for the whole population. There is no breakdown for national/foreign available.
Variant 2) EU-LFS data are public. Data are produced on a yearly basis. Quality: undercoverage of foreigners. Low numbers of foreigners in the sample might cause low accuracy of data produced (calculated indicator), especially concerning the age group 15-34and employability.
Data might be representative only for the total population, without subsetting by natives and foreigners. Time-schedules accord with EU-LFS legalisation.
Due to the representative nature of the survey, there may be issues with accuracy of geographically disaggregated data.

Testing

Relevance: Overqualification implies the existence of a mismatch between the education level required by an occupation and the one possessed by a worker, the latter being higher than the required one. Over education at work implies waste of human capital (and thus resources spent on the education and training of the specialist), and might serve as a push factor when migration is being considered. Overqualification figures are useful for labour market analyses, as they can signal both an excess of labour supply from workers with high qualifications and labour demand shortages.
Accuracy:

- **Variant 1**) Due to coverage issues related to quota sampling, valid statements based on the survey can be made only in reference to the respondents. Data should not be generalised. Thus, accuracy is limited. Further, no data on the size of properties are available.
- **Variant 2)** Data from EU-LFS: since indicator values are based on weighted estimation, accuracy is limited.

Timeliness:

- **Variant 1)** Data collection was carried out in autumn 2018. Final dataset is ready to be used. The YOUMIG survey can be repeated when municipalities need it.
- **Variant 2)** Data production is on a yearly basis.

Accessibility:

- **Variant 1)** Data available but not in the public domain. For more information, contact the data owner.
- **Variant 2)** Data accessible upon request.

Interpretation: A high overqualification rate points to the inefficient use of human capital in a

municipality/country. One reason for this phenomenon might be a mismatch between the types of knowledge delivered by the state education system and those dictated by the market (thus, the up dating of state educational programmes might be required, as well as measures to increase the attractiveness/image of lower-skilled occupations). Disaggregation by *native-foreign* can help in the assessment of the situation: immigrants, on average, have a higher chance of being overqualified for their jobs. Thus, a growing rate of overqualified workers might also signalise an increase in the foreign share of the labour force.
Coherence: Comparison across data sources are limited due to different time frames, geographical levels and questions asked. Comparisons across countries/regions/municipalities for analytical purposes are recommended
Further critical comments: -

BG: Indicator 202: Average/Median cost of rent, in euro and as a share of average/median household income

Data collected/Definitions

Price-to-income ratio is the basic affordability measure for housing in a given area. It is the ratio of median house prices to median familial disposable incomes, expressed as a percentage or as years of income.
Calculation/ clarification of terms: to estimate the ratio, a median price (in the centre of the housing price distribution) of local housing and median disposable household income in the region/municipality is needed.
For operational reasons, in the YOUMIG context, a price-to-income ratio can be calculated for: (i) 1-bedroom apartment or studio; (ii) 2-bedroom apartment.

Data availability and Collection process

Variant 1) Data from YOUMIG small-scale survey are available for 2018 only, and only at LAU2 level.
Variant 2) Data from EU SILC are available for the years 2012-2017 at the national level; no disaggregation by size of property is available.
EU SILC is carried out using stratified sampling.

Development process

Variant 1) Indicator development: Data query from the YOUMIG survey dataset, using the following variables:

- Thinking of all possible sources of income, what is your household income after deductions for income tax, National Insurance, etc.; received in the month prior to the interview?
- In your opinion, what is the market value of your home?

Variant 2) Indicator development: Data query from the EU SILC database. Using the following variables:

- household incomes
- number of rooms in the property
- estimated market value of the property

Data use restriction, coverage and frequency of production

Variant 1) Data are for YOUMIG-partners only. Due to the representative nature of the survey and small number of respondents, the results have low reliability.
Variant 2) Data are public.
Data covers the members of surveyed households in the country.
EU SILC data are produced on a yearly basis.

Testing

Relevance: Affordability of housing is one of the important characteristics of urban/municipality attractiveness. High house prices might become a push factor in decision on migration.
Accuracy:

- **Variant 1**) Due to coverage issues related to quota sampling, valid statements based on the survey can be made only in reference to the respondents. Data should not be generalised. Thus, accuracy is limited. Further, no data on the size of properties are available.
- **Variant 2)** Data from EU SILC: Since indicator values are based on weighted estimation, accuracy is limited.

Timeliness:

- **Variant 1)** Data collection was carried out in autumn 2018. Final dataset is ready to be used. The YOUMIG survey can be repeated when municipalities need it.
- **Variant 2)** Data production are on a yearly basis.

Accessibility:

- **Variant 1)** Data accessible upon request
- **Variant 2)** Data available, but not in the public domain. For more information, contact the data owner.

Interpretation: The higher the price-to-income ratio, the less affordable the housing; thus a longer time period is needed in to purchase a house/flat.
Basic economic theory suggests immigration increases demand for housing, which in turn raises house prices. In contrast, high house prices relative to wages might boost outmigration, which on the longer run might decrease demand for housing, leading to lower house prices. House prices may be one of the most important determinants of migration for young people, influencing their decisions at a stage of life when aspirations to create a home and family are strongest.

Coherence: Comparison across data sources is limited due to different time frames, geographical levels and questions asked. Comparisons across countries/regions/municipalities for analytical purposes are recommended. **Further critical comments**: -

3.3. Hungary

Elaboration: IOS & LP

Based on documents prepared by: Hungarian Central Statistical Office (HCSO)

Version: revised version, December 2018

Set of new indicators:

No	Indicator	type
1	Population; by sex, age, country of citizenship (CoC)	core
7	In-migration, internal/international	core
11	Top-5 sending countries	core
12	Out-migration, internal/international	core
14	Number of returnees registered, sex, education level	core
51	Completed education of persons aged 15-34, by sex, age groups, country of citizenship (native/foreign)	core
53	Student outbound mobility ratio at tertiary level; by sex	core
63	Skill-level of return migrants	core
71	Subjective well-being [in the population]	core
73	Tolerance towards foreigners (foreign workers)	core
75	Intentions to migrate within the next five years, [if possible] intended destination, duration of absence	core
105	Regional GDP per capita (NUTS3), GDP per capita	core
107	Business demography: number of active enterprises; by size (number of employees), ownership (local/foreign owned)	core
123	Disposable household income per capita	core
137	Population, by activity status; by age (5-y. intervals), national-foreign	core
180	Workforce in healthcare/Shortage of work in healthcare/Healthcare workforce gap	core
13	Top 5 destinations by size of diaspora	extra
129	Debt-to-Income-Ratio	extra
202	Price-to-Income ratio (housing prices)	extra

HU: Indicator 1. Population; by sex, age, country of citizenship (CoC)
Data collected/Definitions
Population on 1 January (stock): based on the concept of usual resident population, namely the number of inhabitants in a given area on 1 January of the year in question for selected years.
Data availability and Collection process
Data are available at the HCSO Demographic database for the requested period at national, NUTS3 (Csongrád megye) and LAU2 (Szeged) levels. Stock data, disaggregated by sex and age groups (0-14, 15-24, 25-34, 35-64, 65+) for top-5 migrant groups residing in Hungary are available at all three levels. The population data from the HCSO Demographic database are based on the Census, the population register and satellite registers.
Development process
Data available: Indicator values can be requested directly from HCSO
Data use restriction, coverage and frequency of production
The data are public. Data covers registered resident population. Data produced on a yearly basis: for each year updated in the month of July in the given year.
Testing
Relevance: Basic demographic data (resident population by age, sex and citizenship) from a time perspective is of crucial importance in countries/municipalities characterised by immigration, emigration or return migration in order to identify trends in population change as much as specific challenges and opportunities emerging in labour markets and social welfare systems at the local and national level. Further, data is relevant from the perspective of education, the sustainability of social security systems or the planning of projects etc. **Accuracy**: The population stock data from the HCSO demographic database are Census and register based. The quality of the input as well as of the output database is examined by the Quality management system of the HCSO. As a result, while the actual resident population might differ from the registered one, the dataset is considered to be accurate. **Timeliness**: Data are produced on a yearly basis. For each year, data is finalised in the month of July of the given year. After this, data can be accessed and used by decision-makers. **Accessibility**: Data accessible upon request **Interpretation**: The *age composition* of the population is necessary to determine the dependency ratio, which provides insights into the number of people of nonworking age (aged 0-14 or 65+) compared to the number of those of working age (aged 15-64). As such, the population indicator is an important tool as in addition to calculating the dependency ratio, it aids discussion concerning the sustainability of the social security system. Aging is one of the most important challenges that most Danube region countries face. Education policies should take into account the share of the young (15-34) and under-age (0-14) population, while acknowledging that information on the active-age population is necessary to formulate labour market policies. Further, age composition also affects natality, mortality and marriage. *Sex composition* is important for planning healthcare and social provisions related to childbearing and for policies targeting gender equality. *Composition by citizenship* reflects the presence of immigration and as such, it could indicate the need for socio-economic and labour market integration policies as well as efforts to strengthen social cohesion. **Coherence**: Data are internally coherent; comparisons with other sources are not applicable. Comparisons across countries/regions/municipalities for analytical purposes are recommended. **Further critical comments**: -

HU: Indicator 7: In-migration, internal/international
Data collected/Definitions
International immigration: annual migration flows, namely the number of persons establishing their usual residence in the territory of a country for a period that is, or is expected to be, at least 12 months, having previously been usual resident in another country. Internal immigration is the movement of people from one defined area to another within a country**.**
Data availability and Collection process
Data are available at the HCSO Demographic database for the requested period at national, NUTS3 (Csongrád megye) and LAU2 (Szeged) levels. Migration flow data from the HCSO Demographic database are register-based
Development process
Data available: Indicator values requested directly from HCSO
Data use restriction, coverage and frequency of production
The data are public. Data covers the yearly registered international/internal migration flows Data produced on a yearly basis: for each year updated in the month of July in the following year.
Testing
Relevance: Immigration flow data – both internal and international – are mainly relevant in countries/municipalities characterised predominantly by immigration. Beyond natality and mortality, migration flows determine the size of a population, thus their changes in time constitute a crucial element for planning policies related to the population, including economic and labour market policies, education, healthcare and social provisions etc. Further, where immigration is present, social cohesion and integration policies might be needed. **Accuracy**: The migration flow data from HCSO demographic database are register based. The quality of the inputs as well as of the output database are examined by the Quality management system of the HCSO. As a result, while the yearly immigrating population might differ from the registered one, the dataset is considered to be accurate. **Timeliness**: Data are produced on a yearly basis. For each year data are finalized in the month of July in the following year. After that, data can be accessed and used by decision-makers. **Accessibility**: Data accessible upon request **Interpretation**: Immigration flow data indicate the attractiveness of the municipality/region/country for the inhabitants of the same or other countries. Growing immigration can be a sign that the area is perceived by potential immigrants as a relatively developed and prosperous destination characterised by higher wages and better living conditions. In contrast, the low level or lack of international and/or internal immigration might be related to relative underdevelopment, as perceived by potential immigrants. In economies characterised by aging population and high levels of labour demand, immigration is usually perceived as an advantageous phenomenon. Immigration of highly educated and/or skilled workers is often interpreted as a “brain gain”, and is considered highly beneficial for economies of receiving countries. **Coherence**: Data are internally coherent; comparisons with other sources are not applicable. Comparisons across countries/regions/municipalities for analytical purposes are recommended **Further critical comments**: -

HU: Indicator 11: Top-5 sending countries
Data collected/Definitions
TOP- 5 origin countries of international immigrants using flow data (for a definition see indicator 7) and stock (for a definition see indicator 1) and based on the concept of country of birth or country of citizenship.
Data availability and Collection process
Data are available at the HCSO Demographic database for the requested period at national, NUTS3 (Csongrád megye) and LAU2 (Szeged) levels. Migration flow data from the HCSO Demographic database are register-based and stock data are based on the Census and register data.
Development process
Data available: Indicator values can be requested directly from HCSO
Data use restriction, coverage and frequency of production
The data are public. Data covers the yearly registered international migration flows on the one hand, and the registered resident population on the other. Data produced on a yearly basis: for each year updated in the month of July in the following year.
Testing
Relevance: Sending countries are mainly relevant in countries/municipalities characterised predominantly by immigration. Knowledge on the origin of migrants is needed to create well-targeted cultural and integration policies. **Accuracy**: The migration flow data from the HCSO demographic database is register based, while the migration stock data is based on the Census and register data. The quality of the inputs as well as of the outputs are examined by the Quality management system of the HCSO. As a result, while the yearly immigrating population might differ from the registered one; and the stock of actual residents might differ from the registered one, the stock and flow datasets are considered to be accurate. **Timeliness**: Both stock and flow data are produced on a yearly basis. For each year, the flow data are finalized in the month of July of the following year; flow data can be accessed and used by decision-makers after that. **Accessibility**: Data accessible upon request **Interpretation**: Knowledge of the origin and size of the largest immigrant communities and diasporas of foreign citizens in a municipality/region/country - based on the number of arrivals per year or number of residents from a given sending country - is indispensable for decision makers preparing policy measures aimed at strengthening social cohesion and enhancing the social and labour market integration of immigrants. Changes over time in the most important diasporas -approximated by groups of different migration backgrounds – can signal which immigrant groups require prioritisation in local development strategies, as much as define relationships at policy level with sending countries, thereby enhancing transnational, economic and social ties. **Coherence**: Data are internally coherent; comparisons with other sources are not applicable. Comparisons across countries/regions/municipalities for analytical purposes are recommended. **Further critical comments**: -

HU: Indicator 12: Out-migration, internal/international
Data collected/Definitions
International emigration: annual migration flows, namely the number of persons establishing their usual residence in the territory of a country for a period that is, or is expected to be, at least 12 months, having previously been usual resident in another country. Internal emigration is the movement of people from one defined area to another within a country**.**
Data availability and Collection process
Data are available at the HCSO Demographic database for the requested period at national, NUTS3 (Csongrád megye) and LAU2 (Szeged) levels. Migration flow data from the HCSO Demographic database are register-based
Development process
Data available: Indicator values can be requested directly from HCSO
Data use restriction, coverage and frequency of production
The data are public. Data covers the yearly (de-)registered international/internal emigration flows Data produced on a yearly basis: each year updated in the month of July of the following year.
Testing
Relevance: Emigration flow data – both internal and international – are mainly relevant in countries/municipalities characterised by emigration and return migration. Beyond natality and mortality, migration flows determine the size of a population, thus their changes over time constitute a crucial element in planning policies related to the population, including economic and labour market policies, education, healthcare and social provisions. Where emigration is a common life strategy for the population, and especially for youth, challenges related to an increasingly aging society in the Danube region are set to emerge, such as the deteriorating sustainability of the social welfare system, and growing unmet labour demand. **Accuracy**: Emigration flow data from HCSO demographic database is register based. The quality of the inputs as well as of the output database is examined by the Quality management system of the HCSO. As a result, while the yearly emigrating population might differ from the (de-)registered one, the dataset is considered to be accurate. **Timeliness**: Data are produced on a yearly basis. For each year, data is finalised in the month of July of the following year. After that, data can be accessed and used by decision-makers. **Accessibility**: Data accessible upon request **Interpretation**: Emigration flow data indicate the potential of the municipality/region/country for maintaining its population. Growing emigration can suggest that an area is perceived by (potential) emigrants as a relatively underdeveloped and less prosperous area characterised by lower wages and worse living conditions. In economies characterised by an aging population and high levels of labour demand, emigration is seen as a serious challenge threatening the sustainability of the whole economy and society. However, beyond population loss and “brain drain”, outmigration can also bring benefits to origin countries: emigrants often send considerable amounts in remittances; some make investments back home, while others return bringing new skills and know-how. Relationships with strong diasporas in destinations are potentially beneficial and offer opportunities to enhance transnational businesses, etc. **Coherence**: Data are internally coherent; comparisons with other sources are not applicable. Comparisons across countries/regions/municipalities for analytical purposes are recommended **Further critical comments**: -

HU: Indicator 14: Number of returnees registered, sex, education level
Data collected/Definitions
Number of residents born in the reporting country, immigrated from abroad per year (flow) after a short or long term stay in another country, by sex and educational attainment
Data availability and Collection process
Variant 1) Data from 2011 census and Microcensus 2016 are available only for the years 2010, 2011, and 2015, 2016, respectively. Data disaggregated by educational attainment are available at national, NUTS3 (Csongrád megye) and LAU2 (Szeged) levels. The 2011 census was carried out among the total of households residing in Hungary (full enumeration). Microcensus 2016 – Basic questionnaire – was carried out among a 10% sample of households residing in Hungary that is representative at the LAU1 level (weighted estimation). **Variant 2)** Data from Eurostat database is available only for the years 2010-2016. Disaggregation is only available by sex at the national level, not available by educational attainment at any levels. Eurostat prepares estimations based on input data provided by national statistical institutes. **Variant 3)** Data are available at the HCSO Demographic database for the requested period at national, NUTS3 (Csongrád megye) and LAU2 (Szeged) levels. Disaggregation is only available by sex at all levels, not available by educational attainment at any levels. Flow data on returners from the HCSO Demographic database are register-based.
Development process
Variant 1) Data available: Indicator values can be requested directly from HCSO **Variant 2)** Data available: accessible in Eurostat database (please consult https://ec.europa.eu/eurostat/data/database) **Variant 3)** Data available: Indicator values can be requested directly from HCSO
Data use restriction, coverage and frequency of production
Variant 1) The data are public. Data covers the respondents born in Hungary, residing in the municipality/region/country who answered that they had returned from abroad after a shorter or longer stay in the actual or previous year (i.e.,2010, 2011 and 2015, 2016). Census data are produced every ten years. Microcensus data are produced every ten years – between two full-scope censuses. **Variant 2)** The data are public. On the coverage and frequency of updating the Eurostat data, please consult the Eurostat database **Variant 3)** The data are public. Data covers the yearly (re-)registered flows of returners Data produced on a yearly basis: for each year updated in the month of July of the following year.
Testing
Relevance: Data on the flow of return migrants are mainly relevant in countries/municipalities characterised by return migration and emigration. In several aspects, the relevance of return migration flows is similar to that of immigration flows, but there are also some striking differences: return migration can ease the challenges posed by outmigration and reduce population losses due to emigration, further; the integration of return migrants appears less challenging for local and national governments than that of foreign citizens. **Accuracy**: • **Variant 1)** The return migration flow data from the Census is considered the most accurate among all data sources, due to the fact that the 2011 census was a full-scope survey, covering all households in the country, and the whole process of producing data was examined by the quality management system of the HCSO. Even Microcensus data are less accurate, since they are based on weighted estimations. Further, Microcensus data at the LAU2 level are of limited reliability (as the sample is representative at the LAU1 level) • **Variant 2)** Return migration flow data published by Eurostat are based on register-based input data sent by the HCSO, corrected and examined by the Eurostat Quality Management system. For more details, please consult the Eurostat database. • **Variant 3)** The return migration flow data from the HCSO demographic database are register based.

The quality of the inputs as well as of the output database is examined by the Quality management system of the HCSO. As a result, while the yearly returning population might differ from the (re-)registered one, the dataset is considered to be accurate.

Timeliness:

- **Variant 1)** Data production frequency is very low. Between Censuses and Microcensuses, it is recommended that other data sources be used.
- **Variant 2)** On the frequency of updating Eurostat data, please consult the Eurostat database
- **Variant 3)** Data are produced on a yearly basis. For each year, data are finalised in the month of July of the following year. After that, data can be accessed and used by decision-makers.

Accessibility:

- **Variant 1)** Data accessible upon request
- **Variant 2)** Data accessible in the Eurostat database https://ec.europa.eu/eurostat/data/database)
- **Variant 3)** Data accessible upon request

Interpretation: Return migration, especially of the skilled and highly educated, is seen as one of the most beneficial forms of migration. It is usually interpreted as a *triple win solution* in which both sending and destination countries, as well as the migrants themselves profit from the experience: 1) migrants earn higher wages and acquire marketable skills largely unavailable in their origin countries; 2) destination countries in need of migrant labour can benefit from the immigration of foreign workers without the costs of integration policies; 3) origin countries can gain from receiving remittances, while return migration reduces the costs of losing population. Returners might also bring home financial, human and social capital that can be used productively in origin countries. Outmigration and return migration of a person that occurs repeatedly is referred to as re-migration, circular migration, etc; and in the case of skilled workers, “brain circulation” is often mentioned. This circularity of migrants is commonly thought to be the most beneficial and desirable forms of migration.

Coherence: The three variants can be contrasted with each other; however, comparisons are limited due to low availability in terms of disaggregation, geographical level, or time. The comparison suggests that register data (including Eurostat) underestimate the number of returners, especially in the beginning of the requested period. Differences between register and Microcensus data are smaller suggesting an improving quality of registers. Indeed, in Hungarian national legislation, sanctions for not (de-)registering were introduced only after 2010. Comparisons across countries/regions/municipalities for analytical purposes are recommended.

Further critical comments: The fact that significant differences exist across data sources, raises doubts about the reliability and assumed accuracy of registers despite quality assurance systems.

HU: Indicator 51: Completed education of persons aged 15-34, by sex, age groups, country of citizenship (native/foreign)

Data collected/Definitions

Educational attainment of the native and foreign resident population aged 15-34:
1) Low education: Less than primary, primary and lower secondary education (ISCED 2011 levels 0-2); 2) Medium education: Upper secondary and post-secondary non-tertiary education (ISCED 2011 levels 3 and 4); 3)High education: Tertiary education (ISCED 2011 levels 5-8)

Data availability and Collection process

Variant 1) Data from 2011 census and Microcensus 2016 are available only for the years 2011 and 2016, respectively. Data disaggregated by educational attainment, sex and citizenship (national/foreign) are available at national, NUTS3 (Csongrád megye) and LAU2 (Szeged) levels.
The 2011 census was carried out among the total of households residing in Hungary (full enumeration). Microcensus 2016 – Basic questionnaire – was carried out among a 10% sample of households residing in Hungary that is representative at the LAU1 level (weighted estimation).
Variant 2) Data from LFS is available for the requested years. Data disaggregated by educational attainment, sex and citizenship (national/foreign) are only available at national and NUTS2 (Dél-Alföld) levels.
LFS is carried out using stratified sampling that is representative at the national level (weighted estimation)
Variant 3) Data from SILC are available for the years 2010-2016. Data disaggregated by educational attainment, sex and citizenship (national/foreign) are only available at national and NUTS2 (Dél-Alföld) levels.
SILC is carried out using stratified sampling that is representative at the NUTS2 and national levels (weighted estimation).

Development process

Variant 1) Indicator development: Data query from the HCSO Census and Microcensus databases (Basic questionnaire). Using the following variables:

- Household address (Basic questionnaire);
- Date of birth of household members (Basic questionnaire);
- Sex of household members (Basic questionnaire);
- Country of citizenship of household members (Basic questionnaire);
- Level of education of household members (Basic questionnaire)

Variant 2) Indicator development: Data query from the HCSO LFS database. Using the following variables:

- Household address;
- Citizenship;
- Level of education;
- Date of birth;
- Sex

Variant 3) Indicator development: Data query from the HCSO SILC database. Using the following variables:

- Household address;
- Year of birth of household members;
- Sex of household members;
- Country of citizenship of household members;
- Level of education of household members

Data use restriction, coverage and frequency of production

Variant 1) The data are public.
Data cover the members of surveyed households in the municipality/region/country.
Census data are produced every ten years. Microcensus data are produced every ten years – between two full-scope censuses.
Variant 2) Data are only partly public: Data on foreign citizens at the NUTS2 level are restricted. For more information, contact the data owner.
Data covers the members of surveyed households in the municipality/region/country.
LFS data are produced on a quarterly basis.
Variant 3)
Data are only partly public: Data on foreign citizens and data on natives at the NUTS2 level are restricted. For

more information, contact the data owner.
Data covers the members of surveyed households in the municipality/region/country.
SILC data are produced on a yearly basis.

Testing

Relevance: The educational attainment of the population is relevant in countries characterised by immigration, emigration and return migration. People possessing a higher education are more productive at work, and their earning potential, life expectancy and general health tend to be better. Further, their life satisfaction is higher than those who are less skilled. Thus, while high levels of educational attainment in the population positively affect the wider economy, the health system, as well as individual and psychosocial characteristics beyond economic and labour-related outcomes also benefits.

Accuracy:

- **Variant 1)** The educational attainment data from the Census are considered the most accurate among all data sources, due to the fact that the2011 census was a full-scope survey, covering all households in the country, and the whole process of producing data was examined by the quality management system of the HCSO. Even Microcensus data are less accurate, since they are based on weighted estimations. Further, Microcensus data at the LAU2 level are of limited reliability (due to low sample size).
- **Variant 2)** The educational attainment data from LFS are based on weighted estimation, thus, accuracy is lower. Further, LFS data at the NUTS2 level, and data on foreign citizens at the national level are of limited reliability (due to low sample size)**.**
- **Variant 3)** The educational attainment data from SILC are based on weighted estimation, thus, accuracy is lower. Further, SILC data at the NUTS2 level, and data on foreign citizens at the national level are of limited reliability (due to low sample size)**.**

Timeliness:

- **Variant 1)** Data production frequency is very low. Between Censuses and Microcensuses, it is recommended that other data sources be used.
- **Variant 2)** Data production is on a quarterly basis
- **Variant 3)** Data production is on a yearly basis.

Accessibility:

- **Variant 1)** Data accessible upon request
- **Variant 2)** Data accessible upon request with the exception of NUTS2 level data on foreigners, that are available but not for the public domain. For more information, contact the data owner.
- **Variant 3)** Only national level data on natives are accessible upon request. NUTS2 level data on natives and all data on foreigners are available, but not for the public domain. For more information, contact the data owner.

Interpretation:**Interpretation**: It is clear that educational attainment affects economic growth positively. People with higher levels of education are more productive and more creative, thereby contributing to (local) development. Further, they earn and consume more, enhancing the economy; they pay higher taxes and experience lower levels of unemployment, and as a result make less use of the social welfare system. Since they enjoy better health and well-being, they tend to use the healthcare system less frequently. Overall, raising levels of education in the population – in natives and foreigners alike – is desirable.

Coherence: The three variants can be contrasted with each other; however, comparisons are limited due to low availability in terms of disaggregation, geographical level or time. The comparison reveals differences between the results obtained from different sources.

Comparisons across countries/regions/municipalities for analytical purposes are recommended.

Further critical comments: The fact that significant differences exist across data sources raises doubts about the reliability and assumed accuracy of sample-based weighted estimations, and makes it difficult to decide which data source should be prioritized.

HU: Indicator 53: Student outbound mobility at tertiary level, by sex

Data collected/Definitions

Share of students participating in the international tertiary mobility/exchange study programmes as a share of all students enrolled in tertiary education in reporting country by sex (male/female)

Data availability and Collection process

Data from Microcensus 2016 are available only for 2016. Data disaggregated by sex are available at national, NUTS3 (Csongrád megye) and LAU2 (Szeged) levels.

Microcensus 2016 – Basic questionnaire – was carried out among a 10% sample of households residing in Hungary that is representative at the LAU1 level, while Microcensus 2016 – Complementary questionnaire was carried out using a smaller sample, representative at the national level (weighted estimation).

Development process

Indicator development: Data query from the HCSO Microcensus database (Basic and Complementary questionnaire). Using the following variables:

- Household address (Basic questionnaire);
- Sex of household members (Basic questionnaire);
- Country of citizenship of household members (Basic questionnaire);
- Do you study at present? (Basic questionnaire)
- Country of residence of household members abroad (Complementary questionnaire)
- What activity/ies is he/she doing abroad? (Complementary questionnaire)
- What is the level of education in which he/she is participating abroad? (Complementary questionnaire)

Data use restriction, coverage and frequency of production

The data are public.

Data covers the members of surveyed households in the municipality/region/country, who are residing abroad. Microcensus data is produced every ten years – between two full-scope censuses.

Testing

Relevance: Student migration is a common form of moving abroad among young people, thus it is relevant for the whole Danube Region, in countries characterised by immigration, emigration or return migration as well. Temporal stays abroad with the aim of studying (e.g. 1-2 semesters, or full educational programmes) are beneficial for sending communities, however students might decide to stay in destinations and use their newly obtained skills and knowledge there instead of returning home.

Accuracy: Data on student mobility from Microcensus 2016 covers only those students that are household members staying abroad with the aim of participating in higher education. Since indicator values are based on weighted estimation, the accuracy is limited. Further, data at the LAU2 level are of limited reliability (due to low sample size)

Timeliness: Data production frequency is very low. Microcensuses are carried out between two full scope censuses.

Accessibility: Data accessible upon request

Interpretation: Students might decide to study abroad with the expectations of learning new languages, profiting from better educational opportunities and better job offers, and creating international social networks that might be useful in professional life or for others. Study abroad is usually highly valued in hometowns. However, attracting well-educated young professionals to return to their sending communities is often not an easy task, when most of their newly obtained knowledge can be better used in destinations that generally offer higher wages, higher living standards and jobs better suited to the aspirations of young professionals.

Coherence: Data are internally coherent, comparisons with other sources are not applicable. Comparisons across countries/regions/municipalities for analytical purposes are recommended.

Further critical comments: The possibility of creating a second variant was foreseen using register data from the Educational Office of the Ministry of Human Resources.

Cooperation is based on MLG schemes. Experimental data to carry out methodological examinations however, have not been accessed.

HU: Indicator 63: Skill-level of return migrants

Data collected/Definitions

Stock of return migrants are the expats returning to the reporting country. Skills are approximated by education level (primary or lower, secondary, tertiary) (see also indicator 14 and 51).

Data availability and Collection process

Variant 1) Data from YOUMIG small-scale survey are available only for 2018. Disaggregation by educational attainment and sex is available only at LAU2 level.
Data from the YOUMIG Survey were collected from among approximately 800 respondents, aged 15-34, using quota sampling.
Variant 2) Data from 2011 census and Microcensus 2016 are available only for the years 2011 and 2016, respectively. Data disaggregated by educational attainment, sex and citizenship (national/foreign) are available at national, NUTS3 (Csongrád megye) and LAU2 (Szeged) levels.
The 2011 census was carried out among the total of households residing in Hungary (full enumeration). Microcensus 2016 – Basic questionnaire – was carried out among a 10% sample of households residing in Hungary that is representative at the LAU1 level (weighted estimation).

Development process

Variant 1) Indicator development: Data query from the YOUMIG survey dataset, using the following variables:

- Migration experience in the past;
- Sex;
- Educational attainment

Variant 2) Indicator development: Data query from the HCSO Census and Microcensus databases (Basic questionnaire). Using the following variables:

- Household address (Basic questionnaire);
- Country of birth of household members (Basic questionnaire);
- Migration experience in the past of household members (Basic questionnaire);
- Sex of household member (Basic questionnaire);
- Level of education of household members (Basic questionnaire)

Data use restriction, coverage and frequency of production

Variant 1) Data are public.
Data covers only the respondent in the sample.
The YOUMIG survey can be repeated whenmunicipalities need it.
Variant 2) The data are public.
Data covers the members of surveyed households in the municipality/region/country.
Census data are produced every ten years. Microcensus data are produced every ten years – between two full-scope censuses.

Testing

Relevance: Data on the stock of return migrants are mainly relevant in countries/municipalities characterised by return migration and emigration. While in several aspects the relevance of the numbers of returners is similar to that of immigrants, there are also some striking differences: return migration can also soften the challenges posed by outmigration and reduce population losses due to emigration; however, their integration appears as less challenging for local and national governments than that of foreign citizens.
Accuracy:

- **Variant 1)** Due to coverage issues related to quota sampling, valid statements based on the survey can be made only with reference to the respondents. Data should not be generalised. Thus, accuracy is limited.
- **Variant 2)** The data on the stocks of returners from the Census are considered the most accurate among all data sources, due the fact that the 2011 census was a full-scope survey, covering all households in the country, and the whole process of producing data was examined by the quality management system of the HCSO. Even Microcensus data are less accurate, since it is based on weighted estimations. Further, Microcensus data at the LAU2 level are of limited reliability (due to the fact that sample is representative at LAU1 level)

Timeliness:

- **Variant 1)** Data collection was carried out in autumn 2018. Final dataset is ready to be used. The YOUMIG survey can be repeated when municipalities need it.
- **Variant 2)** Data production frequency is very low. Between Censuses and Microcensuses, it is recommended that other data sources be used.

Accessibility:

- **Variant 1)** Data accessible upon request
- **Variant 2)** Data accessible upon request

Interpretation: Return migration, especially of the skilled and highly educated, is seen as one of the most beneficial forms of migration. It is usually interpreted as a *triple win solution* in which both sending and destination countries, as well as the migrants themselves profit from the experience: 1) migrants earn higher wages and acquire marketable skills largely unavailable in their origin countries; 2) destination countries in need of migrant labour can benefit from the immigration of foreign workers without the costs of integration policies; 3) origin countries might gain from receiving remittances, while return migration reduces the costs of losing population. Returners might also bring home financial, human and social capital that can be used productively in origin countries.

Coherence: The two variants should not be contrasted with each other. Comparisons across countries/regions/municipalities for analytical purposes are recommended.

Further critical comments: The fact that significant differences exist across data sources raises doubts about the reliability and assumed accuracy of registers despite quality assurance systems.

HU: Indicator 71: [SUBJ] [Average] Subjective well-being in the population

Data collected/Definitions

Subjective well-being (SWB) is often measured - though not exclusively - in the form oflifesatisfaction, namely as an individual answer to a question: "All things considered, how satisfied are you with your life as a whole these days?"

Subjective well-being encompasses three distinct but complementary sub-dimensions: 1) *life satisfaction*, based on an overall cognitive assessment; 2) *affects*, or the presence of positive feelings and absence of negative feelings; and 3) *eudemonics*, the feeling that one's life has a meaning.

Life satisfaction represents how a person evaluates or appraises their life as a whole. It is intended to cover a broad, reflective appraisal of their life. The term "life" as used here, refers to all areas of a person's existence. The variable therefore refers to the respondent's opinions/feelings about the degree of satisfaction in his or her life. It focuses on how people are feeling "these days" rather than specifying a longer or shorter time period. The intention is not to assess the current emotional state of the respondent but rather to make a reflective judgement on his or her level of satisfaction - in cognitive and affective terms.

Data availability and Collection process

Variant 1) Data from YOUMIG small-scale survey are available only for 2018. Data disaggregated by country of birth are available only at LAU2 level.

Data from the YOUMIG Survey were collected from among approx. 800 respondents, aged 15-34, using quota sampling.

Variant 2) Data from SILC are available for the years 2013, 2015, 2016 and 2017. Data disaggregated by country of birth are available only at NUTS2 and national levels.

SILC is carried out using stratified sampling that is representative at the NUTS2 and national levels (weighted estimation).

Variant 3) Data from Microcensus 2016 are available only for the years 2016. Data disaggregated by country of birth are available at national, NUTS2 (Dél-Alföld) and LAU2 (Szeged) levels.

Microcensus 2016 – Basic questionnaire – was carried out among a 10% sample of households residing in Hungary that is representative at the LAU1 level (weighted estimation), while Microcensus 2016 – Complementary questionnaire was carried out using a smaller sample, representative at the national level (weighted estimation).

Development process

Variant 1) Indicator development: Data query from the YOUMIG survey dataset, using the following variables:

- Country of birth
- Overall, how satisfied are you with your life nowadays?
- Overall, how satisfied are you with the financial situation of your household?
- Overall, how satisfied are you with your accommodation?
- Overall, how satisfied are you with your personal relationships?

Variant 2) Indicator development: Data query from the HCSO SILC database. Using the following variables:

- Country of birth
- Overall, how satisfied are you with your life nowadays?

Variant 3) Indicator development: Data query from the HCSO Microcensus 2016 database. Using the following variables:

- Country of birth
- Overall, how satisfied are you with your life nowadays?

Data use restriction, coverage and frequency of production

Variant 1) Data are public. Data covers only the respondent in the sample. YOUMIG survey can be repeated when municipalities need it.

Variant 2) Data are only partly public: Data on the foreign-born are restricted. For more information, contact the data owner.

Data covers the members of surveyed households in the municipality/region/country. SILC data are produced on a yearly basis.

Variant 3) Data are only partly public: Data on the foreign-born and data on natives at the NUTS2 level are restricted. For more information, contact the data owner.

Testing
Relevance: Subjective well-being indicators are closely related to the topics of social capital (including social norms, trust, and spirit of cooperation) and the quality of life (covering multiple dimensions of life including wealth, employment, physical and mental health, safety, freedom, among others). Even such a general measure as *satisfaction with life as a whole* can predict further migration behaviour since dissatisfied people on average migrate more often. When making a decision to migrate, people are influenced as much by their objective conditions as by their perceptions and opinions with regard to those conditions. Subjective well-being indicators are usually collected at national and regional level, in household surveys and specialised polls. **Accuracy**: • **Variant 1)** Due to coverage issues related to quota sampling, valid statements on the survey can be made only with reference to the respondents. Data should not be generalised. Thus, accuracy is limited. • **Variant 2)** The subjective well-being data from SILC are based on weighted estimation, thus, accuracy is limited. • **Variant 3)** The subjective well-being data are from Microcensus 2016: since indicator values are based on weighted estimation, the accuracy is limited. Further, data at the LAU2 level is of limited reliability (due to low sample size) **Timeliness**: • **Variant 1)** Data collection was carried out in autumn 2018. Final dataset is ready to be used. The YOUMIG survey can be repeated when municipalities need it. • **Variant 2)** Data production is on a yearly basis. • **Variant 3)** Data production frequency is very low. Between Microcensuses, it is recommended that other data sources be used. **Accessibility**: • **Variant 1)** Data accessible upon request • **Variant 2)** Only data on the total population are accessible upon request. Data on foreigners are available, but not in the public domain. For more information, contact the data owner. • **Variant 3)** Only national and NUTS2 level data on the total population is accessible upon request. Data on the total population at LAU2, and data on foreigners at all levels are available but not for the public domain. For more information, contact the data owner. **Interpretation**: A high SWB indicator level suggests that life and living conditions are perceived favourably by individuals. An increase in the indicator not only signals an improvement in the individual situation, but also in the socio-economic and political environment(e.g., a high level of interpersonal trust in a society, and high living standards, among other factors). Modifications to the survey question allow the assessment of satisfaction levels (and thus, individuals' opinions) on specific life domains and issues, for instance, satisfaction with local services. The SWB indicators at national level, within the EU-27(or 15), can be used as an SWB benchmark in a municipality. The SWB can be evaluated for different subgroups of a population. Life satisfaction for women is on average lower than that of men; the age-life satisfaction relationship is most often U-shaped; and nationals of post-communist states are on average less satisfied with life than populations of Western European countries. Immigrants are often less satisfied with life than local populations - especially in the first stage after their arrival - due to difficulties with integration, working in occupations that require lower skills than migrants actually possess, loneliness, and so on. Thus, when drawing conclusions on the differences in SWB between locals and immigrants, it is recommended that data be disaggregated for immigrants by length of stay. **Coherence**: Comparison across data sources is limited. Comparisons across countries/regions/municipalities – especially SILC data – are recommended for analytical purposes. **Further critical comments**: -

HU: Indicator 73: [SUBJ] Tolerance towards foreigners (foreign workers)

Data collected/Definitions

Tolerance towards foreigners can be framed as tolerance or attitudes towards migrants, or more specifically towards migrant workers**.**

Data availability and Collection process

Variant 1) Data from YOUMIG small-scale survey are available only for 2018 and only at LAU2 level.
Data from the YOUMIG Survey were collected from among approx. 800 respondents, aged 15-34, using quota sampling.
Variant 2) Data from Eurobarometer are available for the years 2014-2018 only at the national level. For information on data collection, see http://ec.europa.eu/COMMFrontOffice/publicopinion/index.cfm
Variant 3) Data from ESS are available for the years 2010, 2012, 2014, 2016, only at the national level. For information on data collection, see https://www.europeansocialsurvey.org/

Development process

Variant 1) Indicator development: Data query from the YOUMIG survey dataset, using the following variables:

- Immigrants take jobs away from natives in the country
- A country's cultural life is undermined by immigrants
- Immigrants make crime problems worse
- Immigrants are a strain on a country's welfare system
- In the future the proportion of immigrants will become a threat to society
- For the greater good of society it is better for immigrants to maintain their distinct customs and traditions

Variant 2) Data available: Consulting the following variables of Eurobarometer:
Please tell me whether each of the following statements evokes a positive or negative feeling

- Immigration of people from other EU Member States
- Immigration of people from outside the EU

Variant 3) Data available: Data query from the ESS dataset, using the following variables:

- Would you say it is generally good or bad for [country]'s economy that people come to live here from other countries?
- Would you say that [country]'s cultural life is generally enriched or undermined by people coming to live here from other countries?
- Is [country] made a better or worse place to live as a result of people coming to live here from other countries?

Data use restriction, coverage and frequency of production

Variant 1) Data are public.
Data cover only the respondent in the sample.
YOUMIG survey is repeatable when municipalities need it.
Variant 2) Data are public.
Re data coverage, please consult Eurobarometer at
http://ec.europa.eu/COMMFrontOffice/publicopinion/index.cfm
Data collection is usually every six months.
Variant 3) Data are public.
Re data coverage, please consult ESS at see https://www.europeansocialsurvey.org/

Testing

Relevance: Public opinion and attitudes towards migrants are high on the political agenda of many European countries. Increasing concerns about the integration of migrants in a society might (among other concerns): boost support for parties of the "radical right" and diminish levels of interpersonal trust and collaboration in a society. Further, such concerns might increase the level of hostility in a society (potentially leading to acts of aggression towards migrants being condoned), and increase the chance of discrimination towards migrants in the labour market and everyday situations. This is a sensitive topic, and public opinion can be influenced/distorted by mass media.
Accuracy:

- **Variant 1)** Due to coverage issues related to quota sampling, valid statements based on the survey can

be made only with reference to the respondents. Data should not be generalised. Thus, accuracy is limited.

- **Variant 2)** Eurobarometer data should be considered accurate at the national level. For more details on the methodology and quality of Eurobarometer, see http://ec.europa.eu/COMMFrontOffice/publicopinion/index.cfm
- **Variant 3)** European Social Survey data should be considered accurate at the national level. For more details on the methodology and quality of Eurobarometer, see https://www.europeansocialsurvey.org/

Timeliness:

- **Variant 1)** Data collection was carried out in autumn 2018. Final dataset is ready to be used. The YOUMIG survey can be repeated when municipalities need it.
- **Variant 2)** Data collection is carried out approximately every six months; for more details on updating Eurobarometer data, please consult
- http://ec.europa.eu/COMMFrontOffice/publicopinion/index.cfm
- **Variant 3)** Data collection is carried every two years; for more details on updating European Social Survey data, please consult https://www.europeansocialsurvey.org/

Accessibility:

- **Variant 1)** Data accessible upon request
- **Variant 2)** Data accessible at http://ec.europa.eu/COMMFrontOffice/publicopinion/index.cfm
- **Variant 3)** Data accessible at https://www.europeansocialsurvey.org/

Interpretation: Low levels of trust towards migrants as a whole, or towards particular ethnic groups, not only negatively impacts the success of integration of the immigrant group, but also limit the opportunities of second-generation migrants (children of immigrants) in such spheres as education and the labour market. Discrimination can be based on visible characteristics such as differences in appearance and/or names. One of the possible consequences of discrimination is an outflow of immigrants from their host country, potentially associated with a loss of human capital, a weakened labour force, a lower income tax collection and similar negative consequences.

Conversely, high levels of trust towards migrants point to the readiness of a society to support the integration of migrants at the local level, the active introduction of migrants to the local community, as well as the wider population's support of national projects and directives promoting integration.

Coherence: Comparison across data sources is limited due to different time frames, and questions asked. Comparisons across countries/regions/municipalities for analytical purposes are recommended.

Further critical comments: -

HU: Indicator 75: Intentions to migrate within next five years, [if possible] intended destination, duration of absence

Data collected/Definitions

Intention to migrate can be assessed with help of the following and similar questions:

- Do you intend to leave this country to go and live in another country? (Yes, No, Undecided)
- Do you have specific plans to leave or do you just have a general feeling that you would like to leave? (Specific plans, General feeling)

Where do you think you will go?

Data availability and Collection process

Variant 1) Data from YOUMIG small-scale survey are available only for 2018 and only at LAU2 level.
Data from the YOUMIG Survey were collected from among approx. 800 respondents, aged 15-34, using quota sampling.
Variant 2) Data from Microcensus 2016 are available only for the years 2016. Data disaggregated by country of birth are available at national level.

Development process

Variant 1) Indicator development: Data query from the YOUMIG survey dataset, using the following variables:

- Ideally, if you had the opportunity, would you like to move to another country, or to another municipality in this country?

Variant 2) Indicator development: Indicator development: Data query from the HCSO Microcensus 2016 database, using the following variables:

- Do you have plans to move abroad in the next 2 years to work, study or for any other reason?
- How much time do you plan to spend abroad in the future?
- To which country/ies do you plan to move?

Data use restriction, coverage and frequency of production

Variant 1) Data are public.
Data covers only the respondent in the sample.
The YOUMIG survey can be repeated when municipalities need it.
Variant 2) The data are public.
Data covers the members of surveyed households in the municipality/region/country.
Census data are produced every ten years. Microcensus data are produced every ten years – between two full-scope censuses.

Testing

Relevance: The Danube Region is an area with deep historical and economic relations between countries. With the fall of the communist regimes in Eastern Europe and the enlargement of the European Union, migration flows within the region have been intensifying. Up to 40% of all immigrants in each country come from other countries of the region. The migrant pool is becoming younger and more educated; youth in the region are a highly dynamic group accounting for more than half of incoming migrants. A decision to emigrate can impact both sending and receiving countries.

Accuracy:

- **Variant 1)** Due to coverage issues related to quota sampling, valid statements based on the survey can be made only with reference to the respondents. Data should not be generalised. Thus, accuracy is limited.
- **Variant 2)** Data from Microcensus 2016: Since indicator values are based on weighted estimation, the accuracy is limited.

Timeliness:

- **Variant 1)** Data collection was carried out in autumn 2018. Final dataset is ready to be used. The YOUMIG survey can be repeated when municipalities need it.
- **Variant 2)** Data production frequency is very low. Between Microcensuses, it is recommended that other data sources be used.

Accessibility:

- **Variant 1)** Data accessible upon request
- **Variant 2)** Data accessible upon request

Interpretation: Although intentions to migrate are not always realised, increasing levels of youth migration may indicate that the social, economic and sometimes political conditions in the country of origin do not match the ambitions of young people, for instance, in terms of availability of jobs, low wages, and low satisfaction with local educational programmes.

To understand better which population subgroups are more likely to emigrate, additional information is needed. Those who report undertaking *active measures*, such as looking for a job abroad, and devising a *specific plan* are more likely to emigrate than those who simply consider this option a hypothetical. Intended *temporary migration* raises issues such as the reintegration of returnees, recognition of academic qualifications, the increasing number of transnational families, and (in the case of return in later stages of life) pension system sustainability.

Disaggregation by *educational level* helps to assess the risk of "brain drain" and the resultant loss of innovation. Information on work skills demanded by the labour market means that conclusions might be reached concerning: the (un)balancing effect of potential migration on both the skills' mismatch and unemployment in the labour market; the perception of low pay for high-demand professions; the lack of options for youth with specific qualifications, etc.

Coherence: Possibilities for comparison across data sources are limited due to different time frames, geographical levels and questions asked. Comparisons across countries/regions/municipalities for analytical purposes are recommended.

Further critical comments: -

HU: Indicator 105: Regional product (Regional GDP) per capita

Data collected/Definitions

GDP per capita is based on purchasing power parity (PPP). PPP GDP is gross domestic product converted to international dollars using purchasing power parity rates. An international dollar has the same purchasing power in GDP terms as the U.S. dollar has in the United States. GDP at purchaser's prices is the sum of gross value added by all resident producers in the economy plus any product taxes and minus any subsidies not included in the value of the products. It is calculated without making deductions for depreciation on fabricated assets or for the depletion and degradation of natural resources. Data are in current international dollars based on the 2011 ICP round.

Data availability and Collection process

Variant 1) World Bank Data are available for requested years at the national level.
For information on data collection, see
https://data.worldbank.org/indicator/NY.GDP.PCAP.PP.CD?end=2017&start=2010&year_high_desc=true
Variant 2) HCSO National Accounts data for the years 2010-2016 at NUTS3, NUTS2 and national levels.

Development process

Variant 1) Data available.Consulting data at
https://data.worldbank.org/indicator/NY.GDP.PCAP.PP.CD?end=2017&start=2010&year_high_desc=true
Variant 2) Data available: Indicator values can be requested directly from HCSO

Data use restriction, coverage and frequency of production

Variant 1) Data are public.
Coverage is not interpretable in this case.
On the frequency of updating data, please consult
https://data.worldbank.org/indicator/NY.GDP.PCAP.PP.CD?end=2017&start=2010&year_high_desc=true
Variant 2) Data are public
Coverage is not interpretable in this case.
Data for a given year is finalized in December of the following year.

Testing

Relevance: National GDP per capita (or its regional counterpart) reflects the living standards in the respective geographic area. High GDP per capita is usually associated with strong economies, booming production, and developed social services. GDP gives an approximation of economic activity, when perceived as low it may serve as a push factor stimulating out-migration, while serving as a pull factor and stimulating in-migration in the opposite case.

Accuracy:

- **Variant 1)** World Bank data should be considered accurate at the national level. For more details on the methodology and quality of World Bank data, see https://data.worldbank.org/indicator/NY.GDP.PCAP.PP.CD?end=2017&start=2010&year_high_desc=true
- **Variant 2)** The national accounts data from the HCSO, the inputs as well as the output database, are examined by the quality management system of the HCSO. As a result, the dataset is considered to be accurate.

Timeliness:

- **Variant 1)** Data production is based on the data production system of national statistical institutes. For more details on updating World Bank data, please consult https://data.worldbank.org/indicator/NY.GDP.PCAP.PP.CD?end=2017&start=2010&year_high_desc=true
- **Variant 2)** Data for each year is updated in December of the following year. After that, data can be accessed and used by decision-makers.

Accessibility:

- **Variant 1)** Data accessible at https://data.worldbank.org/indicator/NY.GDP.PCAP.PP.CD?end=2017&start=2010&year_high_desc=true
- **Variant 2)** Data accessible upon request

Interpretation: *On average*, *countries with higher GDP per capita experience higher rates of net migration per 1000 population*, namely the difference between incoming and leaving flows of migrants is positive, and the rate of this difference relative to the population is higher in countries with a higher GDP.
GDP figures, however, need to be interpreted in comparison to those of neighbouring, or other reference countries. A country with a relatively high GDP per capita and high GDP growth rates, is more likely to be perceived as a country with a strong economy and good economic prospects, and thus act as a magnet for immigrants.
The indicator assumes an equal division of GDP figures in the population, in other words, inequality of income and wealth distribution across population groups is not accounted for. High GDP figures do not always coincide with high levels of subjectively perceived living standards, and SWB indicators and trust should supplement the analysis.
Coherence: National level data can be compared across data sources. Unsurprisingly, the WorldBank uses data from national statistical offices; thus, data are similar.
7. Further critical comments: -

HU: Indicator 107: Business demography: number of active enterprises; by size, ownership (local/foreign owned)
Data collected/Definitions
Business demography refers to the population of firms, taking into consideration such aspects as the total number of active enterprises in the business economy, their birth rates and death rates. The number of active enterprises (in the business economy) is an important indicator. An active enterprise is one that had either turnover (totals invoiced by the unit) or employment at any time during the reference period.
Data availability and Collection process
Data are available for the years 2010-2016 at national, NUTS3 (Csongrád megye) and LAU2 (Szeged) levels. Data disaggregated by ownership are only available for 2016. Data are register-based.
Development process
Data available: Indicator values can be requested directly from HCSO
Data use restriction, coverage and frequency of production
Data are public. Data cover enterprises active in the national territory of Hungary. Data updating is continuous.
Testing
Relevance: The indicators of business demography by analogy to human demographic processes reflect the total number of active enterprises in the business economy, their birth and death rates; in other words, they describe the population size of firms, and the share of firms created and closed each year. Information on the number of employees and the types of legal organisation and industry is collected. These figures help in analysing the propensity to start a new business, and the contribution of newly opened firms to job creation. **Accuracy**: Data are from the HCSO Business Register, the inputs as well as the output database are examined by the quality management system of the HCSO. As a result, the dataset are considered to be accurate. **Timeliness**: Data updating is continuous **Accessibility**: Data accessible upon request **Interpretation**: Disaggregation by *industry* helps to assess which sectors of the economy are growing or contracting, and which specific skills within the labour force are in demand or may become redundant. Information on the *size* of the business and the *nationality* of the owner can be used to address the discussion on ethnic entrepreneurship. In some cases, entrepreneurship becomes a major route for the labour market integration of migrants; thus, any analysis should be linked to a discussion on immigrant discrimination, recognition of formal qualifications, and measures to promote local language proficiency. **Coherence**: Data are internally coherent; comparisons with other sources are not applicable. Comparisons across countries/regions/municipalities for analytical purposes are recommended **Further critical comments**: -

HU: Indicator 123: Disposable household income per capita

Data collected/Definitions

Disposable household income refers to the amount of money that households have available for spending or saving after income distribution measures have taken effect; the latter comprising payment of taxes, social contributions, and social benefits received. Per capita refers to the disposable household income per person/inhabitant of the area.

Data availability and Collection process

Variant 1) Data from YOUMIG small-scale survey are available only for 2018 and only at LAU2 level.
Data from the YOUMIG Survey were collected from among approx. 800 respondents, aged 15-34, using quota sampling.
Variant 2) Data from SILC are available for the years 2010-2016 at NUTS2 and national levels.
SILC are carried out using stratified sampling that is representative at the NUTS2 and national levels (weighted estimation).

Development process

Variant 1) Indicator development: Data query from the YOUMIG survey dataset, using the following variables:

- Thinking of all possible sources of income, what is your household income after deductions for income tax, National Insurance etc. that you received in the month prior to the interview?
- Number of household members

Variant 2) Indicator development: Data query from the HCSO SILC database. Using the following variables:

- Household incomes
- Number of household members

Data use restriction, coverage and frequency of production

Variant 1) Data are public.
Data covers only the respondent in the sample.
The YOUMIG survey can be repeated when municipalities need it.
Variant 2) Data are fully restricted. For more information, contact the data owner.
Data cover the members of surveyed households in the municipality/region/country.
SILC data are produced on a yearly basis.

Testing

Relevance: The Disposable household income refers to the amount of money that households have available for spending or saving after income distribution measures have taken effect. Thus, the measure reflects individual/family living standards. In the majority of countries under consideration, wages and salaries are the main component of household incomes. Higher living standards can be a factor that dissuades individuals and families from out-migration and emigration, as well as a pull factor stimulating both the immigration of foreign nationals and the return home of emigrants.

Accuracy:

- **Variant 1)** Due to coverage issues related to quota sampling, valid statements based on the survey can be made only with reference to the respondents. Data should not be generalised. Thus, accuracy is limited.
- **Variant 2)** Data from SILC: Since indicator values are based on weighted estimation, the accuracy is limited.

Timeliness:

- **Variant 1)** Data collection was carried out in autumn 2018. Final dataset is ready to be used. The YOUMIG survey can be repeated when municipalities need it.
- **Variant 2)** Data production is on a yearly basis.

Accessibility:

- **Variant 1)** Data accessible upon request
- **Variant 2)** Data available, but not in the public domain. For more information, contact the data owner.

Interpretation: Indicator figures should be considered relative to a measure of the living standards in the society/municipality. Disposable household income can be compared to national/regional poverty thresholds, which in turn can be used to determine whether a household belongs to a poor population stratum. Poverty is one of the conditions that prevent individuals from living healthy and fulfilling lives and being socially included

within a society. In recession conditions, *women* and *youth (including children),* and *populations with a migratory background*, are more likely to be vulnerable to poverty. Poverty may also stimulate household indebtedness, which despite stimulating household consumption in the short run, leads in the case of long-term debt, to negative consequences for the economy and GDP growth.

The lower the disposable household income in the population, relative to that of neighbouring countries, the higher the rate of emigration (or temporary out-migration) as a coping mechanism, often resulting in divided families and children left behind.

Coherence: Possibilities for comparison across data sources are limited due to different time frames, geographical levels and questions asked. Comparisons across countries/regions/municipalities for analytical purposes are recommended.

Further critical comments: -

HU: Indicator 137: Population, by activity status, by sex, 5 year intervals, national/foreign

Data collected/Definitions

In the labour market, the population aged 15 years and above (typically 15-64 y.o.) is divided into the economically active and inactive. The former group includes the employed (civilian employment plus the armed forces), and the latter, the unemployed. The current, economically active population is called the labour force.

The indicator is calculated as a percentage of active and inactive people respectively. Therefore, the number of active people is divided by the total population aged 15-64.

Data availability and Collection process

Variant 1) Data from 2011 census and Microcensus 2016 are available only for the years 2011 and 2016, respectively. Data disaggregated by age, activity status and citizenship (national/foreign) are available at national, NUTS3 (Csongrád megye) and LAU2 (Szeged) levels.

The 2011 census was carried out among the total of households residing in Hungary (full enumeration). Microcensus 2016 – Basic questionnaire – was carried out among a 10% sample of household residing in Hungary that is representative at the LAU1 level (weighted estimation).

Variant 2) Data from LFS is available for the requested years. Data disaggregated by age, activity status and citizenship (national/foreign) are only available at national and NUTS2 (Dél-Alföld) levels.

LFS is carried out using stratified sampling that is representative at the national level (weighted estimation)

Development process

Variant 1) Indicator development: Data query from the HCSO Census and Microcensus databases (Basic questionnaire). Using the following variables:

- Household address (Basic questionnaire);
- Date of birth of household members (Basic questionnaire);
- Activity status of household members (Basic questionnaire);
- Country of citizenship of household members (Basic questionnaire);

Variant 2) Indicator development: Data query from the HCSO LFS database. Using the following variables:

- Household address;
- Citizenship;
- Activity status;
- Date of birth

Data use restriction, coverage and frequency of production

Variant 1) The data are public.

Data covers the members of surveyed households in the municipality/region/country.

Census data are produced every ten years. Microcensus data are produced every ten years – between two full-scope censuses.

Variant 2) Data are only partly public: Data on foreign citizens at the NUTS2 level are restricted. For more information, contact the data owner.

Data cover the members of surveyed households in the municipality/region/country.

LFS data are produced on a quarterly basis.

Testing

Relevance: The economically inactive population includes schoolchildren, students, pensioners, and housewives or husbands (provided that they are neither working nor available for work); some of these groups may be of working-age. In the case of youth, the NEET part of the population (young people in neither employment, nor education nor training) warrant special attention due to the obvious loss of human capital and productivity.

The economically active part of the population serves as an approximation of labour supply in a country/region/municipality; the labour force being the part of the population involved in the production and distribution of goods and services, or actively searching for employment.

Accuracy:

- **Variant 1)** Data from the Census are considered the most accurate among all data sources, due to the fact that the 2011 census was a full-scope survey, covering all households in the country, and the whole process of producing data was examined by the quality management system of the HCSO. Even

Microcensus data are less accurate, since they based on weighted estimations.

- **Variant 2)** Data from LFS are based on weighted estimation, thus, accuracy is lower. Further, LFS data at the NUTS2 level and data on foreign citizens at the national level are of limited reliability (due to low sample size)**.**

Timeliness:

- **Variant 1)** Data production frequency is very low. Between Censuses and Microcensuses, it is recommended that other data sources be used.
- **Variant 2)** Data production is on a quarterly basis

Accessibility:

- **Variant 1)** Data accessible upon request
- **Variant 2)** Data accessible upon request with the exception of NUTS2 level data on foreigners, which is available, but not in the public domain. For more information, contact the data owner.

Interpretation: Disaggregation by *country of citizenship*, and in addition by *sex***,** allows the behaviour of the native and foreign population to be compared (e.g., by providing data on whether native and foreign women have the same opportunities and motivations to work in the labour market). A growing share of economic activity in the working age population might indicate a shrinking labour force, leading to slower economic development and productivity losses, a higher burden on social services and diminished income tax revenue collection. Separate estimations by *age group* can help identify groups with a low activity share, that is, those disproportionally affected by labour market segmentation. Where the disadvantaged group consists of youth, measures leading to the acquisition of skills demanded by the labour market, and the facilitation of the transition from study to work should be undertaken.

Coherence: The two variants can be contrasted with each other; however, comparisons are limited due to low availability in terms of geographical level or time. The comparison reveals differences across sources.
Comparisons across countries/regions/municipalities for analytical purposes are recommended.

Further critical comments: The fact that significant differences exist across data sources raises doubts about the reliability and assumed accuracy of sample-based weighted estimations and makes it difficult to decide which data source should be prioritized.

HU: Indicator 180: Workforce in healthcare/Shortage of work in healthcare/Healthcare workforce gap
Data collected/Definitions
Health workers are "all people engaged in actions whose primary intent is to enhance health".
Data availability and Collection process
Variant 1) Data from Eurostat database are available only for the years 2010-2015 (and in one case until 2016). Data available at the national level and NUTS2 levels. Eurostat prepares estimations based on input data provided by national statistical institutes. **Variant 2)** Data from the HCSO Health database are available for the requested years at the national, NUTS3 and LAU2 levels. Data are register-based
Development process
Variant 1) Data available: accessible in Eurostat database (please consult https://ec.europa.eu/eurostat/data/database) **Variant 2)** Data available: Indicator values can be requested directly from HCSO
Data use restriction, coverage and frequency of production
Variant 1) The data are public. For more details, see https://ec.europa.eu/eurostat/data/database **Variant 2)** The data are public, updated on a yearly basis.
Testing
Relevance: Indicators of healthcare provision are linked to a region's level of urban development and attractiveness since they directly affect the quality of life at the local level (and serve as a pull factor attracting migrants while providing reasons for the native population to remain). Moreover, gaps in health care provision and accompanying migration schemes stimulate the in-migration of healthcare and medical professionals; this serves as a huge pull factor directing relevant migration flows into more economically stable and wealthier countries of the region. For sending countries, gaps in the relevant segments of the labour market appear, while the attractiveness of the receiving areas is further established. **Accuracy**: • **Variant 1**) Data published by Eurostat are based on the register-based input data sent by the HCSO, corrected and examined by the Eurostat quality management system. For more details, please consult the Eurostat database. • **Variant 2)** Data on healthcare from HCSO are based partly on registers and partly on surveys. The quality of the inputs, as well as the output database is examined by the quality management system of HCSO. As a result, while actual data might differ from the registered data, the dataset is considered to be accurate. **Timeliness**: • **Variant 1)** Onthe frequency of updating Eurostat data, please consult the Eurostat database. • **Variant 2)** Data are produced on a yearly basis. For each year, data are finalized in the month of August of the following year. After that, data can be accessed and used by decision-makers. **Accessibility**: • **Variant 1)** Data accessible in the Eurostat database https://ec.europa.eu/eurostat/data/database • **Variant 2)** Data accessible upon request **Interpretation**: An increasing number of doctors per 100,000 (or per 1,000) inhabitants is associated with an increasing quality of life in a municipality/region, in addition to higher health-care coverage for the population. **Coherence**: Possibilities for comparison across data sources are limited due to different time frames, geographical levels and questions asked. Comparisons across countries/regions/municipalities for analytical purposes are recommended. **Further critical comments**: -

HU: Indicator 13: Top 5 destinations by size of diaspora

Data collected/Definitions

Country of residence of household members abroad.
IOM: There is no widely accepted universal definition of "diaspora"; in fact, the term is used to signify many different phenomena. A working definition of diasporas proposed by IOM and MPI in a recent handbook is "Emigrants and their descendants that live outside their countries of birth or ancestry, either on a temporary or permanent basis, yet still maintain affective and material ties to their countries of origin."

Data availability and Collection process

Variant 1) Data from Microcensus 2016 are available only for the year 2016, at the national, NUTS3 (Csongrád megye) and LAU2 (Szeged) level.
Variant 2) Mirror statistics are available at the national level from two sources: a) UNDP data available for 2010, 2015 and 2017; b) Eurostat data available for the requested years (including 40 destination countries - overseas excluded)
Variant 3) Data are available at the HCSO Demographic database for the requested period at national, NUTS3 (Csongrád megye) and LAU2 (Szeged) levels.
Migration flow data from the HCSO Demographic database are register-based

Development process

Variant 1) Indicator development: Data query from the HCSO and Microcensus databases. Using the following variables:

- Household address (in the municipality of Szeged) [municipality of residence] – (basic questionnaire
- Country of residence of household members abroad (if applicable) [names of countries] (complementary questionnaire)

Variant 2) Data available: Please consult
a)http://www.un.org/en/development/desa/population/migration/data/estimates2/estimates15.shtml
and b)https://ec.europa.eu/eurostat/data/database
Variant 3) Data available: Indicator values can be requested directly from HCSO

Data use restriction, coverage and frequency of production

Variant 1) The data are public.
Data covers the members of surveyed households in the municipality/region/country.
Microcensus data are produced every ten years – between two full-scope censuses.
Variant 2) The data are public. For more details, see
a)http://www.un.org/en/development/desa/population/migration/data/estimates2/estimates15.shtml
and b)https://ec.europa.eu/eurostat/data/database
Variant 3) The data are public.
Data covers the yearly (de-)registered international/internal emigration flows
Data produced on a yearly basis: for each year updated in the month of July of the following year.

Testing

Relevance: Data related to emigration are mainly relevant in countries/municipalities characterised by emigration and return migration. TOP destinations reveal which countries are most attractive to out-migrants, thus indicating the need for specialised policies concerning these destinations.
Accuracy:

- **Variant 1**) Data from Microcensus 2016: Since indicator values are based on weighted estimation, the accuracy is limited.
- **Variant 2)** Mirror statistics based on destination countries' immigrant stock data appear as the most accurate.Data published a) by UNDP are estimates based on official statistics on the foreign-born or the foreign population; for more details see http://www.un.org/en/development/desa/population/migration/data/estimates2/estimates15.shtml; andb) by Eurostat are based on immigrant stock data from national statistical offices (only 40 countries, overseas excluded), corrected and examined by the Eurostat quality management system. For more details, please consult the Eurostat database https://ec.europa.eu/eurostat/data/database
- **Variant 3)** The emigration flow data from HCSO demographic database is register-based. The quality of the inputs as well as of the output database is examined by the quality management system of the

HCSO. However, flow data is a poor substitute for data on stocks, thus accuracy is limited.

Timeliness:

- **Variant 1)** Data production frequency is very low. Between Censuses and Microcensuses, it is recommended that other data sources be used.
- **Variant 2)** a) Data are generally produced for every 5 years (preliminary data was published for 2017). b) On the frequency of updating Eurostat data, please consult the Eurostat database
- **Variant 3)**Data are produced on a yearly basis. For each year, data are finalized in the month of July of the following year. After that, data can be accessed and used by decision-makers.

Accessibility:

- **Variant 1)** Data accessible upon request.
- **Variant 2)** Mirror statistics accessible at http://www.un.org/en/development/desa/population/migration/data/estimates2/estimates15.shtml and https://ec.europa.eu/eurostat/data/database
- **Variant 3)** Data accessible upon request

Interpretation: Connections to the country of origin for immigrants (diaspora mechanism) act as mechanisms for emigration and its impacts on regional and local development. The larger the diaspora, the greater the chance it will attract further emigration from the sending country due to the network effect; at the same time, a higher demand for education in the sending country can be expected. Diaspora can contribute to local development through remittances (especially if invested and not consumed), direct investment in the sending country and sending municipality in particular, and transfer of knowledge and know-how to the sending country.

Coherence: Possibilities for comparison across data sources are limited due to different time frames, geographical levels and characteristics (stock vs. flow data). Comparisons across countries/regions/municipalities for analytical purposes are recommended.

Further critical comments: -

HU: Indicator 129: Debt-to-Income-Ratio

Data collected/Definitions

Household financial obligations (debt) consist of mortgages, consumer credit (loans for the purchase of consumer goods and services), non-mortgage loans (loans to purchase financial securities) and trade payables, which are typically the liabilities of unincorporated businesses.
Household indebtedness is typically measured as the ratio of household debt to disposable income.
High levels of indebtedness in households lead to high levels of financial vulnerability to economic shocks (e.g. job loss).
Since households are not required to pay off all their debt in a given year, what matters more in relation to financial vulnerability is not so much the level of household debt relative to disposable income, but rather the capacity of households to meet their debt service obligations.

Data availability and Collection process

Variant 1) Data from YOUMIG small-scale survey are available only for 2018 and only at LAU2 level.
Data from the YOUMIG Survey were collected from among approx. 800 respondents, aged 15-34, using quota sampling.
Variant 2) Data from SILC are available for the years 2010-2016 at NUTS2 and national levels.
SILC is carried out using stratified sampling that is representative at the NUTS2 and national levels (weighted estimation).

Development process

Variant 1) Indicator development: Data query from the YOUMIG survey dataset, using the following variables:

- Do you have home loan repayments? What is the monthly repayment for the borrowed loan?
- Do household members have any other debt? (mortgage on another property, consumer credit, student loan, etc) What is the monthly repayment for these loans?
- Thinking of all possible sources of income, what is your household income after deductions for income tax, National Insurance etc. that you received in the month prior to the interview?

Variant 2) Indicator development: Data query from the HCSO SILC database. Using the following variables:

- Household incomes
- Total mortgage monthly payments (average/median)
- Non-mortgage monthly payments (average/median)

Data use restriction, coverage and frequency of production

Variant 1) Data are public.
Data covers only the respondent in the sample.
The YOUMIG survey can be repeated when municipalities need it.
Variant 2) Data are fully restricted. For more information, contact the data owner.
Data cover the members of surveyed households in the municipality/region/country.
SILC data are produced on a yearly basis.

Testing

Relevance: Working abroad and sending remittances is a common strategy for migrants to reduce indebtedness in households and family members staying in the home country. Thus, the debt-to-income ratio in sending countries should be analysed in relation to the migration aspirations of local youth. In receiving countries, the ratio might be related to the high purchase prices of housing.

Accuracy:

- **Variant 1)** Due to coverage issues related to quota sampling, valid statements based on the survey can be made only with reference to the respondents. Data should not be generalised. Thus, accuracy is limited.
- **Variant 2)** Data from SILC: Since indicator values are based on weighted estimation, the accuracy is limited.

Timeliness:

- **Variant 1)** Data collection was carried out in autumn 2018. Final dataset is ready to be used. The YOUMIG survey can be repeated when municipalities need it.
- **Variant 2)** Data production is on a yearly basis.

Accessibility:

- **Variant 1)** Data accessible upon request
- **Variant 2)** Data available, but not for the public domain. For more information, contact the data owner.

Interpretation: The debt-to-income ratio is understood as the ratio of household debt to disposable income. Often it is mortgage payments that constitute the biggest share of this debt. High property prices require larger mortgages, and thus higher monthly payments. The desire to acquire a property might become a push factor stimulating out-migration. A high debt-to-income ratio due to low incomes can also be considered a push factor favouring migration to a municipality/country with higher (perceived) living conditions. A high debt-to-income ratio indication can be a result of (a) *low incomes*, (b) *high indebtedness of households*, for example, due to low - with respect to living standards - incomes, (c) *high property prices*. Thus, access to the separate components of the ratio might be useful to assess the source of the ratio value and its changes.

Coherence: Possibilities for comparison across data sources are limited due to different time frames, geographical levels and questions asked. Comparisons across countries/regions/municipalities for analytical purposes are recommended.

Further critical comments: -

HU: Indicator 202: Price-to-Income ratio (housing prices)

Data collected/Definitions

Price-to-income ratio is the basic affordability measure for housing in a given area. It is the ratio of median house prices to median familial disposable incomes, expressed as a percentage or as years of income.
Calculation/ clarification of terms: to estimate the ratio, a median price (in the centre of the housing price distribution) of local housing and median disposable household income in the region/municipality is needed.
For operational reasons, in the YOUMIG context, a price-to-income ratio can be calculated for: (i) 1-bedroom apartment or studio; (ii)2-bedroom apartment.

Data availability and Collection process

Variant 1) Data from YOUMIG small-scale survey are available only for 2018 and only at LAU2 level.
Data from the YOUMIG Survey were collected from among approx. 800 respondents, aged 15-34, using quota sampling.
Variant 2) Data from SILC are available for the years 2010-2016, disaggregated by number of rooms (1 or 2) at NUTS2 and national levels.
SILC is carried out using stratified sampling that is representative at the NUTS2 and national levels (weighted estimation).
Variant 3) Data composed using two sources: a) housing prices from the Register of National Tax and Custom Administration (NTCA); b) data on disposable household incomes based on SILC.
As a result, data are available for the years 2010-2016, disaggregated by size (square metres) available at the national, NUTS3 (Csongrád megye) and LAU2 (Szeged) levels.

Development process

Variant 1) Indicator development: Data query from the YOUMIG survey dataset, using the following variables:

- Thinking of all possible sources of income, what is your household income after deductions for income tax, National Insurance, etc. that you received in the month prior to the interview?
- In your opinion, how much is the market value of your home?

Variant 2) Indicator development: Data query from the HCSO SILC database. Using the following variables:

- Household incomes
- Number of rooms in property
- Estimated market value of property

Variant 3) Indicator development: Data query from the HCSO SILC database and (NTCA). Using the following variables:

- Household incomes (SILC)
- Size of property (NTCA)
- Price of property (NTCA)

Data use restriction, coverage and frequency of production

Variant 1) Data are public.
Data cover only respondents in the sample.
The YOUMIG survey can be repeated when municipalities need it.
Variant 2) Data are fully restricted. For more information, contact the data owner.
Data cover the members of surveyed households in the municipality/region/country.
SILC data are produced on a yearly basis.
Variant 3) Data are public. NTCA data cover all properties sold in country/region/municipality in a given year – yearly updated. SILC data cover surveyed households. SILC data are produced on a yearly basis.

Testing

Relevance: Affordability of housing is one of the important characteristics of urban/municipality attractiveness. High housing prices might become a push factor for migration decision-making.
Accuracy:

- **Variant 1**) Due to coverage issues related to quota sampling, valid statements based on the survey can be made only with reference to the respondents. Data should not be generalised. Thus, accuracy is limited. Further, no data on the size of properties are available.
- **Variant 2)** Data from SILC: Since indicator values are based on weighted estimation, the accuracy is limited.

- **Variant 3)** Housing prices based on register data are considered the most accurate (containing information)

Timeliness:

- **Variant 1)** Data collection was carried out in autumn 2018. Final dataset is ready to be used. The YOUMIG survey can be repeated when municipalities need it.
- **Variant 2)** Data production are on a yearly basis.
- **Variant 3)** Data can be produced on a yearly basis.

Accessibility:

- **Variant 1)** Data accessible upon request
- **Variant 2)** Data available, but not in the public domain. For more information, contact the data owner.
- **Variant 3)** Data accessible upon request

Interpretation: The higher the price-to-income ratio, the less affordable the housing; thus a longer time period is needed in to purchase a house/flat.

Basic economic theory suggests immigration increases demand for housing, which in turn raises house prices. In contrast, high house prices relative to wages might boost outmigration, which on the longer run might decrease demand for housing, leading to lower house prices. House prices may be one of the most important determinants of migration for young people, influencing their decisions at a stage of life when aspirations to create a home and family are strongest.

Coherence: Possibilities for comparison across data sources are limited due to different time frames, geographical levels and questions asked. Comparisons across countries/regions/municipalities for analytical purposes are recommended.

Further critical comments: -

3.4. Romania

Elaboration: IOS & LP

Based on documents prepared by the Romanian Institute for Research on National Minorities (RIRNM), with input provided by the Municipality of Sfântu Gheorghe

Version: revised version, December 2018

Set of new indicators:

No	Indicator	type
1	Population; by sex, age, country of citizenship (CoC)	core
7	In-migration, internal/international	core
11	Top-5 sending countries	core
12	Out-migration, internal/international	core
14	Number of returnees registered, sex, education level	core
51	Completed education of persons aged 15-34, by sex, age groups, country of citizenship (native/foreign)	core
53	Student outbound mobility ratio at tertiary level; by sex	core
63	Skill-level of return migrants	core
71	Subjective well-being [in the population]	core
73	Tolerance towards foreigners (foreign workers)	core
75	Intentions to migrate within next five years, [if possible] intended destination, duration of absence	core
105	Regional GDP per capita (NUTS3), GDP per capita	core
107	Business demography: number of active enterprises; by size (number of employees), ownership (local/foreign owned)	core
123	Disposable household income per capita	core
137	Population, by activity status; by age (5-y. intervals), national-foreign	core
180	Workforce in healthcare/Shortage of work in healthcare/Healthcare workforce gap	core
13	Top5 countries by size of diaspora	extra

RO: Indicator 1. Population; by sex, age, country of citizenship (CoC)

Data collected/Definitions

Population on 1 January (stock): based on the concept of usual resident population, namely the number of inhabitants of a given area on 1 January of the year in question for selected years.

Data availability and Collection process

The indicator as described in the title (breakdown according to CoC or CoB) is only available for the national level, the best source being Eurostat (migr_pop1ctz).

For lower levels (NUTS3, LAU2) no breakdown according to country of citizenship or birth is available. This means that in the template only the parts referring to Romanian citizens are complete below national level.

Variant 1) The only source capable of yielding the indicator in the requested form (breakdown also by CoC or CoB) is the Census. However, the 2011 census results are increasingly outdated and cannot be compared to anything. Furthermore, Romania is not an immigrant receiving country, or more precisely, immigration has been negligible to date. Consequently, a breakdown according to CoC or CoB would not be of much use even if it were available. For smaller territorial units (except for very large cities) many cells would contain very few cases. Census data at this level of breakdown could be purchased from the NIS, or alternatively the 10% sample of the 2011 Romanian census, available at IPUMS International (https://international.ipums.org/international-action/sample_details/country/ro#ro2011a) could be used to generate such an indicator at NUTS3 (county) level, but not at LAU2 level.

Variant 2) The Inspectorate-General for Immigration (IGI) was informed on this matter, and in response (concerning rather indicator 11) only data for the top 10 counties of Romania with the highest number of immigrants were provided, the other countries being merged into the "other counties" category; Covasna county, where YOUMIG local partner municipality Sfântu Gheorghe is located was also subsumed into this residual category. It should be emphasised that the IGI was specifically asked whether data were available at LAU2 level, but absolutely no reference was made to this question in the (otherwise rather laconic) response, which consisted of several tables: 1. Top 10 (+others) immigrant-sending countries with permanent residence in Romania; 2. top 10 (+others) immigrant-sending countries with temporary residence in Romania; 3. top 10 (+others) counties of Romania with the highest number of immigrants with permanent residence (but no crosstab with sending country); 4. top 10 (+others) counties of Romania with the highest number of immigrants with temporary residence (but no crosstab with sending country); and 5. a crosstab of Romania's counties (but only 10% 5 + others) with sending countries (immigrants with permanent and temporary permits summed).

Development process

Variant 1) Data should be requested
Variant 2) Data available on request at the IGI

Data use restriction, coverage and frequency of production

The data are public.
Data produced on a yearly basis.

Testing

Relevance: Basic demographic data (resident population by age, sex and citizenship) from a time perspective is of crucial importance in countries/municipalities characterised by immigration, emigration or return migration in order to identify trends in population change as much as specific challenges and opportunities emerging in labour markets and social welfare systems at the local and national level. Further, data is relevant from the perspective of education, the sustainability of social security systems or the planning of projects etc.

Accuracy:

- **Variant 1)** The data are elaborate and of a good quality.
- **Variant 2)** The dataset is considered to be of a good quality. The Romanian NIS is recording two types of data about the population: Resident population and population by domicile. Unfortunately, resident population is not available at LAU2 level, the lowest level of breakdown being NUTS3. This is unfortunate because the resident population figures come closer to the real population size (they are also more in line with the findings of the 2011 census, which we added for comparison, but only for

the total population figures section at the beginning).Due to this lack of data, in the data template the population by domicile by 1 January (NIS Tempo database table POP107D[7]was used, this data being identical to Eurostat - demo_r_pjangrp3) for the LAU2 level and the resident population by 1 January (Tempo table POP105A) for the national and NUTS3 levels. Data in table POP107D is obviously an overestimation of the LAU2 level resident population. There is a slight difference between Eurostat and NIS (POP105A) data, the difference can be explained by the fact that 2014-16 data are revised

Timeliness:

- **Variant 1)** Data collection frequency is low, once per 10 years.
- **Variable 2)** Data are produced on a yearly basis.

Accessibility:

- **Variant 1)** Data accessible upon request
- **Variant 2)** Data are public

Interpretation: The *age composition* of the population is necessary to determine the dependency ratio, which provides insights into the number of people of nonworking age (aged 0-14 or 65+) compared to the number of those of working age (aged 15-64). As such, the population indicator is an important tool as in addition to calculating the dependency ratio, it aids discussion concerning the sustainability of the social security system. Aging is one of the most important challenges that most Danube region countries face. Education policies should take into account the share of the young (15-34) and under-age (0-14) population, while acknowledging that information on the active-age population is necessary to formulate labour market policies. Further, age composition also affects natality, mortality and marriage. *Sex composition* is important for planning healthcare and social provisions related to childbearing and for policies targeting gender equality. Composition by citizenship reflects the presence of immigration and as such, it could indicate the need for socio-economic and labour market integration policies as well as efforts to strengthen social cohesion. **Coherence**: Data are internally coherent; comparisons with other sources are not applicable. Comparisons across countries/regions/municipalities for analytical purposes are recommended. **Further critical comments**: -

[7] The new website of the Tempo database of the Romanian NIS is no longer supporting specific links that would point to specific tables or queries. Consequently one must search manually for the tables we have indicated at the website: http://statistici.insse.ro:8077/tempo-online/#/pages/tables/insse-table

RO: Indicator 7: In-migration, internal/international
Data collected/Definitions
International immigration: annual migration flows, namely the number of persons establishing their usual residence in the territory of a country for a period that is, or is expected to be, at least 12 months, having previously been usual resident in another country. Internal immigration is the movement of people from one defined area to another within a country**.**
Data availability and Collection process
NIS, National Statistical Institute. For two definitions of immigrants, permanent and temporary. **Definition of immigrants by permanent residence**: "persons (Romanian citizens, foreign citizens or non-citizens) who immigrate in Romania. Immigration is the action by which one person ceases to have his or her permanent residence on the territory of another country and establishes his or her permanent residence in Romania. The person's permanent residence in Romania is the address where he/she declares to have the main dwelling, printed as such on its identity card and registered by the administrative bodies of the State." (NIS Tempo database, table POP310E) **Definition of temporary immigrants:** "persons who immigrate to Romania for a period of at least 12 months. Immigration means the action by which a person establishes his or her usual residence in the Romanian territory for a period that is, or is expected to be, of at least 12 months, having previously been usually resident in another country. Usual residence means the place at which a person normally spends the daily period of rest, regardless of temporary absences for purposes of recreation, holiday, visits to friends and relatives, business, medical treatment or religious pilgrimage." (NIS Tempo database, table POP321C) That is: permanent immigrants establish their domicile in Romania and renounce the one from their country of origin, while temporary immigrants only establish their usual residence in Romania.
Development process
The Romanian NIS records and publishes data on two types of immigrants: immigrants with permanent residence and immigrants with temporary residence. The data should be requested by NIS. The number of permanent internal migrants cannot be accessed directly, it must be calculated by subtracting the number of permanent international migrants (Table POP310E, available at municipality level) from the number of those who established permanent residence or domicile (which includes both internal and external migrants, Table pop307A – number of established domiciles, including external migration, once again available at municipality level). (The additional table in the data template is not an auxiliary table, but the one that is accessible through table POP307A of the Tempo system) The same cannot be done for temporary immigrants. The logic to follow would be the same, to subtract the number of temporary international migrants (table POP321C) from the number of all persons who established temporary residence in the respective administrative unit (table POP304B). However, while table POP304B is available at municipality (Lau2) level, POP321C is only published at NUTS3 level (county). Consequently, for temporary migrants we can only data at national and NUTS3 level can be reported
Data use restriction, coverage and frequency of production
The data are public. Data covers the yearly registered international/internal migration flows Data produced on a yearly basis.
Testing
Relevance: Immigration flow data – both internal and international – are mainly relevant in countries/municipalities characterised predominantly by immigration. Beyond natality and mortality, migration flows determine the size of a population, thus their changes in time constitute a crucial element for planning policies related to the population, including economic and labour market policies, education, healthcare and social provisions etc. Further, where immigration is present, social cohesion and integration policies might be needed. **Accuracy**: The dataset is considered to be accurate. **Timeliness**: Data are produced on a yearly basis. Data for temporary migrants are available starting from 2012. **Accessibility**: Data accessible and public. NIS Tempo database, tables POP304B (establishments of residence) and POP321C (temporary in-migration, based on data received from the Inspectorate-General for Immigration and the Directorate for Personal Records and Database Administration, as well as mirror statistics from foreign NIS and Eurostat)

Interpretation: Immigration flow data indicate the attractiveness of the municipality/region/country for the inhabitants of the same or other countries. Growing immigration can be a sign that the area is perceived by potential immigrants as a relatively developed and prosperous destination characterised by higher wages and better living conditions. In contrast, the low level or lack of international and/or internal immigration might be related to the relative underdevelopment of the area as perceived by potential immigrants. In economies characterised by an aging population and high levels of labour demand, immigration is usually perceived as an advantageous phenomenon. Immigration of highly educated and/or skilled workers is often interpreted as a "brain gain", and is considered highly beneficial for economies of receiving countries.
Coherence: Data are internally coherent; comparisons with other sources are not applicable. Comparisons across countries/regions/municipalities for analytical purposes are recommended
Further critical comments: we have contacted both the Inspectorate-General for Immigration (IGI) and the Directorate for Personal Records and Database Administration (DPRDA), and have received responses from both institutions, though these were not very helpful.
As already stated at indicator 1, the IGI sent us tables with data at the NUTS3 level, the sum of both permanent and temporary migrants, stock data reflecting the situation as of 30 September 2018. They have failed, however, to react in any way to our inquiry about the availability of data at LAU2 level and about either stocks or flows for previous years.
The DPRDA practically passed the ball over to the NIS in their response, arguing the following: "Taking into consideration the permanent dynamics of the actualization of the [population registry], the central database being updated on a daily basis, we specify the following: the [available] statistical indicators reflect the current situation with regard to the personal data of Romanian citizens, and at this time it is impossible to obtain information that would reflect the situation characteristic for the period of interest." (We have inquired about the existence of yearly data, both stock and flow, concerning immigration and return migration, for the period 2010-2018.)

RO: Indicator 11: Top-5 sending countries
Data collected/Definitions
TOP- 5 origin countries of international immigrants using flow data (for a definition see indicator 7) and stock (for a definition see indicator 1) and based on the concept of country of birth or country of citizenship.
Data availability and Collection process
Use of Eurostat data. For annual flows Table migr_imm1ctz and for stocks migr_pop1ctz (both record immigrant by Country of Citizenship). The data are available only at national level.
Development process
Data accessed directly from the Eurostat website.
Data use restriction, coverage and frequency of production
The data are public. Data cover the yearly registered international migration flows on the one hand and registered resident population on the other. Data produced on a yearly basis
Testing
Relevance: Sending countries are mainly relevant in countries/municipalities characterised predominantly by immigration. Knowledge on the origin of migrants is needed to create well-targeted cultural and integration policies. **Accuracy**: The stock and flow datasets are considered to be accurate. **Timeliness**: Both stock and flow data are produced on a yearly basis. **Accessibility**: Data accessible and public **Interpretation**:Knowledge of the origin and size of the largest immigrant communities and diasporas of foreign citizens in a municipality/region/country - based on the number of arrivals per year or number of residents from a given sending country - is indispensable for decision makers preparing policy measures aimed at strengthening social cohesion and enhancing the social and labour market integration of immigrants. Changes over time in the most important diasporas -approximated by groups of different migration backgrounds – can signal which immigrant groups require prioritisation in local development strategies, as much as define relationships at policy level with sending countries, thereby enhancing transnational, economic and social ties. **Further critical comments**: Alternative data sources 1. Romanian NIS has data on permanent immigrants too (Tempo database table POP310D - Permanent immigrants by country of origin), however, there are many differences between Eurostat and NIS data. The latter underestimates all, except Moldova. We used the Eurostat data, because of obvious validity problems with the NIS data. Furthermore, this data is also only available at national level. Alternative data sources 2. We have contacted both the Inspectorate-General for Immigration (IGI) and the Directorate for Personal Records and Database Administration (DPRDA) hoping to obtain some data also at lower levels of aggregation, and we have received responses from both institutions, though these were not very helpful. The DPRDA basically passed the responsibility over to the NIS, as discussed at indicator 7. The IGI sent us some data, but these are completely not in line with the Eurostat data. Still, it should be mentioned that some data, in theory, are available at NUTS3 level, but the response of the IGI only included the top 10 Romanian counties with the highest number of immigrants, while Covasna county (where YOUMIG local partner Sfântu Gheorghe is located is subsumed into the “other counties” category. With regard to this indicator we are inclined to believe that the lack of data at lower levels of aggregation than the national one could be due to an MLG problem; however, we also suspect that legislative change would be required to solve this.

RO: Indicator 12: Out-migration, internal/international
Data collected/Definitions
International emigration: annual migration flows, namely the number of persons establishing their usual residence in the territory of a country for a period that is, or is expected to be, at least 12 months, having previously been usual resident in another country. Internal emigration is the movement of people from one defined area to another within a country**.**
Data availability and Collection process
Data available at the National Statistical Office
Development process
The Romanian NIS records and publishes data on two types of emigrants: emigrants with permanent residence and emigrants with temporary residence. However, neither type can be accessed directly; it must be calculated from two other data sources. **Definition - Emigrants by permanent residence:** "Persons (Romanian citizens) who emigrate abroad. Emigration is the action by which one person ceases to have his or her permanent residence in Romania and establishes his or her permanent residence on the territory of another country. The person's permanent residence in Romania is the address where he/she declares to have the main dwelling, printed as such on its identity card and registered by the administrative bodies of the State." **Definition - Temporary emigrants:** "Persons who emigrate abroad for a period of at least 12 months. Emigration means the action by which a person who had previously been usually resident in the territory of Romania, ceases to have his/her usual residence in Romania for a period that is, or is expected to be, of at least 12 months. Usual residence means the place at which a person normally spends the daily period of rest, regardless of temporary absences for purposes of recreation, holiday, visits to friends and relatives, business, medical treatment or religious pilgrimage." That is, permanent emigrants establish their domicile abroad while renouncing their old domicile in Romania. Temporary emigrants refer to people who have only been usually resident in Romania and give up that residence when emigrating abroad. It does not necessarily involve establishing a domicile abroad either. Similarly to immigration (indicator 7), the number of internal emigrants can be established only by subtracting the number of international migrants from the total number of persons who change domicile. (the additional table in the data template is not an auxiliary table, but the one that is accessible through table POP308A of the Tempo system) Just as with emigrants, the number of permanent internal migrants cannot be accessed directly, it has to be calculated by subtracting the number of permanent international immigrants (Table POP310E, available at municipality level) from the number of departures from the domicile (Table pop308A – which once again includes both internal and external migration, and is available at municipality level). The same cannot be achieved for temporary emigrants, because the data on temporary emigration (POP320C) are not published at LAU2 level. Moreover, the numbers are available only since 2012 for the NUTS3 level too.
Data use restriction, coverage and frequency of production
The data are public. Data cover the yearly (de-)registered international/internal emigration flows Data produced on a yearly basis.
Testing
Relevance: Emigration flow data – both internal and international – are mainly relevant in countries/municipalities characterised by emigration and return migration. Beyond natality and mortality, migration flows determine the size of a population, thus their changes over time constitute a crucial element in planning policies related to the population, including economic and labour market policies, education, healthcare and social provisions. Where emigration is a common life strategy for the population, and especially for youth, challenges – related to the aging societies in the Danube region – are set to emerge, such as the

deteriorating sustainability of the social welfare system and growing unsatisfied labour demand.
Accuracy: The dataset is considered to be accurate.
Timeliness: Data are produced on a yearly basis.
Accessibility: Data accessible on request, public
Interpretation: Emigration flow data indicate the potential for the municipality/region/country to maintain its population.
Growing emigration can suggest that the area is perceived by potential emigrants as a relatively underdeveloped and less prosperous area characterised by lower wages and worse living conditions. In economies characterised by aging populations and high levels of labour demand, emigration is seen as a serious challenge threatening the sustainability of the whole economy and society. However, beyond population loss and "brain drain", outmigration might also bring benefits to origin countries: emigrants often send considerable amounts of remittances, some make investments back home or they might return bringing new skills and know-how. Relationships with strong diasporas in destinations are potentially beneficial and offer opportunities to enhance transnational businesses, etc.
Coherence: Data are internally coherent; comparisons with other sources are not applicable. Comparisons across countries/regions/municipalities for analytical purposes are recommended
Further critical comments: Alternative data sources: as already noted with regard to other indicators, we contacted the Directorate for Personal Records and Database Administration (DPRDA) hoping to obtain some data also at lower levels of aggregation, but with little success.
However, the DPRDA pointed out some useful information in their response, namely that permanent emigrants are in theory monitored by the Directorate General for Passports. However, in the population registry only those Romanian citizens will be recorded as having a permanent address in a foreign country, who have declared such an address upon filing a request for a Romanian passport. However, the law does not require citizens to declare this upon applying for passports; consequently, the validity of the data is questionable. We quote: "According to legislation in force, Romanian citizens are not bound to mention their country of domicile when applying for a passport, for which reason the number of persons holding such documents does not reflect the real number of Romanian citizens who reside in reality abroad. […] Romanian citizens who [actually] reside abroad but do not hold passports in which their country of domicile is recorded, are still recorded as residing in the country [Romania], in the territorial unit of their domicile in Romania." We might continue the argument of the DPRDA by adding that rather few Romanian citizens apply for passports nowadays, because a passport is no longer needed for travelling in the EU, and a number of other countries can be visited only with an ID card. Furthermore, many Romanian citizens do not give up their domicile in Romania when moving abroad; thus, they might report their Romanian domicile instead of the one from abroad when applying for a passport. Consequently, the statistics of the DPRDA and NIS seriously underestimate the number of Romanian citizens living abroad, and we now have an official document from the DPRDA that admits this.

RO: Indicator 14: Number of returnees registered, sex, education level
Data collected/Definitions
Number of residents born in reporting country, immigrated from abroad per year (flow) after a short or long term stay in another country, by sex and educational attainment
Data availability and Collection process
Data are available at Eurostat. The only data available are what the LP has suggested: Eurostat Immigration by sex, citizenship and broad group of country of birth (migr_imm6ctz), total immigration flows by country of birth-reporting country
Development process
Data are available directly from Eurostat
Data use restriction, coverage and frequency of production
The data are public. Collected yearly. No disaggregation by educational levels is available.
Testing
Relevance: Data on the flow of return migrants are mainly relevant in countries/municipalities characterised by return migration and emigration. While in several aspects the relevance of return migration flows is similar to that of immigration flows, there are also some striking differences: return migration can also soften the challenges posed by outmigration and reduce population losses due to emigration; however, their integration appears less challenging for local and national governments than that of foreign citizens. **Accuracy**: Data are considered to be accurate **Timeliness**: Yearly 2011-2016 **Accessibility**: Disaggregated data accessible for 2012-2016 **Interpretation**: Return migration, especially of the skilled and highly educated, is seen as one of the most beneficial forms of migration. It is usually interpreted as a *triple win solution* in which both sending and destination countries, as well as the migrants themselves profit from the experience: 1) migrants earn higher wages and acquire marketable skills largely unavailable in their origin countries; 2) destination countries in need of migrant labour can benefit from the immigration of foreign workers without the costs of integration policies; 3) origin countries can gain from receiving remittances, while return migration reduces the costs of losing population. Returners might also bring home financial, human and social capital that can be used productively in origin countries. Outmigration and return migration of a person that occurs repeatedly is referred to as re-migration, circular migration, etc; and in the case of skilled workers, “brain circulation” is often mentioned. This circularity of migrants is commonly thought to be the most beneficial and desirable form of migration. **Coherence:** The three variants can be contrasted with each other; however, comparisons are limited due to low availability in terms of disaggregation, geographical level or time. The comparison suggests that register data (including Eurostat) underestimate the number of returners, especially in the beginning of the requested period. Comparisons across countries/regions/municipalities for analytical purposes are recommended. **Further critical comments**: As alternative data sources we have asked the Inspectorate-General for Immigration (IGI) and the Directorate for Personal Records and Database Administration (DPRDA) whether they have anything on return migration. No mention whatsoever has been made in the response of either of the two institutions of returnees. We also contacted the NIS – Directorate-General for Demographics and Social Statistics, but received no response.

RO: Indicator 51: Completed education of persons aged 15-34, by sex, age groups, country of citizenship (native/foreign)
Data collected/Definitions
Educational attainment of the native and foreign resident population aged 15-34: 1) Low education: Less than primary, primary and lower secondary education (ISCED 2011 levels 0-2); 2) Medium education: Upper secondary and post-secondary non-tertiary education (ISCED 2011 levels 3 and 4); 3)High education: Tertiary education (ISCED 2011 levels 5-8)
Data availability and Collection process
Data available at National Statistical Office for the census year (2011)
Development process
We assume that the point of having this indicator for the YOUMIG project is the native/foreign distinction. However, Romania is not an immigrant receiving country, or more precisely, immigration has been negligible so far. Consequently, a breakdown according to CoC or CoB would not say too much even if it were available. For lower levels of disaggregation like NUTS3 and LAU2 (except for very large cities) many cells would contain only very few cases. Census data at this level of breakdown could be purchased from the NIS, or alternatively the 10% sample of the 2011 Romanian census, available at IPUMS International (https://international.ipums.org/international-action/sample_details/country/ro#ro2011a) could be used to generate such an indicator for NUTS3 (county) level, but not for LAU2 level. However, we find the 2011 census results rather outdated and anyway, the data could not be compared to anything, consequently we do not see any point in purchasing the data. Readily accessible but is only for national level, and without the native/foreign distinction (http://www.recensamantromania.ro/wp-content/uploads/2015/05/vol3_t22.xls). Note, however, that also in this file the three levels of educational level do not add up to the grand total…
Data use restriction, coverage and frequency of production
Variant 1) The data should be requested **Variant 2)** The data should be requested from the data owner
Testing
Relevance: The educational attainment of the population is relevant in countries characterised by immigration, emigration and return migration. People possessing a higher education are more productive at work, and their earnings potential, life expectancy and general health tend to be better. Further, their life satisfaction is higher than those who are less skilled. Thus, while high levels of educational attainment in the population positively affect the wider economy, the health system, as well as individual and psychosocial characteristics beyond economic and labour-related outcomes also benefits. **Accuracy**: The educational attainment data from the Census is considered the most accurate among all data sources. **Timeliness**: Data are collected once in ten years. Last data collection performed in 2011. **Accessibility**: NUTS3, LAU2 level data should be purchased from IPUMS. **Interpretation**: Educational attainment clearly affects economic growth positively. People with higher levels of educational attainment are more productive and more creative, thus contributing to (local) development. Further, they earn and consume more, further enhancing the economy. They even pay more taxes and because it is less likely that they are unemployed, they make less use of the social welfare system. Their health and well-being is also higher, that is, they use the healthcare system less frequently. In general, improving the educational attainment of the population – in both natives and foreigners – is desirable. **Coherence:** The variants can be contrasted with each other; however, comparisons are limited due to low availability in terms of disaggregation, geographical level or time. The comparison reveals differences between the results obtained from different sources Comparisons across countries/regions/municipalities for analytical purposes are recommended. **Further critical comments**: -

RO: Indicator 53: Student outbound mobility at tertiary level, by sex
Data collected/Definitions
Share of students participating in the international tertiary mobility/exchange study programmes as a share of all students enrolled in tertiary education in reporting country by sex (male/female)
Data availability and Collection process
Data received from Kvantum Research National level data available at the UNESCO website
Development process
Variant 1) Data source 2: UNESCO education statistics, available at http://data.uis.unesco.org/ The drawback is that it is only available at national level, and cannot be broken down, even according to sex. **Variant 2)**. Kvantum research conducted a telephone survey in 2014 with young people who graduated from secondary school between 2004 and 2013 in the city of Sfântu Gheorghe (sample size 607) This data source also allows breaking down the indicator according to sex.
Data use restriction, coverage and frequency of production
Variant 1) Data are public and produced on a yearly basis. **Variant 2)** Data are restricted to YOUMIG-partners.
Testing
Relevance: Student migration is a common form of moving abroad among young people, thus it is relevant for the whole Danube Region, in countries characterised by immigration, emigration or return migration. Temporal stays abroad with the aim of studying (e.g. 1-2 semesters, or full educational programmes) are beneficial for sending communities, however students might decide to stay in destinations and use their newly obtained skills and knowledge there instead of returning home. **Accuracy**: • **Variant 1:** Data from SILC are based on weighted estimation thus accuracy is lower. • **Variant 2:** Data are considered to have high accuracy. **Timeliness**: • **Variant 1:** Data are produced once a year since 2010. • **Variant 2:** Data were produced once in 2014. Telephone survey was conducted with N = 607. **Accessibility**: • **Variant 1:** Data are accessible upon request. • **Variant 2:** Data are only available for the municipality of Sfântu Gheorghe. **Interpretation**: Students might decide to study abroad with the expectations of learning new languages, profiting from better educational opportunities and better job offers, creating international social networks that might be useful for professional life or others. Study abroad is usually highly valued in hometowns. However, attracting well-educated young professionals to return to their sending communities is often not an easy task, when most of their newly obtained knowledge can be better used in destinations that generally offer higher wages, higher living standards and jobs better suited to the aspirations of young professionals. **Coherence**: Data are internally coherent; comparisons with other sources are not applicable. Comparisons across countries/regions/municipalities for analytical purposes are recommended. **Further critical comments:** Alternative data sources: we also had in mind other possible sources, for instance, contacting high schools or school inspectorates; however, we realized that it could not be done in a systematic manner as certain schools would be reluctant to cooperate. A more realistic way to obtain further data is to repeat the phone survey in Sfântu Gheorghe. This will be done within YOUMIG. The scarcity of data with regard to this indicator is also an MLG problem, as was discussed in the ASW. Overall, 3% of those who enrolled at a university attended a higher education institution located in foreign countries. 6.9% of those who were still studying at the time of data collection were residing abroad, which points to increasing trends for outbound mobility in the city of Sfântu Gheorghe.

RO: Indicator 63: Skill-level of return migrants
Data collected/Definitions
Stock of return migrants are the expats returning to the reporting country. The skills are approximated by education level (primary or lower, secondary, tertiary) (see also indicator 14 and 51).
Data availability and Collection process
Data for the municipality are available only for the year of survey (year 2018)
Development process
The SSS contained the following items that could be used to obtain the data: • Sex • Year of Birth • Country of Birth • Have you ever lived outside [country] continuously for at least 1 year? What is the highest degree or level of schooling you have completed?
Data use restriction, coverage and frequency of production
Data are public.
Testing
Relevance: Data on the stock of return migrants are mainly relevant in countries/municipalities characterised by return migration and emigration. While in several aspects the relevance of the numbers of returners is similar to that of immigrants, there are also some striking differences: return migration can also soften the challenges posed by outmigration and reduce population losses due to emigration; however, their integration appears less challenging for local and national governments than that of foreign citizens. **Accuracy**: It has been suggested that some data on return migrants could be obtained through the SSS. While this data is provided in the excel template, we believe that they have very serious validity problems given the very low proportion of respondents (7.1%) who reported having spent more than one year abroad. Consequently,margins of error must be quite high. **Timeliness**: Data collection was carried out in Fall 2018. Final dataset is ready to be used. YOUMIG survey can be repeated whenmunicipalities need it. **Accessibility**:Data are public **Interpretation**: Return migration, and especially return migration of the skilled and highly educated is seen as one of the most beneficial forms of migration. It is usually interpreted as a *triple winsolution* in which both sending and destination countries, as well as the migrants themselves profit from the experience: 1) the migrants have an opportunity to earn higher wages than would be possible in their origin countries; 2) destination countries in need of migrant labour can benefit from the immigration of foreign workers without the costs of integration policies; 3) origin countries might benefit from receiving remittances, while return migration reduces the costs of population loss. Returners might also bring home financial, human and social capital that can be used in a productive way in origin countries. **Coherence:** Only one dataset available. Comparisons across countries/regions/municipalities for analytical purposes are recommended. **Further critical comments**: There is absolutely nothing available on this in the official statistics. We have asked the Inspectorate-General for Immigration (IGI) and the Directorate for Personal Records and Database Administration (DPRDA) whether they have anything on return migration. No mention whatsoever has been made in the response of either of the two institutions of returnees.

RO: Indicator 71: [SUBJ] [Average] Subjective well-being in the population

Data collected/Definitions

Subjective well-being (SWB) is often - though not exclusively - measured in terms of life satisfaction; namely it seeks an individual answer to the question: "All things considered, how satisfied are you with your life as a whole these days?"

Subjective well-being encompasses three distinct but complementary sub-dimensions: 1) *life satisfaction*, based on an overall cognitive assessment; 2) *affects*, or the presence of positive or negative feelings; and 3) *eudemonics* - the feeling that one's life has a purpose.

Life satisfaction considers how a person evaluates his or her life, where the term "life" reflects the person's existence as a whole. Therefore, the variable reflects the respondent's opinions and feelings with regard to his or her level of life satisfaction. In particular, it focuses on how a person is feeling "these days" rather than specifying a longer or shorter period. Thus, the intention is not to uncover the current emotional state of the respondent but rather to make a cognitive and affective evaluation of his or her life.

Data availability and Collection process

Variant 1) Data from YOUMIG small-scale survey is available only for 2018. Data disaggregated by country of birth is available only at LAU2 level.

Variant 2) Romanian Election Study, available for 2012, 2014. 2016. It has data on overall satisfaction with life and from one year on satisfaction with accommodation and (a proxy for) personal relationships. The question has the same format as the one used in the YOUMIG SSS (0-10 scale). The website of the RES project is https://resproject.wordpress.com/ , but the datasets are not available online.

Development process

Variant 1) (only municipality level)

Development process:

Data sorted from the SSS provided by the YOUMIG project;

- Overall, how satisfied are you with your life nowadays?
- Overall, how satisfied are you with the financial situation of your household?
- Overall, how satisfied are you with your accommodation?
- Overall, how satisfied are you with your personal relationships?

Variant 2) Data obtained from the Romanian Election Study

Data use restriction, coverage and frequency of production

Variant 1) Data are public.

Data cover only the respondent in the sample.

The YOUMIG survey can be repeated when municipalities need it.

Variant 2) Data are available on request

Testing

Relevance: Subjective well-being indicators are closely related to the topics of social capital (including social norms, trust, and spirit of cooperation) and the quality of life (covering multiple dimensions of life including wealth, employment, physical and mental health, safety, freedom, among others). Even such a general measure as *satisfaction with life as a whole* can help to predict migration behaviour since; on average, dissatisfied people migrate more often. The perceptions and opinions of potential migrants relative to their individual "life situations" are important to social scientists in the field of migration since they arguably have as big an influence on any decision to migrate as assessments based primarily on objective/material factors. Subjective well-being indicators are usually collected at national and regional level, in household surveys and specialised polls.

Accuracy:

- **Variant 1)** Due to coverage issues related to quota sampling, valid statements based on the survey can be made only with reference to the respondents. Data should not be generalised. Thus, accuracy is limited.
- **Variant 2)** The data should be accurate at national level

Timeliness:

- **Variant 1)** Data collection was carried out in autumn 2018. Final dataset is ready to be used. YOUMIG survey can be repeated when municipalities need it.

- **Variant 2)** Data production is on a once in two years basis

Accessibility:

- **Variant 1)** Data accessible
- **Variant 2)** The website of the RES project is https://resproject.wordpress.com/ , but the datasets are not available online.

Interpretation: A high SWB indicator level suggests that life and living conditions are perceived favourably by individuals. An increase in the indicator not only signals an improvement in the individual situation, but also in the socio-economic and political environment (e.g. a high level of interpersonal trust in a society, and high living standards, among other factors). Modifications to the survey question allow the assessment of satisfaction levels (and thus, individuals' opinions) on specific life domains and issues, for instance, satisfaction with local services. The SWB indicators at national level, within the EU-27(or 15), can be used as an SWB benchmark in a municipality.

The SWB can be evaluated for different subgroups of a population. Life satisfaction for women is on average lower than that of men; the age-life satisfaction relationship is most often U-shaped; and nationals of post-communist states are on average less satisfied with life than populations of Western European countries. Immigrants are often less satisfied with life than local populations - especially in the first stage after their arrival - due to difficulties with integration, working in occupations that require lower skills than migrants actually possess, loneliness, and so on. Thus, when drawing conclusions on the differences in SWB between locals and immigrants, it is recommended that data be disaggregated for immigrants by length of stay.

Coherence: Possibilities for comparison across data sources are limited. Comparisons across countries/regions/municipalities – especially SILC data – for analytical purposes are recommended.

Further critical comments: -

RO: Indicator 73: [SUBJ] Tolerance towards foreigners (foreign workers)
Data collected/Definitions
Tolerance towards foreigners can be framed as tolerance, or attitudes towards migrants, or more specifically towards migrant workers**.**
Data availability and Collection process
Variant 1) Data from YOUMIG small-scale survey are available only for 2018 and only at LAU2 level. **Variant 2)** Data from Eurobarometer are available online on the Eurostat website **Variant 3)** Data from Eurobarometer, special module Special Eurobarometer 469 from 2017 - Integration of immigrants in the European Union) **Variant 4)** Data are from the Romanian Election Study
Development process
Variant 1) Indicator development: Data query from the YOUMIG survey dataset, using the following variables: • Immigrants take jobs away from natives in the country • A country's cultural life is undermined by immigrants • Immigrants make crime problems worse • Immigrants are a strain on a country's welfare system • In the future the proportion of immigrants will become a threat to society • For the greater good of society it is better for immigrants to maintain their distinct customs and traditions **Variant 2)**Data available online **Variant 3)** Data available online **Variant 4)**Data obtained from the RES;
Data use restriction, coverage and frequency of production
Variant 1) Data available on request. Data covers only the respondent in the sample. YOUMIG survey can be repeated when municipalities need it. **Variant 2)** Data are public **Variant 3)**Data are public. **Variant 4)**Data available on request.
Testing
Relevance: Public opinion and attitudes towards migrants are high on the political agenda of many European countries. Increasing concerns about the integration of migrants in a society might (among other concerns): boost support for parties of the "radical right" and diminish levels of interpersonal trust and collaboration in a society. Further, such concerns might increase the level of hostility in a society (potentially leading to acts of aggression towards migrants being condoned), and increase the chance of discrimination towards migrants in the labour market and everyday situations. This is a sensitive topic, and public opinion can be influenced/distorted by mass media. **Accuracy**: • **Variant 1)** Accuracy is limited. • **Variant 2)** Data should be considered accurate at the national level. • **Variant 3)** Data should be considered accurate at the national level • **Variant 4)** Data should be considered accurate at the national level. **Timeliness**: • **Variant 1)** Data collection was carried out in autumn 2018. Final dataset is ready to be used. YOUMIG survey can be repeated when municipalities need it. • **Variant 2)** Data are collected on a yearly basis. • **Variant 3)** Data collection as a special module • **Variant 4)** Available for 2016 only **Accessibility**: • **Variant 1)** Data accessible upon request • **Variant 2)** Data available online • **Variant 3)**The documentation of Special Eurobarometer is available at

http://data.europa.eu/euodp/en/data/dataset/S2169_88_2_469_ENG, the dataset at https://search.gesis.org/research_data/ZA6927

- **Variant 3)** Data accessible at https://www.europeansocialsurvey.org/
- **Variant 4)** The website of the RES project is https://resproject.wordpress.com/ , but the datasets are not available online.

Interpretation: Low levels of trust towards migrants as a whole, or towards particular ethnic groups, not only negatively impacts the success of integration of the immigrant group, but also limit the opportunities of second-generation migrants (children of immigrants) in such spheres as education and the labour market. Discrimination can be based on visible characteristics such as differences in appearance and/or names. One of the possible consequences of discrimination is an outflow of immigrants from their host country, potentially associated with a loss of human capital, a weakened labour force, a lower income tax collection and similar negative consequences.

Conversely, high levels of trust towards migrants point to: the readiness of a society to support the integration of migrants at the local level, the active introduction of migrants to the local community, as well as the wider population's support of national projects and directives promoting migrant integration.

Coherence: Possibilities for comparison across data sources are limited due to different time frames, and questions asked. Comparisons across countries/regions/municipalities for analytical purposes are recommended.

Further critical comments: -

RO: Indicator 75: Intentions to migrate within next five years, [if possible] intended destination, duration of absence

Data collected/Definitions

Intentions to migrate can be assessed with the help of the following and similar questions:

- Do you intend to leave this country to go and live in another country? (Yes, No, Undecided)
- Do you have specific plans to leave or do you just have a general feeling that you would like to leave? (Specific plans, General feeling)

Where do you think you will go?

Data availability and Collection process

Variant 1) Data from YOUMIG small-scale survey are available only for 2018 and only at LAU2 level.
Variant 2) Romanian Institute for Research on National Minorities, sample survey (Title: Interethnic climate in Romania), 2014
Variant 3) Data from Kvantum survey, sample survey (Title: Future perspectives in Romania), 2018

Development process

Variant 1) Indicator development: Data query from the YOUMIG survey dataset, using the following variables:

- Ideally, if you had the opportunity, would you like to move to another country, or to another municipality in this country?

Variant 2) Data obtained from RIRNS
Variant 3) Data obtained from Kvantum survey, private pooling company

Data use restriction, coverage and frequency of production

Variant 1) Data are available on request.
Data covers only the respondent in the sample.
YOUMIG survey can be repeated when municipalities need it.
Variant 2) The data are public.
Variant 3) Data on request only for YOUMIG-partners

Testing

Relevance: The Danube Region is an area with deep historical and economic relations between countries. With the fall of the communist regimes in Eastern Europe and the enlargement of the European Union, migration flows within the region have been intensifying. Up to 40% of all immigrants in each country come from other countries of the region. The migrant pool is becoming younger and more educated; youth in the region are a highly dynamic group accounting for more than half of incoming migrants. A decision to emigrate can impact both sending and receiving countries.

Accuracy:

- **Variant 1)** Due to coverage issues related to quota sampling, valid statements based on the survey only be made with reference to the respondents. Data should not be generalised. Thus, accuracy is limited.
- **Variant 2)** Data should be considered accurate at national level.
- **Variant 3)** Accuracy might be limited. Covers only LAU2 level.

Timeliness:

- **Variant 1)** Data collection was carried out in autumn 2018. Final dataset is ready to be used. YOUMIG survey can be repeated when municipalities need it.
- **Variant 2)** 2014
- **Variant 3)** 2018

Accessibility:

- **Variant 1)** Public
- **Variant 2)** Public
- **Variant 3)** Only for YOUMIG-partners

Interpretation: Although intentions to migrate are not always realised, increasing levels of youth migration may indicate that the social, economic and sometimes political conditions in the country of origin do not match the ambitions of young people, for example, in terms of availability of jobs, low wages, and low satisfaction with local educational programmes.

To understand better which population subgroups are more likely to emigrate, additional information is

needed. Those who report undertaking *active measures*, such as looking for a job abroad, and devising a *specific plan* are more likely to emigrate than those who simply consider this option a hypothetical. Intended *temporary migration* raises issues such as the reintegration of returnees, recognition of academic qualifications, the increasing number of transnational families, and (in the case of return in later stages of life) pension system sustainability.
Disaggregation by *educational level* helps to assess the risk of "brain drain" and the resultant loss of innovation. Information on work skills demanded by the labour market means that conclusions can be reached concerning: the (un)balancing effect of potential migration on both the skills' mismatch and unemployment in the labour market; the perception of low pay for high-demand professions; the lack of options for youth with specific qualifications, etc.
Coherence: Possibilities for comparison across data sources: the wording used in these two surveys is not that used in the YOUMIGSSS; however, the results are comparable. In fact, there are three related questions in both surveys: 1. Intentions concerning short-term work abroad; 2. Intentions concerning long-term work abroad; 3. Intentions to move abroad for good. This also means that intentions regarding internal migration are not covered, but the duration of intended absence is arguably better grasped than in the YOUMIG SSS. Comparisons across countries/regions/municipalities for analytical purposes are recommended.
Further critical comments: At the national level, systematic data are not available. To our knowledge, no survey carried out on a regular basis collects information on this indicator.

RO: Indicator 105: Regional product (Regional GDP) per capita

Data collected/Definitions

GDP per capita based on purchasing power parity (PPP). PPP GDP is gross domestic product converted to international dollars using purchasing power parity rates. An international dollar has the same purchasing power in terms of GDP as the U.S. dollar has in the United States. GDP at purchaser's prices is the sum of gross value added by all resident producers in the economy plus any product taxes and minus any subsidies not included in the value of the products. It is calculated without making deductions for depreciation on fabricated assets or for depletion and degradation of natural resources. Data are in current international dollars based on the 2011 ICP round.

Data availability and Collection process

Variant 1) World Bank Data are available for requested years at the national level.
For information on data collection, see
https://data.worldbank.org/indicator/NY.GDP.PCAP.PP.CD?end=2017&start=2010&year_high_desc=true
Variant 2) TEMPO database of NIS, table CON103I (available for 2000-2016). Converted to PPP following World bank methodology by dividing by resident population and using PPP conversion coefficients found on OECD website. Regional GDP only availbale until 2015

Development process

Variant 1) Data available.Consulting data at https://data.worldbank.org/indicator/NY.GDP.PCAP.PP.CD?end=2017&start=2010&year_high_desc=true
Variant 2) Our own computations; we have divided the GDP at NUTS3 level by the population by domicile at NUTS3 level

Data use restriction, coverage and frequency of production

Variant 1) Data are public.
Coverage is not interpretable in this case.
On the frequency of updating data, please consult
https://data.worldbank.org/indicator/NY.GDP.PCAP.PP.CD?end=2017&start=2010&year_high_desc=true
Variant 2) Data are public. Coverage is not interpretable in this case.

Testing

Relevance: National GDP per capita, or its regional counterpart, serve to illustrate the living standards in the respected geographic area. A high GDP per capita is usually associated with strong economies, booming production, and developed social services. GDP gives an approximation of economic activity. When it is perceived as low, it may serve as a push factor and stimulate out-migration, while in the opposite case it may serve as a pull factor and stimulate in-migration.

Accuracy:

- **Variant 1)** World Bank data should be considered accurate at the national level. For more details on the methodology and quality of World Bank data see https://data.worldbank.org/indicator/NY.GDP.PCAP.PP.CD?end=2017&start=2010&year_high_desc=true
- **Variant 2)** The dataset is considered to be accurate.

Timeliness:

- **Variant 1)** Data production is based on the data production system of national statistical institutes. For more details on updating World Bank data, please consult https://data.worldbank.org/indicator/NY.GDP.PCAP.PP.CD?end=2017&start=2010&year_high_desc=true
- **Variant 2)** Yearly production of data needed for computation

Accessibility: *Countries with higher GDP per capita on average experience higher rates of net migration per 1000 population*, namely the difference between the incoming and leaving flows of migrants is positive, and the rate of this difference relative to population numbers is higher in countries with a higher GDP. GDP figures, however, should be interpreted in comparison to those of neighbouring, or other reference countries. A country with a relatively higher GDP per capita, and a high GDP growth rate, is likely to be perceived as a country with a strong economy and good economic prospects, and thus a magnet for immigrants. However, the indicator assumes "an equal division" of GDP figures in the population, in other words, inequality of income

and wealth distribution across population groups is not accounted for. High GDP figures do not always coincide with high levels of subjectively perceived living standards; SWB indicators and trust should supplement the analysis.

- **Variant 1)** Data accessible at https://data.worldbank.org/indicator/NY.GDP.PCAP.PP.CD?end=2017&start=2010&year_high_desc=true
- **Variant 2)** Data available at NIS

Interpretability: *Countries with higher GDP per capita on average experience higher rates of net migration per 1000 population*, namely the difference between the incoming and leaving flows of migrants is positive, and the rate of this difference relative to population numbers is higher in countries with a higher GDP.

The GDP figures, however, should be interpreted in comparison to those of neighbouring, or other reference, countries. A country with a relatively higher GDP per capita, and a high GDP growth rates, is likely to be perceived as a country with a strong economy and good economic prospects, and thus a magnet for immigrants.

The indicator assumes "an equal division" of the GDP figures in the population, in other words, inequality of income and wealth distribution across population groups is not accounted for. High GDP figures do not always coincide with high levels of subjectively perceived living standards, and SWB indicators and trust should supplement the analysis.

Coherence: National level data can be compared across data sources. Unsurprisingly, the World Bank uses data from national statistical offices; thus, data are similar.

Further critical comments: -

RO: Indicator 107: Business demography: number of active enterprises; by size, ownership (local/foreign owned)
Data collected/Definitions
Business demography refers to the population of firms taking into consideration such aspects as the total number of active enterprises in the business economy, their birth rates and death rates. The number of active enterprises (in the business economy) is an important indicator. An active enterprise is an enterprise that had either turnover (totals invoiced by the unit) or employment at any time during the reference period.
Data availability and Collection process
NIS Tempo database Table INT101O (2008-2015), based on data received from The National Trade Register Office. Stock data. Disaggregation is not available. The National Trade Register Office has flow data on the registration and dissolution of businesses, also broken down according to whether there is foreign participation in the share capital. It doesn't have stock data (apart from "false stocks", the dissolved or deleted companies are not taken into account)
Development process
Data available at the National Trade Register Office (Oficiul Național al Registrului Comerțului).
Data use restriction, coverage and frequency of production
Data are public. Data coverflow data on the registration and dissolution of businesses, also broken down according to whether there is foreign participation in the share capital. Strangely, it does not have stock data (apart from "false stocks", the dissolved or deleted companies are not taken into account). Data updating is continuous.
Testing
Relevance: The indicators of business demography by analogy to human demographic processes reflect the total number of active enterprises in the business economy, their birth and death rates; in other words, they describe the population size of firms, and the share of firms created and closed each year. Information on the number of employees and the types of legal organisation and industry is collected. The figures help in analysing the propensity to start a new business, and the contribution of newly opened firms to job creation. **Accuracy**: The dataset is considered to be accurate. **Timeliness**: Data updating is continuous **Accessibility**: Data accessible online **Interpretation**: Disaggregation by *industry* helps to assess which sectors of the economy are growing or contracting, and which specific skills within the labour force will be in demand or become redundant. Information on the *size* of the business and the *nationality* of the owner can be used to address the discussion on ethnic entrepreneurship. In some cases, entrepreneurship becomes a major route for the labour market integration of migrants; thus, any analysis should be joined by a discussion on immigrant discrimination, recognition of formal qualifications, and measures to promote local language proficiency. **Coherence**: Data are internally coherent. Comparisons across countries/regions/municipalities for analytical purposes are recommended **Further critical comments**: The National Trade Register Office (Oficiul Național al Registrului Comerțului) has various statistics about enterprises in Romania. The data that come closest to our domain of interest can be obtained by combining two sources: the monthly flow data on the registration and dissolution of businesses, and the monthly statistics about registered businesses with foreign participation in share capital. Perhaps strangely, no stock data about businesses with foreign participation is to be found on their website (https://www.onrc.ro/index.php/ro/statistici), apart from "false stocks", which means that number of registered businesses is published, but the dissolved or deleted companies are not subtracted from this number. Furthermore, there is no information about the size of the enterprises (number of employees). Further, it is very cumbersome to compile even this existing data to determine the proportion of enterprises with foreign shareholders within all enterprises, because 1)it must be done from Word documents issued monthly, and 2)it has to be done twice: once from the documents about enterprises with foreign shareholders and once from documents about all registered enterprises. Thus, in order to cover a single year, 24 files must

be processed.

Moreover, we believe that this indicator is more helpful for assessing Foreign Direct Investment (FDI) rather than the proportion of enterprises established by persons with an immigrant background. Finally, in Romania immigration is not such a salient issue that the proportion of enterprises established by immigrants would be a particularly useful indicator. Due to these reasons, we decided not to pursue this data source.

RO: Indicator 123: Disposable household income per capita

Data collected/Definitions

Disposable household income refers to the amount of money that households have available for spending or saving after income distribution measures have taken effect; the latter comprising payment of taxes, social contributions, and social benefits received. Per capita refers to the disposable household income per person/inhabitant of the area.

Data availability and Collection process

Variant 1) Data from YOUMIG small-scale survey are available only for 2018 and only at LAU2 level.
Data from the YOUMIG Survey were collected from among approx. 800 respondents, aged 15-34, using quota sampling.
Variant 2) NIS Household Budgets Survey, Tempo database, table BUF105J

Development process

Variant 1) Indicator development: Data query from the YOUMIG survey dataset, using the following variables:

- On average, how much is the monthly income of your household, adding up the incomes of all household members? (RON)
- [for those unwilling to respond to this item above] Into which of the following intervals would the average monthly income of your household fit? (21 intervals, ranging from no income at all to more than 10,000 RON)
- These two items are recoded into a single new variable; for respondents who only reply to the second, close-ended questions at the midpoint of the appropriate interval are taken
- Then, this newly created single variable is divided by the number of persons living in the household.

Variant 2) Data obtained from NIS, Monthly average disposable household income per capita, expressed in RON

Data use restriction, coverage and frequency of production

Variant 1) Data are accessible by request.
Data cover only the respondent in the sample.
YOUMIG survey can be repeated when municipalities need it.
Variant 2) Data are public

Testing

Relevance: Disposable household income refers to the amount of money that households have available for spending or saving after income distribution measures have taken effect. Thus, the measure reflects the individual (family) living standards. In the majority of the countries in consideration, wages and salaries are the main component of household incomes. Higher living standards can be a factor that dissuades individuals and families from out-migration and emigration, as well as a pull factor stimulating the immigration of foreign nationals and the return of home nationals from emigration.

Accuracy:

- **Variant 1)** Due to coverage issues related to quota sampling, valid statements based on the survey can be made only with reference to the respondents. Data should not be generalised. Thus, accuracy is limited.
- **Variant 2)** Data are considered to be accurate.

Timeliness:

- **Variant 1)** Data collection was carried out in autumn 2018. Final dataset is ready to be used. YOUMIG survey can be repeated when municipalities need it.
- **Variant 2)** Data production is on a yearly basis.

Accessibility:

- **Variant 1)** Data accessible by request
- **Variant 2)** Data accessible.

Interpretation: Indicator figures should be considered relative to a measure of the living standards in the society/municipality. Disposable household income can be compared to national/regional poverty thresholds, which can in turn be used to determine whether a household belongs to a poor population stratum. Poverty is one of the conditions that prevent individuals from living healthy and fulfilling life and being socially included within a society. In recession conditions, *women* and *youth (including children),* and *populations with a*

migratory background, are likely to be more vulnerable to poverty. Poverty may also stimulate household indebtedness, which despite stimulating household consumption in the short run, leads in the case of long-term debt, to negative consequences for the economy and GDP growth.
The lower the disposable household income in the population, relative to that of neighbouring countries, the higher the rate of emigration (or temporary out-migration) as a coping mechanism, often resulting in divided families and children left behind.
Coherence: Possibilities for comparison across data sources are limited due to different time frames, geographical levels and questions asked. Comparisons across countries/regions/municipalities for analytical purposes are recommended.
Further critical comments: -

RO: Indicator 137: Population, by activity status, by sex, 5 year intervals, national/foreign
Data collected/Definitions
In the labour market, the population aged 15 years and above (typically 15-64 y.o.) is divided into the economically active and inactive. The former group includes the employed (civilian employment plus the armed forces) and the latter, the unemployed. The current, economically active population is called the labour force. The indicator is calculated as a percentage of active and inactive people respectively. Therefore, the number of active people is divided by the total population of ages 15-64.
Data availability and Collection process
Variant 1)NIS Tempo database and various other publications, based on AMIGO Labour Force Survey data. Data that is not broken down according to native/foreign can be compiled from various publications of the NIS. The source in all cases is AMIGO (Romanian equivalent of LFS). This is why the data is not available for aggregation levels below NUTS2. The number of respondents included for NUTS3 level would be already too low to allow for reasonable margins of error. We have contacted the NIS to inquire about lower levels of disaggregation, but received no answer in more than two months passed. This usually means that the requested data are not available. The source for national level is tables AMG155A and AMG101A of the Tempo database. The rate of active and inactive population must be computed from the two tables, because the AMG155A table, which contains the activity rate on its own is insufficient, as the age groups are different (5-year age groups), and it is impossible to convert the rates without knowing the number of active/inactive persons, which is available in table AMG101A. We have done this computation to obtain the data reported in the template. For NUTS2 level the source is several NIS publications entitled "Forta de munca in Romania – ocupare si somaj" (Labour force in Romania, employment and unemployment). The reports are available at http://www.insse.ro/cms/ro/tags/forta-de-munca-romania-ocupare-si-somaj (for 2012-2016). For 2017, we had to use the Table AMG155E of the Tempo dataset because the analogous publication of the NIS is not freely available but costs 11 euro. Note that the age groups for the regional data are different in 2017. This is due to the different source. Strangely, the 65+ age group is completely missing from this table. We say strangely, because all these databases and publications are based on data obtained through the AMIGO LFS. **Variant 2)** 2011 census results. The advantage of the census data is that it can be broken down according to native/foreign. More precisely, there are two tables of census results that contain the activity structure by age groups of Romanian citizens (vol1_t23) and of foreign citizens who have been residing in Romania for 12 months or more (vol1_t24). Both can be downloaded from http://www.recensamantromania.ro/noutati/volumul/ Table vol1_t23 contains Romanian citizens also broken down by country of birth, while vol1_t24 contains only those who are not Romanian citizens. Consequently, we filled cells for 2011 in three tables: native, COB not Romania, COC not Romania. The drawback of this data is that 1) it is only available for 2011 and due to this it is not really comparable to other years; 2) it is available only at the national level. Census data at this level of breakdown could be purchased from the NIS, or alternatively the 10% sample of the 2011 Romanian census, available at IPUMS International (https://international.ipums.org/international-action/sample_details/country/ro#ro2011a) could be used to generate such an indicator for NUTS3 (county) level, but not for LAU2 level. However, we find the 2011 census results rather outdated and moreover, the data could not be compared to anything; consequently, we do not see any point in purchasing the data.
Development process
Variant 1) Directly collected **Variant 2)**Directly requested
Data use restriction, coverage and frequency of production
Variant 1) Tempo online, based on various datasets obtained from the AMIGO (Romanian LFS). National level:

AMG155A, AMG101A. NUTS 2 level: http://www.insse.ro/cms/ro/tags/forta-de-munca-romania-ocupare-si-somaj (2012-2016); AMG155E (2017).

Variant 2)

Testing

Relevance: The economically inactive population includes schoolchildren, students, pensioners, and housewives or husbands (provided that they are neither working nor available for work); some of these groups may be of working-age. In the case of youth, the NEET part of the population (young people in neither employment, nor education nor training) warrant special attention due to the obvious loss of human capital and productivity.

The economically active part of the population serves as an approximation of labour supply in a country/region/municipality; the labour force being the part of the population involved in the production and distribution of goods and services, or actively searching for employment.

Accuracy:

- **Variant 1)** Based on LFS, weighted data
- **Variant 2)** Accurate

Timeliness:

- **Variant 1)** Data is collected on a yearly basis
- **Variant 2)** Data collection frequency is low. Use of other data sources is recommended.

Accessibility:

- **Variant 1)** Earlier data are available online. The latest data on request, for a fee
- **Variant 2)** On request

Interpretation: Disaggregation by the *country of citizenship*, and in addition by *sex*, allows the behaviour of the native and foreign population to be compared (e.g., providing data on whether native and foreign women have the same opportunities and motivations to work in the labour market). A growing share of economic activity in the working age population may indicate a shrinking labour force, leading to slower economic development and productivity losses, a higher burden on social services and diminished income tax revenue collection. Separate estimations by *age group* can help identify age groups with a low activity share, that is, those disproportionally affected by labour market segmentation. Where the disadvantaged group consists of youth, measures leading to the acquisition of skills demanded by the labour market, and the facilitation of the transition from study to work should be undertaken.

Coherence: The two variants can be contrasted with each other, however, comparisons are limited due to low availability in terms of geographical level or time. The comparison reveals differences across sources

Comparisons across countries/regions/municipalities for analytical purposes are recommended.

Further critical comments: If the main point is the native/foreign breakdown, then only the 2011 census could be considered as a data source, but the data is not readily accessible except for at national level. Romania is not an immigrant receiving country, or more precisely, immigration has been negligible so far. Consequently, a breakdown according to native/foreign would not say too much even if it were available. For lower levels of disaggregation like NUTS3 and LAU2 (except for very large cities) many cells would contain only very few cases.

RO: Indicator 180: Workforce in healthcare/Shortage of work in healthcare/Healthcare workforce gap
Data collected/Definitions
Health workers are "all people engaged in actions whose primary intent is to enhance health".
Data availability and Collection process
Variant 1) Eurostat database/health **Variant 2)** NIS has data on the number of medical personnel, down to LAU2 level. This includes four types of specialists: physicians, dentists, pharmacists and personnel with secondary education training (mostly nurses). The data reported in the first table in the data template refers to these four categories summed.
Development process
Variant 1) Data available directly **Variant 2)** Consequently, we have decided to compute two additional indicators: the number of all medical personnel/1000 inhabitants and the number of physicians/1000 inhabitants. For this, we have used the same sources regarding the size of the population as in indicator 1. Consequently, we have to point out that for the LAU2 level we used the population by domicile (which overestimates the real population), while for NUTS3 and the national level the resident population.
Data use restriction, coverage and frequency of production
Variant 1) Data are public **Variant 2)** Estimates based on publicly available data
Testing
Relevance: Indicators of healthcare provision are linked to a region's level of urban development and attractiveness since they directly affect the quality of life at the local level (and serves as a pull factor that attracts migrants while providing reasons for the native population to remain). Moreover, gaps in health care provision and accompanying migration schemes stimulate the in-migration of healthcare and medical professionals; this serves as a huge pull factor directing relevant migration flows into more economically stable and wealthier countries of the region. For sending countries, gaps in the relevant segments of the labour market appear, while the attractiveness of the receiving areas is further established. **Accuracy**: • **Variant 1)** The dataset is considered to be accurate at national level. • **Variant 2)** The estimates are considered to be accurate at national level. **Timeliness**: • **Variant 1)** Yearly, 2010 - 2016 • **Variant 2)** Yearly, 2010 - 2017 **Accessibility**: • **Variant 1)** Data available online https://ec.europa.eu/eurostat/web/health/health-safety-work/data/database • **Variant 2)** Data accessible, but should be estimated **Interpretation**: An increasing number of doctors per 100,000 (or per 1,000) inhabitants is associated with an increasing quality of life in a municipality/region, in addition to higher health care coverage for the population. **Coherence**: Possibilities for comparison across data sources are limited due to different time frames, geographical levels and questions asked. Comparisons across countries/regions/municipalities for analytical purposes are recommended. **Further critical comments**: We were also contemplating using an indicator about job vacancies in the health care sector. This is available through the NIS Tempo platform at table LMV102B (Job vacancies by macro regions, development regions, activities of the national economy at the level of CANE Rev.2 sections, the relevant CANE rev. 2 section being Q HUMAN HEALTH AND SOCIAL WORK ACTIVITIES). However, this indicator is only available at NUTS 2 level. Eventually, we renounced on this because we found the original and derived indicators from data source 1 satisfactory, and furthermore, in Romania the lack of medical personnel cannot be considered a relevant pull factor for immigration given that Romania remains a country receiving few migrants.

RO: Indicator 13: Top 5 destinations by size of diaspora

Data collected/Definitions

Country of residence of household members abroad.
IOM: There is no widely accepted universal definition of "diaspora"; in fact, the term is used to signify many different phenomena. A working definition of diasporas proposed by IOM and MPI in a recent handbook is "Emigrants and their descendants that live outside their countries of birth or ancestry, either on a temporary or permanent basis, yet still maintain affective and material ties to their countries of origin."

Data availability and Collection process

Variant 1) Data from YOUMIG small-scale survey are available only for 2018 and only at LAU2 level.
Data from the YOUMIG Survey was collected from among approx. 800 respondents, aged 15-34, using quota sampling.
Variant 2) Eurostat data available for the requested years at the national level. USA and Canada, two other possible target-countries are not involved, however, they are far below in 2011 and 2016

Development process

Variant 1) Indicator development: Data query from the YOUMIG survey dataset.
Variant 2) Data available: Please consult
https://ec.europa.eu/eurostat/data/database

Data use restriction, coverage and frequency of production

Variant 1) Data are accessible by request.
Data cover only the respondent in the sample.
YOUMIG survey can be repeated when municipalities need it.
Variant 2) The data are public. For more details, see
https://ec.europa.eu/eurostat/data/database

Testing

Relevance: Data related to emigration are mainly relevant in countries/municipalities characterised by emigration and return migration. TOP destinations reveal which countries are most attractive to out-migrants, thus indicating the need for specialised policies in these destinations.

Accuracy:

- **Variant 1**) Due to coverage issues related to quota sampling, valid statements based on the survey can be made only with reference to the respondents. Data should not be generalised. Thus, accuracy is limited.
- **Variant 2)** Mirror statistics based on destination countries' immigrant stock data appears the most accurate.Data published by Eurostat are based on immigrant stock data from National Statistica Offices, corrected and examined by Eurostat quality management system. For more details, please consult the Eurostat database https://ec.europa.eu/eurostat/data/database

Timeliness:

- **Variant 1)** Data collection was carried out in autumn 2018. Final dataset is ready to be used. YOUMIG survey can be repeated when municipalities need it.
- **Variant 2)** On the frequency of updating Eurostat data, please consult the Eurostat database

Accessibility:

- **Variant 1)** Data accessible upon request.
- **Variant 2)** Mirror statistics accessible at https://ec.europa.eu/eurostat/data/database

Interpretation: Connections to the country of origin for immigrants (diaspora mechanism) act as mechanisms for emigration and its impacts on regional and local development. The larger the diaspora, the greater the chance it will attract further emigration from the sending country due to the network effect; at the same time, a higher demand for education in the sending country can be expected. Diaspora can contribute to local development through remittances (especially if invested and not consumed), direct investment in the sending country and sending municipality in particular, and transfer of knowledge and know-how to the sending country.

Coherence: Possibilities for comparison across data sources are limited due to different time frames, geographical levels and characteristics (stock vs. flow data). Comparisons across countries/regions/municipalities for analytical purposes are recommended.

Further critical comments: -

3.5. Slovenia

Elaboration: IOS & LP

Based on texts prepared by:

The Institute for Economic Research (IER) with input by the Maribor Development Agency (MRA)

Slovenia: Set of new indicators

No	Indicator	type
1	Population; by sex, age, country of citizenship (CoC)	core
7	In-migration, internal/international	core
11	Top-5 sending countries	core
12	Out-migration, internal/international	core
14	Number of returnees registered, sex, education level	core
51	Completed education of persons aged 15-34; by sex, age groups, country of citizenship (native/foreign)	core
53	Student outbound mobility ratio at tertiary level; by sex	core
63	Skill-level of return migrants	core
71	Subjective well-being [in the population]	core
73	Tolerance towards foreigners (foreign workers)	core
75	Intentions to migrate within next five years, [if possible] intended destination, duration of absence	core
105	Regional GDP per capita (NUTS3), GDP per capita	core
107	Business demography: number of active enterprises; by size (number of employees), ownership (local/foreign owned)	core
123	Disposable household income per capita	core
137	Population, by activity status; by age (5-y. intervals), national-foreign	core
180	Workforce in healthcare/Shortage of work in healthcare/Healthcare workforce gap	core
89	Segregation index by neighbourhoods	extra
153	Top-5 activities where immigrants are employed	extra

Sl: Indicator 1: Population; by sex, age, urban/rural, country of citizenship (CoC)
Data collected/Definitions
Population on 1 January (stock): based on the concept of usual resident population, namely the number of inhabitants of a given area on 1 January of the year in question for selected years.
Data availability and Collection process
Data are available atthe Statistical Office of Republic of Slovenia (SORS) as part of register data, "Socio-economic characteristics of population and (international) migrants". Population data are available for 2010-2017, at national, NUTS 3 (Podravska region) and LAU 2 (Maribor) level. Stock data concerning top 5 migrant group residing in Slovenia are available at national, NUTS 3 (Podravska region) and LAU 2 (Maribor) level and can be split into age groups (0-14, 15-24, 25-34, 35-64, 65+) and sex, but is only available for the year 2017. Flow data disaggregation is unavailable.
Development process
Indicator values requested from the National Statistical Office on 14 September 2018. On the same day, it was confirmed that the indicator values would be sent to us by 10 October 2018. Indicator values received from the National Statistical Office on 2 October 2018.
Data use restriction, coverage and frequency of production
Data are public.
Testing
Relevance: Basic demographic data (resident population by age, sex and citizenship) from a time perspective is of crucial importance in countries/municipalities characterised by immigration, emigration or return migration in order to identify trends in population change as much as specific challenges and opportunities emerging in labour markets and social welfare systems at the local and national level. Further, data is relevant from the perspective of education, the sustainability of social security systems or the planning of projects etc. **Accuracy**: The data are considered to be accurate. **Timeliness**: Data is produced on a yearly basis. **Accessibility**: Data accessible upon request **Interpretation**: The *age composition* of the population is necessary to determine the dependency ratio, which provides insights into the number of people of nonworking age (aged 0-14 or 65+) compared to the number of those of working age (aged 15-64). As such, the population indicator is an important tool as in addition to calculating the dependency ratio, it aids discussion concerning the sustainability of the social security system. Aging is one of the most important challenges that most Danube region countries face. Education policies should take into account the share of the young (15-34) and under-age (0-14) population, while acknowledging that information on the active-age population is necessary to formulate labour market policies. Further, age composition also affects natality, mortality and marriage. *Sex composition* is important for planning healthcare and social provisions related to childbearing and for policies targeting gender equality. *Composition by citizenship* reflects the presence of immigration and as such, it could indicate the need for socio-economic and labour market integration policies as well as efforts to strengthen social cohesion. **Coherence**: Data are internally coherent; comparisons with other sources are not applicable. Comparisons across countries/regions/municipalities for analytical purposes are recommended **Further critical comments**: -

SI: Indicator 7: In-migration, internal/international
Data collected/Definitions
International migration: annual migration flows, namely the number of persons establishing their usual residence in the territory of a country for a period that is, or is expected to be, at least 12 months, having previously been usual resident in another country. Internal immigration is the movement of people from one defined area to another within a country**.**
Data availability and Collection process
Data is available at the Statistical Office of Republic of Slovenia (SORS) as part of register data, "Socio-economic characteristics of population and (international) migrants". International migrants are available 2010-2017 for Slovenia, NUTS 3 (Podravska region) and LAU 2 (Maribor). Internal Migration is available 2010-2017 for NUTS 3 (Podravska region) and LAU 2 (Maribor).
Development process
Indicator values requested from the National Statistical Office on 14 September 2018. On the same day, it was confirmed that the indicator values would be sent to us by 10 October 2018. Indicator values received from the National Statistical Office on 2 October 2018.
Data use restriction, coverage and frequency of production
Data are public.
Testing
Relevance: Immigration flow data – both internal and international – are mainly relevant in countries/municipalities characterised predominantly by immigration. Beyond natality and mortality, migration flows determine the size of a population, thus their changes over time constitute a crucial element in planning policies related to the population, including economic and labour market policies, education, healthcare and social provisions. Further, where immigration is present, social cohesion and integration policies might be needed. **Accuracy**: Data is considered to be accurate. **Timeliness**: Data are produced on a yearly basis. **Accessibility**: Data accessible upon request **Interpretation**: Immigration flow data indicate the attractiveness of the municipality/region/country for the inhabitants of the same or other countries. Growing immigration can be a sign that the area is perceived by potential immigrants as a relatively developed and prosperous destination characterised by higher wages and better living conditions. In contrast, the low level or lack of international and/or internal immigration might be related to the relative underdevelopment of the area as perceived by potential immigrants. In economies characterised by an aging population and high levels of labour demand, immigration is usually perceived as an advantageous phenomenon. Immigration of highly educated and/or skilled workers is often interpreted as a "brain gain", and is considered highly beneficial for economies of receiving countries. **Coherence**: Data are internally coherent, comparisons with other sources are not applicable. Comparisons across countries/regions/municipalities for analytical purposes are recommended. **Further critical comments**: -

Sl: Indicator 11: Top-5 sending countries
Data collected/Definitions
TOP- 5 origin countries of international immigrants using flow data (for a definition see indicator 7) and stock (for a definition see indicator 1) and based on the concept of country of birth or country of citizenship.
Data availability and Collection process
Data are available at the Statistical Office of Republic of Slovenia (SORS) as part of register data, "Socio-economic characteristics of population and (international) migrants". Annual flow data are available for Slovenia, NUTS 3 (Podravska region) and LAU 2 (Maribor) for 2010-2017. Numbers are based on the concept of Country of Birth. Stock data (1st of January) are available for Slovenia, NUTS 3 (Podravska region) and LAU 2 (Maribor) for 2011-2017. Numbers are based on the concept of country of birth.
Development process
Indicator values requested from the National Statistical Office on 14 September 2018. On the same day, it was confirmed that the indicator values would be sent to us by 10 October 2018. Indicator values received from the National Statistical Office on 2 October 2018.
Data use restriction, coverage and frequency of production
Data are public. A note regarding missing 2010 data on stock: There was a break in the series in 2011: since then the Statistical Office has defined country of birth as the country in which the mother was usually resident at the time of birth. Previously, country of birth was defined as the country where the physical birth occurred.
Testing
Relevance: Sending countries are mainly relevant in countries/municipalities characterised predominantly by immigration. Knowledge on the origin of migrants is needed to create well-targeted cultural and integration policies. **Accuracy**: Data by SORS are considered to be accurate. **Timeliness**: Data are produced on a yearly basis. **Accessibility**: Data accessible upon request **Interpretation**: Knowledge of the origin and size of the largest immigrant communities and diasporas of foreign citizens in a municipality/region/country - based on the number of arrivals per year or the number of residents from a given sending country - is indispensable for decision makers preparing policy measures aimed at strengthening social cohesion and enhancing the social and labour market integration of immigrants. Changes over time in the most important diasporas -approximated by groups of different migration backgrounds – can signal which immigrant groups require prioritisation in local development strategies, as much as define relationships at policy level with sending countries, thereby enhancing transnational, economic and social ties. **Coherence**: Data are internally coherent, comparisons with other sources are not applicable. Comparisons across countries/regions/municipalities for analytical purposes are recommended. **Further critical comments**: -

SI: Indicator 12: Out-migration, internal/international
Data collected/Definitions
International emigration: annual migration flows, namely the number of persons establishing their usual residence in the territory of a country for a period that is, or is expected to be, at least 12 months, having previously been usual resident in another country. Internal emigration is the movement of people from one defined area to another within a country**.**
Data availability and Collection process
Data are available at the Statistical Office of Republic of Slovenia (SORS) as part of register data, "Socio-economic characteristics of population and (international) migrants". Data on emigrants are available for LAU 2 (Maribor), NUTS 3 (Podravska region) and National for 2010-2017. Internal emigration is available; 2010-2017 for NUTS 3 and LAU 2.
Development process
Data are available online.
Data use restriction, coverage and frequency of production
Data are public.
Testing
Relevance: Emigration flow data – both internal and international – are mainly relevant in countries/municipalities characterised by emigration and return migration. Beyond natality and mortality, migration flows determine the size of a population, thus their changes over time constitute a crucial element in planning policies related to the population, including economic and labour market policies, education, healthcare and social provisions. Where emigration is a common life strategy for the population, and especially for youth, challenges related to an increasingly aging society in the Danube region are set to emerge, such as the deteriorating sustainability of the social welfare system, and growing unmet labour demand. **Accuracy**: Data by SORS are considered to be accurate. **Timeliness**: Data are produced on a yearly basis. **Accessibility**: Data are accessible online. **Interpretation**: Growing emigration can suggest that an area is perceived by potential emigrants as a relatively underdeveloped and less prosperous area characterised by lower wages and worse living conditions. In economies characterised by an aging population and high levels of labour demand, emigration is seen as a serious challenge threatening the sustainability of the whole economy and society. However, beyond population loss and "brain drain", outmigration can also bring benefits to origin countries: emigrants often send considerable amounts in remittances; some make investments back home, while others return bringing new skills and know-how. Relationships with strong diasporas in destinations are potentially beneficial and offer opportunities to enhance transnational businesses, etc. **Coherence**: Data are internally coherent; comparisons with other sources are not applicable. Comparisons across countries/regions/municipalities for analytical purposes are recommended. **Further critical comments**: -

SI: Indicator 14: Number of returnees registered, sex, education level
Data collected/Definitions
Number of residents, born in reporting country, immigrated from abroad (after a short or long term stay in another country), by sex (male/female) and educational attainment
Data availability and Collection process
Variant 1) Data from Socio-economic characteristics of population and (international) migrants - population register is available for the years 2011-2016. Data disaggregated by educational attainment are available for LAU2 (Maribor), NUTS 3 (Podravska region) and Slovenia. **Variant 2)** Data from Eurostat database are available only for the years 2010-2016. Disaggregation is only available by sex at the national level, not available by educational attainment at any levels.
Development process
Variant 1) Indicator values requested from the National Statistical Office on 14 September 2018. On the same day, it was confirmed that the indicator values would be sent to us by 10 October 2018. Indicator values received from the National Statistical Office on 2 October 2018. **Variant 2)** Data available: accessible in Eurostat database (please consult https://ec.europa.eu/eurostat/data/database)
Data use restriction, coverage and frequency of production
Data are public. **Variant 2** contains only total levels without disaggregation and only for national level. On the coverage and the frequency of updating Eurostat data, please consult the Eurostat database.
Testing
Relevance: Data on the flow of return migrants are mainly relevant in countries/municipalities characterised by return migration and emigration. While in several aspects the relevance of return migration flows is similar to that of immigration flows, there are also some striking differences: return migration can also soften the challenges posed by outmigration and reduce population losses due to emigration; however, their integration appears less challenging for local and national governments than that of foreign citizens. **Accuracy**: • **Variant 1)** Data are considered to be accurate. • **Variant 2)** For more details, please consult the Eurostat database. **Timeliness**: • **Variant 1)** Data are produced yearly. • **Variant 2)** On the frequency of updating Eurostat data, please consult the Eurostat database **Accessibility**: • **Variant 1)** Data accessible upon request • **Variant 2)** Data accessible in the Eurostat database https://ec.europa.eu/eurostat/data/database) **Interpretation**: Return migration, especially of the skilled and highly educated, is seen as one of the most beneficial forms of migration. It is usually interpreted as a *triple win solution* in which both sending and destination countries, as well as the migrants themselves profit from the experience: 1) migrants earn higher wages and acquire marketable skills largely unavailable in their origin countries; 2) destination countries in need of migrant labour can benefit from the immigration of foreign workers without the costs of integration policies; 3) origin countries can gain from receiving remittances, while return migration reduces the costs of losing population. Returners might also bring home financial, human and social capital that can be used productively in origin countries. Outmigration and return migration of a person that occurs repeatedly is referred to as re-migration, circular migration, etc; and in the case of skilled workers, "brain circulation" is often mentioned. This circularity of migrants is commonly thought to be the most beneficial and desirable form of migration. **Coherence:** Data are internally coherent; comparisons with other sources are not applicable. Comparisons across countries/regions/municipalities for analytical purposes are recommended. **Further critical comments:**-

SI: Indicator 51: Completed education of persons aged 15-34, by sex, age groups, country of citizenship (native/foreign)
Data collected/Definitions:
Educational attainment of the native and foreign resident population aged 15-34: 1) Low education: Less than primary, primary and lower secondary education (ISCED 2011 levels 0-2); 2) Medium education: Upper secondary and post-secondary non-tertiary education (ISCED 2011 levels 3 and 4); 3) High education: Tertiary education (ISCED 2011 levels 5-8)
Data availability and Collection process
Data are available at the Statistical Office of Republic of Slovenia (SORS) as part of register data, "Socio-economic characteristics of population and (international) migrants". Data for natives are available for Slovenia, NUTS 3 (Podravska region) and LAU 2 (Maribor) for 2011-2017. Numbers are based on the concept of country of birth. Data for foreigners are available for Slovenia, NUTS 3 (Podravska region) and LAU 2 (Maribor) for 2011-2017. Numbers are based on the concept of Country of Birth.
Development process
Indicator values requested from the National Statistical Office on 14 September 2018. On the same day, it was confirmed that the indicator values would be sent to us by 10 October 2018. Indicator values received from the National Statistical Office on 2 October 2018.
Data use restriction, coverage and frequency of production
Data are public.
Testing
Relevance: The educational attainment of the population is relevant in countries characterised by immigration, emigration and return migration. People possessing a higher education are more productive at work, and their earning potential, life expectancy and general health tend to be better. Further, their life satisfaction is higher than those who are less skilled. Thus, while high levels of educational attainment in the population positively affect the wider economy, the health system, as well as individual and psychosocial characteristics beyond economic and labour-related outcomes also benefits. **Accuracy**: Data are considered to be accurate. **Timeliness**: Data production is on a yearly basis. **Accessibility**: Data accessible upon request **Interpretation**: Educational attainment clearly affects economic growth positively. People with higher levels of educational attainment are more productive and more creative, thus contributing to (local) development. Further, they earn and consume more, further enhancing the economy. They even pay more taxes and because it is less likely that they are unemployed, they make less use of the social welfare system. Their health and well-being is also higher, that is, they use the healthcare system less frequently. In general, *improving the educational attainment of the population* – in both natives and foreigners – is desirable. **Coherence:** Data are internally coherent; comparisons with other sources are not applicable. Comparisons across countries/regions/municipalities for analytical purposes are recommended. **Further critical comments**: -

SI: Indicator 53: Student outbound mobility at tertiary level, by sex

Data collected/Definitions

Share of students participating in the international tertiary mobility/exchange study programs as a share of all students enrolled in tertiary education in reporting country by sex (male/female)

Data availability and Collection process

Data are available online from the Ministry of Education, Science and Sport in the Higher Education Students and Graduates Register (eVŠ).
Data are available for the national and LAU 2 level (Maribor) by sex and is available for 2012-2016.

Development process

Variant 1) Indicator values requested from the Ministry of Education, Science and Sport on 12 September 2018 and again on 26 September 2016. We asked for the indicator values to be sent to us by 10 October 2018.
On 26 September 2018, we were informed that the work on the indicator would start after 30 September 2018 (the end of enrolment on educational programmes).
A kind reminder will be sent on 7 November 2018.
Variant 2) Small-scale survey.
We analysed answers to the following question:
Please, mark your main activities abroad during this period and rank them in accordance with their relevance:

- A/6.d. / B/6.d. Work, please indicate what your main job, occupation was: _____
- A/6.e. / B/6.e. Study
- A/6.f. / B/6.f. Family reasons
- A/6.g. / B/6.g. Other (Internship, Voluntary activities etc.): _____

Data use restriction, coverage and frequency of production

Variant 1) Data are public. Data produced yearly since 2012.
Variant 2) Data from small-scale-survey was produced once in autumn 2018 and covers only LAU 2.

Testing

Relevance: Student migration is a common form of moving abroad among young people, thus it is relevant for the whole Danube Region, and in countries characterised by immigration, emigration or return migration. Temporal stays abroad with the aim of studying (e.g. 1-2 semesters, or full educational programmes) are beneficial for sending communities, however, students might decide to remain in destinations and use their newly obtained skills and knowledge there, instead of returning home.
Accuracy:

- **Variant 1)** Data are considered to be accurate.
- **Variant 2)** Due to low sample size, data from small-scale survey has low reliability.

Timeliness:

- **Variant 1)** Data are produced yearly.
- **Variant 2)** Data were produced only in 2018 by small-scale survey.

Accessibility: Data accessible upon request
Interpretation: Students might decide to study abroad with the expectation of learning new languages, profiting from better educational opportunities and job offers, and creating international social networks that might be useful in their professional life. Study abroad is usually highly valued in the home country. However, attracting well-educated young professionals back to their sending communities is often not an easy task, when their newly obtained knowledge can be put to better use in destinations that generally offer higher wages, higher living standards and jobs better suited to the aspirations of young professionals.
Coherence: Data are internally coherent; comparisons with other sources are not applicable. Comparisons across countries/regions/municipalities for analytical purposes are recommended.
Further critical comments:
Unfortunately, in our survey sample, the total number of persons studying abroad for at least a year is eight and thus too small for any analysis. Besides, the indicators would not be directly comparable as: 1) we cannot deliver the survey data by the year of study, and 2) the survey does not cover students who were abroad less than a year (which the official data do).

SI: Indicator 63: Skill-level of return migrants

Data collected/Definitions

Stock of return migrants are the expats returning to the reporting country. Skills are approximated by education level (primary or lower, secondary, tertiary) (see also indicator 14 and 51).

Data availability and Collection process

Variant 1) Data from YOUMIG small-scale survey are available only for 2018. Disaggregation by educational attainment and sex is available only at LAU2 level.
Variant 2) Data are available online from Statistical Office of the Republic of Slovenia, 2011 census. Data on skill level of return migrants are available in 2017 for LAU2/Nuts3 and National level.

Development process

Variant 1) Indicator development: Data query from the YOUMIG survey dataset, using the following variables:

- Have you ever lived outside [country] continuously for at least 1 year?
- What is the highest degree or level of schooling you have completed?
- Sex
- Year of Birth
- Educational attainment

Variant 2) Indicator values requested from the National Statistical Office on 14 September 2018.
On the same day, it was confirmed that the indicator values would be sent to us by 10 October 2018.
Indicator values received from the National Statistical Office on 2 October 2018.

Data use restriction, coverage and frequency of production

Variant 1) Data of SSS are public.
The obtained indicator values are not directly comparable with those based on the register data, obtained from the national Statistical Office. Due to small numbers (five or less) obtained after breaking the data by the year of living abroad or by sex and education level, we cannot provide indicator values for all return migrants either.
Variant 2) Data are public.

Testing

Relevance: Data on the flow of return migrants are mainly relevant in countries/municipalities characterised by return migration and emigration. While in several aspects the relevance of return migration flows is similar to that of immigration flows, there are also some striking differences: return migration can soften the challenges posed by outmigration and reduce population losses due to emigration; however, their integration appears less challenging for local and national governments than that of foreign citizens.
Variant 1) Due to the coverage issues related to quota sampling, valid statements based on the survey can be made only with reference to the respondents. Data should not be generalised. Thus, accuracy is limited.

- **Variant 2)** Data are considered to be accurate.

Timeliness:

- **Variant 1)** Data collection was carried out in autumn 2018. Final dataset is ready to be used.
- **Variant 2)** Data production frequency is very low. Only 2017 is available.

Accessibility:

- **Variant 1)** Data accessible upon request
- **Variant 2)** Data accessible upon request

Interpretation: Return migration, especially of the skilled and highly educated, is seen as one of the most beneficial forms of migration. It is usually interpreted as a *triple win solution* in which both sending and destination countries, as well as the migrants themselves profit from the experience: 1) migrants earn higher wages and acquire marketable skills largely unavailable in their origin countries; 2) destination countries in need of migrant labour can benefit from the immigration of foreign workers without the costs of integration policies; 3) origin countries can gain from receiving remittances, while return migration reduces the costs of population loss. Returners might also bring home financial, human and social capital that can be used productively in origin countries.
Coherence: The two variants should not be contrasted with each other.
Further critical comments:
Variant 2) Total figures exceed the sum of educational levels as the totals also include children under 15 (for whom we do not collect data on educational attainment).

SI: Indicator 71: [SUBJ] [Average] Subjective well-being

Data collected/Definitions

Subjective well-being (SWB) is often measured - though not exclusively - in the form of life satisfaction, namely as an individual answer to a question: "All things considered, how satisfied are you with your life as a whole these days?"

Subjective well-being encompasses three distinct but complementary sub-dimensions: 1) *life satisfaction*, based on an overall cognitive assessment; 2) *affects*, or the presence of positive feelings and absence of negative feelings; and 3) *eudemonics*, the feeling that one's life has a meaning.

Life satisfaction represents how a person evaluates or appraises their life as a whole. It is intended to cover a broad, reflective appraisal of their life. The term "life" as used here, refers to all areas of a person's existence. The variable therefore refers to the respondent's opinions/feelings about the degree of satisfaction in their life. It focuses on how people are feeling "these days" rather than specifying a longer or shorter time period. The intention is not to assess the current emotional state of the respondent but rather to make a reflective judgement on his or her level of satisfaction - in cognitive and affective terms.

Data availability and Collection process

Data are available from two sources:

Variant 1) In a small-scale survey

Variant 2) EU-SILC. Data available for 2012-2017 on LAU2 (Maribor) and national level.

Development process

Variant 1: Small-scale survey. Items in the Questionnaire are based on the questions taken from EU-SILC.

- Overall, how satisfied are you with your life nowadays?
- Overall, how satisfied are you with the financial situation of your household?
- Overall, how satisfied are you with your accommodation?
- Overall, how satisfied are you with your personal relationships?

(10-point scale; 0 = totally unsatisfied, 10 = very satisfied).

Variant 2) Indicator values requested from the National Statistical Office on 12 September 2018.

On 21 September 2018, we were informed that the work on the indicator would start on 1 October 2018. We expect the indicator values to be sent to us by 10 October 2018.

Indicator values received from the National Statistical Office on 4 October 2018.

Data use restriction, coverage and frequency of production

Variant 1) Data of SSS are public.

Variant 2) Data are public.

Testing

Relevance: Subjective well-being indicators are closely related to the topics of social capital (including social norms, trust, and spirit of cooperation) and the quality of life (covering multiple dimensions of life including wealth, employment, physical and mental health, safety, freedom, among others). Even such a general measure as *satisfaction with life as a whole* can predict further migration behaviour since dissatisfied people on average migrate more often. When making a decision to migrate, people are influenced as much by their objective conditions as by their perceptions and opinions with regard to those conditions. Subjective well-being indicators are usually collected at national and regional level, in household surveys and specialised polls.

Accuracy:

- **Variant 1)** Due to coverage issues related to quota sampling, valid statements based on the survey can be made only with reference to the respondents. Data should not be generalised. Thus, accuracy is limited.
- **Variant 2)** Data are considered to be accurate at national level.

Timeliness:

- **Variant 1)** Data collection was carried out in autumn 2018. Final dataset is ready to be used.
- **Variant 2)** Data production is on a yearly basis

Accessibility:

- **Variant 1)** Data accessible upon request
- **Variant 2)** Data accessible upon request

Interpretation: A high SWB indicator level suggests that life and living conditions are perceived favourably by individuals. An increase in the indicator not only signals an improvement in the individual situation, but also in the socio-economic and political environment(e.g., a high level of interpersonal trust in a society, and high living standards, among other factors). Modifications to the survey question allow the assessment of satisfaction levels (and thus, individuals' opinions) on specific life domains and issues, for instance, satisfaction with local services. The SWB indicators at national level, within the EU-27(or 15), can be used as an SWB benchmark in a municipality.
The SWB can be evaluated for different subgroups of a population. Life satisfaction for women is on average lower than that of men; the age-life satisfaction relationship is most often U-shaped; and nationals of post-communist states are on average less satisfied with life than populations of Western European countries. Immigrants are often less satisfied with life than local populations - especially in the first stage after their arrival - due to difficulties with integration, working in occupations that require lower skills than migrants actually possess, loneliness, and so on. Thus, when drawing conclusions on the differences in SWB between locals and immigrants, it is recommended that data be disaggregated for immigrants by length of stay.
Coherence: Possibilities for comparison across data sources are limited. Comparisons across countries/regions/municipalities – especially SILC data – are recommended for analytical purposes.
Further critical comments: -

SI: Indicator 73: [SUBJ] Tolerance towards foreigners (foreign workers)

Data collected/Definitions

Tolerance towards foreigners can be framed as tolerance, or attitudes towards migrants, or more specifically towards migrant workers

Data availability and Collection process

Variant 1) Data from YOUMIG small-scale survey are available only for 2018 and only at LAU2 level.
Variant 2) Data from Eurobarometer are available for the years 2014-2018 only at the national level. For information on data collection, see http://ec.europa.eu/COMMFrontOffice/publicopinion/index.cfm
Variant 3) Data from ESS are available for the years 2010, 2012, 2014, 2016, only at the national level. For information on data collection, see https://www.europeansocialsurvey.org/

Development process

Variant 1) Indicator development: Data query from the YOUMIG survey dataset, using the following variables:

- Immigrants take jobs away from natives in the country
- A country's cultural life is undermined by immigrants
- Immigrants make crime problems worse
- Immigrants are a strain on a country's welfare system
- In the future the proportion of immigrants will become a threat to society
- For the greater good of society it is better for immigrants to maintain their distinct customs and traditions
- Immigrants from Bosnia and Herzegovina take jobs away from natives in the country
- A country's cultural life is undermined by immigrants from Bosnia and Herzegovina
- Immigrants from Bosnia and Herzegovina make crime problems worse
- Immigrants from Bosnia and Herzegovina are a strain on a country's welfare system
- In the future the proportion of immigrants from Bosnia and Herzegovina will become a threat to society
- For the greater good of society it is better for immigrants from Bosnia and Herzegovina to maintain their distinct customs and traditions

Variant 2) Data available: Consulting the following variables of Eurobarometer:
Please tell me whether each of the following statements evokes a positive or negative feeling

- Immigration of people from other EU Member States
- Immigration of people from outside the EU

Variant 3) Data available: Data query from the ESS dataset, using the following variables:

- Would you say it is generally good or bad for [country]'s economy that people come to live here from other countries?
- Would you say that [country]'s cultural life is generally enriched or undermined by people coming to live here from other countries?
- Is [country] made a better or a worse place to live by people coming to live here from other countries?

Data use restriction, coverage and frequency of production

Variant 1) Data are public. Data cover only the respondent in the sample.
Variant 2) Data are public. On data coverage, please consult Eurobarometer at http://ec.europa.eu/COMMFrontOffice/publicopinion/index.cfmdata collection is usually every six months
Variant 3) Data are public. On data coverage, please consult ESS at see https://www.europeansocialsurvey.org/

Testing

Relevance: Public opinion and attitudes towards migrants are high on the political agenda of many European countries. Increasing concerns about the integration of migrants in society might (among other concerns): boost support for parties of the "radical right" and diminish levels of interpersonal trust and collaboration. Further, such concerns might increase levels of hostility, leading to acts of aggression towards migrants being condoned and increasing the chance of discrimination towards migrants in the labour market and everyday situations. This is a sensitive topic, and public opinion can be influenced/distorted by mass media.

Accuracy:

- **Variant 1)** Due to coverage issues related to quota sampling, valid statements based on the survey can

be made only with reference to the respondents. Data should not be generalised. Thus, accuracy is limited.

- **Variant 2)** Eurobarometer data should be considered accurate at the national level. For more details on the methodology and quality of Eurobarometer see http://ec.europa.eu/COMMFrontOffice/publicopinion/index.cfm
- **Variant 3)** European social survey data should be considered accurate at the national level. For more details on the methodology and quality of Eurobarometer see
- https://www.europeansocialsurvey.org/

Timeliness:

- **Variant 1)** Data collection was carried out in autumn 2018.
- **Variant 2)** Data collection is carried out approximately every six months, for more details on updating Eurobarometer data, please consult http://ec.europa.eu/COMMFrontOffice/publicopinion/index.cfm
- **Variant 3)** Data collection is carried every two years, for more details on updating European Social Survey data, please consult https://www.europeansocialsurvey.org/

Accessibility:

- **Variant 1)** Data accessible upon request
- **Variant 2)** Data accessible at http://ec.europa.eu/COMMFrontOffice/publicopinion/index.cfm
- **Variant 3)** Data accessible at https://www.europeansocialsurvey.org/

Interpretation: Low levels of trust towards migrants as a whole, or towards particular ethnic groups, not only negatively impacts the success of integration of the immigrant group, but also limit the opportunities of second-generation migrants (children of immigrants) in spheres such as education and the labour market. Discrimination can be based on visible characteristics such as differences in appearance and/or names. One of the possible consequences of discrimination is an outflow of immigrants from their host country, potentially associated with a loss of human capital, a weakened labour force, a lower income tax collection and similar negative consequences.

Conversely, high levels of trust towards migrants point to the readiness of a society to support the integration of migrants at the local level, the active introduction of migrants to the local community, as well as the wider population's support of national projects and directives promoting integration.

Coherence: Possibilities for comparison across data sources are limited due to different time frames, and questions asked. Comparisons across countries/regions/municipalities for analytical purposes are recommended.

Further critical comments: -

SI: Ind. 75: Intentions to migrate within next five years, [if possible] intended destination, duration of absence
Data collected/Definitions
Intention to migrate can be assessed with help of the following and similar questions: • Do you intend to leave this country to go and live in another country? (Yes, No, Undecided) • Do you have specific plans to leave or do you just have a general feeling that you would like to leave? (Specific plans, General feeling) • Where do you think you will go?
Data availability and Collection process
Data from YOUMIG small-scale survey are available only for 2018 and only at LAU2 level.
Development process
Indicator development: Data query from the YOUMIG survey dataset, using the following variables: • Now you live in Maribor. Ideally, if you had the opportunity, would you like to move to another country, or to another municipality in this country?
Data use restriction, coverage and frequency of production
Data of SSS are public.
Testing
Relevance: The Danube Region is an area with deep historical and economic relations between countries. With the fall of the communist regimes in Eastern Europe and the enlargement of the European Union, migration flows within the region have been intensifying. Up to 40% of all immigrants in each country come from other countries of the region. The migrant pool is becoming younger and more educated; youth in the region are a highly dynamic group accounting for more than half of incoming migrants. A decision to emigrate can impact both sending and receiving countries. **Accuracy**: Due to coverage issues related to quota sampling, valid statements based on the survey can be made only with reference to the respondents. Data should not be generalised. Thus, accuracy is limited. **Timeliness**: Data collection was carried out in autumn 2018. **Accessibility**: Data accessible upon request **Interpretation**: Although intentions to migrate are not always realised, increasing levels of youth migration may indicate that the social, economic and sometimes political conditions in the country of origin do not match the ambitions of young people, for instance, in terms of availability of jobs, low wages, and low satisfaction with local educational programmes. To understand better which population subgroups are more likely to emigrate, additional information is needed. Those who report undertakin g*active measures*, such as looking for a job abroad, and devising a *specific plan* are more likely to emigrate than those who simply consider this option a hypothetical. Intended *temporary migration* raises issues such as the reintegration of returnees, recognition of academic qualifications, the increasing number of transnational families, and (in the case of return in later stages of life) pension system sustainability. Disaggregation by *educational level* helps to assess the risk of "brain drain" and the resultant loss of innovation. Information on work skills demanded by the labour market means that conclusions can be reached concerning: the (un)balancing effect of potential migration on both the skills' mismatch and unemployment in the labour market; the perception of low pay for high-demand professions; the lack of options for youth with specific qualifications, etc. **Coherence**: Possibilities for comparison across data sources are limited due to different time frames, geographical levels and questions asked. Comparisons across countries/regions/municipalities for analytical purposes are recommended. **Further critical comments**: -

SI: Indicator 105: Regional GDP per capita (NUTS3), GDP per capita

Data collected/Definitions:

GDP per capita based on purchasing power parity (PPP). PPP GDP is gross domestic product converted to international dollars using purchasing power parity rates. An international dollar has the same purchasing power in GDP terms as the U.S. dollar has in the United States. GDP at purchaser's prices is the sum of gross value added by all resident producers in the economy plus any product taxes and minus any subsidies not included in the value of the products. It is calculated without making deductions for depreciation on fabricated assets or for the depletion and degradation of natural resources. Data are in current international dollars based on the 2011 ICP round.

Data availability and Collection process

Variant 1) National level: World Bank, International Comparison Program database,https://data.worldbank.org/indicator/NY.GDP.PCAP.PP.CD?end=2017&start=2010&year_high_desc=true

Variant 2) by Statistical Office of the Republic of Slovenia, Si-Stat Data Portal, Nuts3 and National level.

Development process

Variant 1) concerns GDP per capita, PPP (current international $) on national level between 2010-2017 and is available online.

Variant 2) contains the GDP given in Euroand PPP international USD on national level and NUTS 3 (Podravska region) between 2010 and 2017.

Data use restriction, coverage and frequency of production

Variant 1) Data are public. Coverage is not interpretable in this case. On the frequency of updating data, please consult https://data.worldbank.org/indicator/NY.GDP.PCAP.PP.CD?end=2017&start=2010&year_high_desc=true

Variant 2) Data are public. Coverage is not interpretable in this case.

Testing

Relevance: National GDP per capita (or its regional counterpart) reflects the living standards in the respective geographic area. High GDP per capita is usually associated with strong economies, booming production, and developed social services. GDP gives an approximation of economic activity, when perceived as low it may serve as a push factor stimulating out-migration, while serving as a pull factor and stimulating in-migration in the opposite case.

Accuracy:

- **Variant 1)** World Bank data should be considered accurate at the national level. For more details on the methodology and quality of World Bank data see https://data.worldbank.org/indicator/NY.GDP.PCAP.PP.CD?end=2017&start=2010&year_high_desc=true
- **Variant 2)** The dataset is considered to be accurate.

Timeliness:

- **Variant 1)** Data production are based on the data production system of national statistical institutes. For more details on updating World Bank data, please consult https://data.worldbank.org/indicator/NY.GDP.PCAP.PP.CD?end=2017&start=2010&year_high_desc=true
- **Variant 2)** Data are produced on a yearly basis.

Accessibility:

- **Variant 1)** Data accessible at https://data.worldbank.org/indicator/NY.GDP.PCAP.PP.CD?end=2017&start=2010&year_high_desc=true
- **Variant 2)** Data accessible upon request

Interpretation: *On average, countries with higher GDP per capita experience higher rates ofmigration per 1000 population*, namely the difference between incoming and leaving flows of migrants is positive, and the rate of this difference relative to the population number is higher in countries with a higher GDP.

GDP figures, however, need to be interpreted in comparison to those of neighbouring, or other reference

countries. A country with a relatively high GDP per capita and high GDP growth rates, is more likely to be perceived as a country with a strong economy and good economic prospects, and thus act as a magnet for immigrants.
The indicator assumes an equal division of GDP figures in the population - inequality of income and wealth distribution across population groups is not accounted for. High GDP figures do not always coincide with high levels of subjectively perceived living standards, and SWB indicators and trust should supplement the analysis.
Coherence: National level data can be compared across data sources. Unsurprisingly, the World Bank uses data from national statistical office; thus, data are similar.
Further critical comments: -

SI: Indicator 107: Business demography: number of active enterprises; by size, ownership (local/foreign owned)
Data collected/Definitions
Business demography refers to the population of firms, taking into consideration aspects such as the total number of active enterprises in the business economy, their birth and death rates. The number of active enterprises (in the business economy) is an important indicator. An active enterprise is one that had either turnover (totals invoiced by the unit) or employment at any time during the reference period.
Data availability and Collection process
Data available online from Statistical Office of the Republic of Slovenia, Statistical Business Register. Data are available on LAU2, NUTS3, and National level for 2010-2016.
Development process
Missing indicator values requested from the National Statistical Office on 28 September 2018 (with the deadline on 10 October 2018). We are expecting their feedback. Indicator values received from the National Statistical Office on 3 October 2018.
Data use restriction, coverage and frequency of production
Data are public.
Testing
Relevance*:* The indicators of business demography by analogy to human demographic processes reflect the total number of active enterprises in the business economy, their birth and death rates; in other words, they describe the population size of firms, and the share of firms created and closed each year. Information on the number of employees and the types of legal organisation and industry is collected. The figures help in analysing the propensity to start a new business, and the contribution of newly opened firms to job creation. **Accuracy**: Data are considered to be accurate. **Timeliness**: Data are produced yearly. **Accessibility**: Data accessible upon request **Interpretation**: Disaggregation by *industry* helps to assess which sectors of the economy are growing or contracting, and which specific skills in the labour force are in demand or will become redundant. Information on the *size* of the business and the *nationality* of the owner can be used to address the discussion on ethnic entrepreneurship. In some cases, entrepreneurship becomes a major route for labour market integration of migrants; thus, any analysis should be joined by a discussion on immigrant discrimination, recognition of formal qualifications, and measures to promote local language proficiency. **Coherence**: Data are internally coherent; comparisons with other Variants are not applicable. Comparisons across countries/regions/municipalities for analytical purposes are recommended. **Further critical comments:** -

SI: Indicator 123: Disposable household income per capita
Data collected/Definitions
Disposable household income refers to the amount of money that households have available for spending or saving after income distribution measures have taken effect; the latter comprising payment of taxes, social contributions, and social benefits received. Per capita refers to the disposable household income per person/inhabitant of the area.
Data availability and Collection process
Data are available online from the Statistical Office of the Republic of Slovenia, EU-SILC for 2010-2017 for LAU2 (Maribor), NUTS 3 (Podravska region) and Slovenia.
Development process
Indicator values requested from the National Statistical Office on 12 September 2018. On 21 September 2018, we were informed that the work on the indicator would start on 1 October 2018. We expect the indicator values to be sent to us by 10 October 2018. Indicator values received from the National Statistical Office on 4 October 2018.
Data use restriction, coverage and frequency of production
Data are public. Note: The sample at LAU2 (Maribor) level was big enough to estimate the indicator values for the total population.
Testing
Relevance: Disposable household income refers to the amount of money that households have available for spending or saving after income distribution measures have taken effect. Thus, the measure reflects individual/family living standards. In the majority of countries under consideration, wages and salaries are the main component of household incomes. Higher living standards can be a factor that dissuades individuals and families from out-migration and emigration, as well as a pull factor stimulating both the immigration of foreign nationals and the return home of emigrants. **Accuracy**: Data is considered as accurate. **Timeliness**: Data production frequency is yearly. **Accessibility**: Data accessible upon request **Interpretation**: Indicator figures should be considered relative to a measure of the living standards in the society/municipality. Disposable household income can be compared to national/regional poverty thresholds, which can in turn be used to determine whether a household belongs to a poor population stratum. Poverty is one of the conditions that prevent individuals from living healthy and fulfilling life and being socially included within a society. In recession conditions, *women* and *youth (including children),* and *populations with a migratory background*, are likely to be more vulnerable to poverty. Poverty may also stimulate household indebtedness, which despite stimulating household consumption in the short run, leads in the case of long-term debt, to negative consequences for the economy and GDP growth. The lower the disposable household income in the population, relative to that of neighbouring countries, the higher the rate of emigration (or temporary out-migration) as a coping mechanism, often resulting in divided families and children left behind. **Coherence**: Data are internally coherent; comparisons with other variants are not applicable. Comparisons across countries/regions/municipalities for analytical purposes are recommended. **Further critical comments**: -

Sl: Indicator 137: Population, by activity status; by sex, age (5-y. intervals), national-foreign
Data collected/Definitions
In the labour market, the population aged 15 years and above (typically 15-64 y.o.) is divided into the economically active and inactive. The former group includes the employed (civilian employment plus the armed forces) and the latter, the unemployed. The current, economically active population is called the labour force. The indicator is calculated as a percentage of active and inactive people respectively. Therefore, the number of active people is divided by the total population of ages 15-64.
Data availability and Collection process
Data are available at the Statistical Office of the Republic of Slovenia. Data are available for LAU2/NUTS3/National level 2011- national level for foreign/national 2010-2017 by age groups.
Development process
Indicator values requested from the National Statistical Office on 14 September 2018. On the same day, it was confirmed that the indicator values would be sent to us by 10 October 2018. Indicator values received from the National Statistical Office on 2 October 2018.
Data use restriction, coverage and frequency of production
Data are public.
Testing
Relevance: The economically inactive population includes school children, students, pensioners, and housewives or husbands (provided that they are neither working nor available for work); some of these groups may be of working-age. In the case of youth**,** the NEET part of the population (young people in neither employment, nor education nor training) warrant special attention due to the obvious loss of human capital and productivity. The economically active part of the population serves as an approximation of labour supply in a country/region/municipality; the labour force being the part of the population involved in the production and distribution of goods and services, or actively searching for employment. **Accuracy**: Data are considered to be accurate. **Timeliness**: Data are produced yearly. **Accessibility**: Data accessible upon request **Interpretation**: Disaggregation by *country of citizenship*, and in addition by *sex*, allows the behaviour of the native and foreign population to be compared (e.g., by providing data on whether native and foreign women have the same opportunities and motivations to work in the labour market). A growing share of economic activity in the working age population might indicate a shrinking labour force, leading to slower economic development and productivity losses, a higher burden on social services and diminished income tax revenue collection. Separate estimations by *age group* can help identify groups with a low activity share, that is, those disproportionally affected by labour market segmentation. Where the disadvantaged group consists of youth, measures leading to the acquisition of skills demanded by the labour market, and the facilitation of the transition from study to work should be undertaken. **Coherence**: Data are internally coherent; comparisons with other variants are not applicable. Comparisons across countries/regions/municipalities for analytical purposes are recommended. **Further critical comments**: -

SI: Indicator 180: Workforce in healthcare/Shortage of work in healthcare/Healthcare workforce gap

Data collected/Definitions

Health workers are "all people engaged in actions whose primary intent is to enhance health".

Data availability and Collection process

Variant 1: Eurostat, Eurostat database/health. Data are available on National level for 2010-2015 and for NUTS 2 Vzhodna Slovenija 2010-2013 for Medical doctors, nurses and midwives, dentists, pharmacists and physiotherapists per 100,000 inhabitants.

Variant 2) Data are available at the National Institute of Public Health. Data are given in absolute numbers and per 1000 inhabitants for LAU2, NUTS 3 (Podravska region) and National level for 2010-2017. Number of work force in healthcare (Number of medical doctors at primary level (general practitioners and paediatricians).

Variant 3) The Health Insurance Institute of Slovenia; Data on the workload of general practitioners, paediatricians, dentists and gynaecologists for 2017 and 2018 for LAU2, NUTS3 (Podravska region) and Slovenia.

Development process

Variant 1) Indicator values requested from the National Institute of Public Health on 14 September 2018 and again on 26 September 2018. On 28 September 2018, we inquired by phone and found out that our contact person was on leave and taking a new job in the Netherlands on 1 October 2018. Thus, we asked his superior by e-mail to name another contact person who would hopefully send the requested data by the deadline. Besides, we can ourselves collect some data (for the basic indicator and our second indicator) that are available on-line.

Variant 2) The National Institute of Public Health sent us the values of the indicator "Number of work force in healthcare (Number of medical doctors at primary level (general practitioners and paediatricians)" on 4 October 2018.

Variant 3) The values of the indicator "The percentage of workload (according to the average) of individual general practitioners, paediatricians, dentists and gynaecologists" were calculated by IER staff based on data published on the Health Insurance Institute of Slovenia and finalised on 10 October.

Data use restriction, coverage and frequency of production

Data are public.

Testing

Relevance: Indicators of healthcare provision are linked to a region's level of urban development and attractiveness since they directly affect the quality of life at the local level (and serves as a pull factor attracting migrants while providing reasons for the native population to remain). Moreover, gaps in health care provision and accompanying migration schemes stimulate the in-migration of healthcare and medical professionals; this serves as a huge pull factor directing relevant migration flows into more economically stable and wealthier countries of the region. For sending countries, gaps in the relevant segments of the labour market appear, while the attractiveness of the receiving areas is further established.

Accuracy: Data are considered to be accurate.

Timeliness:

- **Variant 1)** On the frequency of updating Eurostat data, please consult the Eurostat database
- **Variant 2)** Data are produced yearly.
- **Variant 3)** Data are produced yearly since 2016.

Accessibility:

- **Variant 1)** Data accessible in the Eurostat database https://ec.europa.eu/eurostat/data/database)
- **Variant 2)** Data accessible upon request
- **Variant 3)** Data accessible upon request

Interpretation: An increasing number of doctors per 100,000 (or per 1,000) inhabitants is associated with an increasing quality of life in a municipality/region, in addition to higher health care coverage for the population.

Coherence: Possibilities for comparison across data sources are limited due to different time frames, geographical levels and questions asked. Comparisons across countries/regions/municipalities for analytical purposes are recommended.

Further critical comments: -

SI: Indicator 89: Segregation index by neighbourhoods
Data collected/Definitions
Segregation, or concentration, in spatial/geographical terms, is frequently defined through the so-called dissimilarity index, which expresses the level of spatial inequality between population categories in an (urban) system (Duncan and Duncan, 1955; Massey and Denton, 1988).
Data availability and Collection process
Data are available at the Statistical Office of Slovenia as part of Statistical survey "Population structure" - register data. Data are available at national, NUTS 3 (Podravska region), and LAU2 (Maribor) level for the years 2010-2017.
Development process
Indicator values requested from the National Statistical Office on 14 September 2018. On the same day, it was confirmed that the indicator values would be sent to us by 10 October 2018. Indicator values received from the National Statistical Office on 2 October 2018.
Data use restriction, coverage and frequency of production
Data are public. Calculations for LAU2 (municipalities) were based on data for city quarters, those for NUTS 3 (regions) on data for municipalities, and those at the national level on data for regions.
Testing
Relevance: The Segregation index can show how well immigrants are integrated in their host society in terms of the heterogeneity of the neighbourhoods by national characteristics. **Accuracy**: Data are considered to be accurate. **Timeliness**: Data are produced yearly. **Accessibility**: Data are accessible upon request. **Interpretation**: The Segregation index demonstrates whether native and foreign populations are uniformly distributed across neighbourhoods, namely whether we can expect to find a similar share of foreign population in each neighbourhood. Unequal distribution of foreign populations across neighbourhoods might signalise the formation of ghettos (predominantly one nationality residing). The latter may be a sign of potential challenges arising from the integration of some of the foreign populations; it might be also connected to an increase in criminality. When each neighbourhood has a similar share of foreign population, the segregation index (Duncan Segregation Index) is equal to zero. The value of 1 indicates a complete segregation of population groups, namely foreign and native groups do not mix and reside in similar neighbourhoods. If we observe a positive value index value, it indicates the share of a population that should be moved between neighbourhoods to achieve a "good mix" of native and foreign populations, thereby ameliorating the impact of ethnic ghettos. **Coherence**: Possibilities for comparison across data sources are limited due to different time frames, geographical levels and questions asked. Comparisons across countries/regions/municipalities for analytical purposes are recommended. **Further critical comments**: -

SI: Indicator 153: Top-5 activities where immigrants are employed
Data collected/Definitions
Occupation refers to groups formed according to the tasks and duties undertaken in the job and the level of qualifications and skills associated with them.
Data availability and Collection process
Data are available at the Statistical Office of Slovenia as part of Statistical survey "Population structure" - register data. Data are available for national, NUTS 3 (Podravska region), and LAU2 (Maribor) level for the years 2011-2017.
Development process
Indicator values requested from the National Statistical Office on 14 September 2018. On the same day, it was confirmed that the indicator values would be sent to us by 10 October 2018. Indicator values received from the National Statistical Office on 2 October 2018.
Data use restriction, coverage and frequency of production
Data are public. Data are produced yearly.
Testing
Relevance: The lack of native specialists with sought-after skills and the low (economic) appeal of certain unskilled occupations might be the cause of economic imbalances in the labour market. In such cases, labour market demand might be met through the immigration of skilled workers. In view of the fact that immigrants are often employed in poorly paid occupations, the choices and economic conditions of second-generation migrants (the children of immigrants) can in turn be heavily determined by their parents' occupations. **Accuracy**: Data are considered to be accurate. **Timeliness**: Data are produced yearly. **Accessibility**: Data are accessible upon request. **Interpretation**: The analysis of occupations with the largest number of immigrants allows an assessment to be made as to whether mismatches in the labour market cannot be rebalanced by the native labour force (owing to the absence of required specialists, and/or the low attractiveness of menial work for native workers). Persistent patterns (occupations filled by foreigners) signalize the problem areas of the labour market where the municipality/country risks becoming dependent on the inflow of foreign labourers to guarantee a stable/growing development of a sector/industry. Such analysis can also suggest which occupations/industries might benefit from a range of policy interventions - from salary rises to image revamps - in order to increase their attractiveness. **Coherence**: Possibilities for comparison across data sources are limited due to different time frames, geographical levels and questions asked. Comparisons across countries/regions/municipalities for analytical purposes are recommended. **Further critical comments**: -

3.6. Slovakia

Elaboration: IOS & LP

Based on documents prepared by the Institute of Informatics and Statistics, Bratislava - Rača

Version: revised version, December 2018

Set of new indicators:

No	Indicator	type
1	Population; by sex, age, country of citizenship (CoC)	core
7	In-migration, internal/international	core
11	Top-5 sending countries	core
12	Out-migration, internal/international	core
14	Number of returnees registered, sex, education level	core
51	Completed education of persons aged 15-34, by sex, age groups, country of citizenship (native/foreign)	core
53	Student outbound mobility ratio at tertiary level; by sex	core
63	Skill-level of return migrants	core
71	Subjective well-being [in the population]	core
73	Tolerance towards foreigners (foreign workers)	core
75	Intentions to migrate within next five years, [if possible] intended destination, duration of absence	core
105	Regional GDP per capita (NUTS3), GDP per capita	core
107	Business demography: number of active enterprises; by size (number of employees), ownership (local/foreign owned)	core
123	Disposable household income per capita	core
137	Population, by activity status; by age (5-y. intervals), national-foreign	core
180	Workforce in healthcare/Shortage of work in healthcare/Healthcare workforce gap	core
181	Workforce in elderly care	extra
New8	Unmet demand by young people (local and immigrants) of social housing	extra

SK: Indicator 1. Population; by sex, age, country of citizenship (CoC)
Data collected/Definitions
Population on 1 January (stock): based on the concept of usual resident population, namely the number of inhabitants of a given area on 1 January of the year in question for selected years.
Data availability and Collection process
From 2011 to the present - data must be requested, online only NUTS1-3, LAU1 by DATACube, http://datacube.statistics.sk/; data for the following year will be available in mid-year; country of citizenship is available from 2004. Disaggregation by age groups, sex, and Top CoC is available. Source: One source - individual database provided by the SOSR / balance data by the demographic balance method
Development process
Data available: Data sorted from the individual database provided by the Statistical Office of the Slovak Republic (SOSR); estimated time for sorting: 1 day
Data use restriction, coverage and frequency of production
The data are public. Data covers the registered resident population. Data produced on a yearly basis.
Testing
Relevance: Basic demographic data (resident population by age, sex and citizenship) from a time perspective is of crucial importance in countries/municipalities characterised by immigration, emigration or return migration in order to identify trends in population change as much as specific challenges and opportunities emerging in labour markets and social welfare systems at the local and national level. Further, data is relevant from the perspective of education, the sustainability of social security systems or the planning of projects etc. **Accuracy**: Individual database provided by the SOSR / balance data by demographic balance method. The dataset is considered to be accurate. **Timeliness**: Data are produced on a yearly basis. **Accessibility**: Data accessible upon request **Interpretation**: The *age composition* of the population is necessary to determine the dependency ratio, which provides insights into the number of people of nonworking age (aged 0-14 or 65+) compared to the number of those of working age (aged 15-64). As such, the population indicator is an important tool as in addition to calculating the dependency ratio, it aids discussion concerning the sustainability of the social security system. Aging is one of the most important challenges that most Danube region countries face. Education policies should take into account the share of the young (15-34) and under-age (0-14) population, while acknowledging that information on the active-age population is necessary to formulate labour market policies. Further, age composition also affects natality, mortality and marriage. *Sex composition* is important for planning healthcare and social provisions related to childbearing and for policies targeting gender equality. *Composition by citizenship* reflects the presence of immigration and as such, it could indicate the need for socio-economic and labour market integration policies as well as efforts to strengthen social cohesion. **Coherence**: Data are internally coherent; comparisons with other sources are not applicable. Comparisons across countries/regions/municipalities for analytical purposes are recommended. **Further critical comments**: -

SK: Indicator 7: In-migration, internal/international
Data collected/Definitions
International immigration: annual migration flows, namely number of persons establishing their usual residence in the territory of a country for a period that is, or is expected to be, at least 12 months, having previously been usual resident in another country. Internal immigration is the movement of people from one defined area to another within a country**.**
Data availability and Collection process
From 1996 to the present - data must be requested, some data online by DATACube, http://datacube.statistics.sk/ Source: One source - individual migration database (OBYV 5-12 Statistical Report on Change of the Address of Permanent Residence/Report on Migration) provided by the SOSR
Development process
Data available: Data sorted from the individual migration database (OBYV 5-12 Statistical Report on Change of the Address of Permanent Residence/Report on Migration) provided by the SOSR; estimated time for sorting 2 days
Data use restriction, coverage and frequency of production
The data are public. Data cover the yearly registered international/internal migration flows Data produced on a yearly basis.
Testing
Relevance: Immigration flow data – both internal and international – are mainly relevant in countries/municipalities characterised predominantly by immigration. Beyond natality and mortality, migration flows determine the size of a population, thus their changes over time constitute a crucial element in planning policies related to the population, including economic and labour market policies, education, healthcare and social provisions. Further, where immigration is present, social cohesion and integration policies might be needed. **Accuracy**: The dataset is considered to be accurate. **Timeliness**: Data are produced on a yearly basis. **Accessibility**: Data accessible and public **Interpretation**: Immigration flow data indicate the attractiveness of the municipality/region/country for the inhabitants of the same or other countries. Growing immigration can be a sign that the area is perceived by potential immigrants as a relatively developed and prosperous destination characterised by higher wages and better living conditions. In contrast, the low level or lack of international and/or internal immigration might be related to the relative underdevelopment of the area as perceived by potential immigrants. In economies characterised by an aging population and high levels of labour demand, immigration is usually perceived as an advantageous phenomenon. Immigration of highly educated and/or skilled workers is often interpreted as a "brain gain", and is considered highly beneficial for economies of receiving countries. **Coherence**: Data are internally coherent; comparisons with other sources are not applicable. Comparisons across countries/regions/municipalities for analytical purposes are recommended. **Further critical comments**: -

SK: Indicator 11: Top-5 sending countries
Data collected/Definitions
TOP- 5 origin countries of international immigrants using flow data (for a definition see indicator 7) and stock (for a definition see indicator 1) and based on the concept of country of birth or country of citizenship.
Data availability and Collection process
Flow data - from 1996 to the present - data must be requested, some data online by DATACube, http://datacube.statistics.sk/ Stock data are balanced only from 2011 (after the Population and Housing Census) Source: Flow data: one source - individual migration database (OBYV 5-12 Statistical Report on Change of the Address of Permanent Residence/Report on Migration) provided by the SOSR; Stock data: one source - the individual balanced population register
Development process
Data available: Flow data sorted from the individual migration database (OBYV 5-12 Statistical Report on Change of the Address of Permanent Residence/Report on Migration) provided by the SOSR; estimated time for sorting 2 days Stock data sorted from the individual balanced population register provided by the SOSR
Data use restriction, coverage and frequency of production
The data are public. Data cover the yearly registered international migration flows on the one hand and registered resident population on the other. Data produced on a yearly basis
Testing
Relevance: Sending countries are mainly relevant in countries/municipalities characterised predominantly by immigration. Knowledge on the origin of migrants is needed to create well-targeted cultural and integration policies. **Accuracy**: The stock and flow datasets are considered to be accurate. **Timeliness**: Both stock and flow data are produced on a yearly basis. **Accessibility**: Data accessible and public **Interpretation**:Knowledge of the origin and size of the largest immigrant communities and diasporas of foreign citizens in a municipality/region/country - based on the number of arrivals per year or number of residents from a given sending country - is indispensable for decision makers preparing policy measures aimed at strengthening social cohesion and enhancing the social and labour market integration of immigrants. Changes over time in the most important diasporas -approximated by groups of different migration backgrounds – can signal which immigrant groups require prioritisation in local development strategies, as much as define relationships at policy level with sending countries, thereby enhancing transnational, economic and social ties. **Coherence**: Data are internally coherent, comparisons with other sources are not applicable. Comparisons across countries/regions/municipalities for analytical purposes is recommended **Further critical comments**: -

SK: Indicator 12: Out-migration, internal/international
Data collected/Definitions
International emigration: annual migration flows, namely number of persons establishing their usual residence in the territory of a country for a period that is, or is expected to be, at least 12 months, having previously been usual resident in another country. Internal emigration is the movement of people from one defined area to another within a country**.**
Data availability and Collection process
From 1996 to the present - data must be requested, some data online by DATACube, http://datacube.statistics.sk/ Source: One source - individual migration database (OBYV 5-12 Statistical Report on Change of the Address of Permanent Residence/Report on Migration) provided by the SOSR
Development process
Data available: Data sorted from the individual migration database (OBYV 5-12 Statistical Report on Change of the Address of Permanent Residence/Report on Migration) provided by the SOSR; estimated time for sorting 2 days
Data use restriction, coverage and frequency of production
The data are public. Data cover the yearly (de-)registered international/internal emigration flows Data produced on a yearly basis.
Testing
Relevance: ***Emigration flow data*** – both internal and international – are mainly relevant in countries/municipalities characterised by emigration and return migration. Beyond natality and mortality, migration flows determine the size of a population, thus their changes over time constitute a crucial element in planning policies related to the population, including economic and labour market policies, education, healthcare and social provisions. Where emigration is a common life strategy for the population, and especially for youth, challenges related to an increasingly aging society in the Danube region are set to emerge, such as the deteriorating sustainability of the social welfare system, and growing unmet labour demand. **Accuracy**: The dataset is considered to be accurate. **Timeliness**: Data are produced on a yearly basis. **Accessibility**: Data accessible online **Interpretation**: Emigration flow data indicate the potential of the municipality/region/country for maintaining its population. Growing emigration can suggest that an area is perceived by potential emigrants as a relatively underdeveloped and less prosperous area characterised by lower wages and worse living conditions. In economies characterised by an aging population and high levels of labour demand, emigration is seen as a serious challenge threatening the sustainability of the whole economy and society. However, beyond population loss and “brain drain”, outmigration can also bring benefits to origin countries: emigrants often send considerable amounts in remittances; some make investments back home, while others return bringing new skills and know-how. Relationships with strong diasporas in destinations are potentially beneficial and offer opportunities to enhance transnational businesses, etc. **Coherence**: Data are internally coherent; comparisons with other sources are not applicable. Comparisons across countries/regions/municipalities for analytical purposes are recommended **Further critical comments**: -

SK: Indicator 14: Number of returnees registered, sex, education level
Data collected/Definitions
Number of residents born in the reporting country, immigrated from abroad per year (flow) after a short or long term stay in another country, by sex and educational attainment
Data availability and Collection process
Variant 1) Data by country of birth available only from 2012 - data must be requested individual migration database (Report on Migration) provided by the SOSR **Variant 2)** Data are public, 2011-2016, only disaggregation by sex at national level
Development process
Variant 1) Data sorted from the individual migration database (OBYV 5-12 Statistical Report on Change of the Address of Permanent Residence/Report on Migration) provided by the SOSR; sorting variables: AJ4668 (the date to a sign up for the permanent residence), AJ4676 (sex), AQ5854 (country of birth), AJ4684 (education), AJ4773 (the municipality of the new permanent residence); estimated time for sorting 2 days **Variant 2)** Data are available at Eurostat
Data use restriction, coverage and frequency of production
The data are partially public. Collected yearly.
Testing
Relevance: Data on the flow of return migrants are mainly relevant in countries/municipalities characterised by return migration and emigration. In several aspects, the relevance of return migration flows is similar to that of immigration flows, but there are also some striking differences: return migration can ease the challenges posed by outmigration and reduce population losses due to emigration, further; the integration of return migrants appears less challenging for local and national governments than that of foreign citizens. **Accuracy**: • **Variant 1)** The "Statistical Report on Change of the Address of Permanent Residence/Report on Migration (OBYV 5-12)" is an exhaustive survey covering the whole population of international and internal migrants that has changed her/his address of permanent residence. • **Variant 2)** Eurostat data are based on data of the Statistical Office of the Slovak Republic and is considered to be accurate. For more details, please consult the Eurostat database. **Timeliness**: • **Variant 1)** Migration events include each Slovak citizen as well as each foreigner granted a permanent residence permit in the Slovak Republic. Data are disseminated yearly (31 December) or, if appropriate, at shorter time periods (i.e. monthly, quarterly data, mid-year). Data cover migration events for the whole year. • **Variant 2)** Yearly 2011-2016 **Accessibility**: Disaggregated data accessible upon request for 2012-2017 **Interpretation**: Return migration, especially of the skilled and highly educated, is seen as one of the most beneficial forms of migration. It is usually interpreted as a *triple win solution* in which both sending and destination countries, as well as the migrants themselves, profit from the experience: 1) migrants earn higher wages and acquire marketable skills largely unavailable in their origin countries; 2) destination countries in need of migrant labour can benefit from the immigration of foreign workers without the costs of integration policies; 3) origin countries can gain from receiving remittances, while return migration reduces the costs of population loss. Returners might also bring home financial, human and social capital that can be used productively in origin countries. Outmigration and return migration of a person that occurs repeatedly is referred to as re-migration, circular migration, etc; and in the case of skilled workers, “brain circulation” is often mentioned. This circularity of migrants is commonly thought to be the most beneficial and desirable form of migration. **Coherence:** The two variants can be contrasted with each other; however, comparisons are limited due to low availability in terms of disaggregation, geographical level or time. The comparison suggests that register data (including Eurostat) underestimate the number of returners, especially in the beginning of the requested period. Comparisons across countries/regions/municipalities for analytical purposes are recommended. **Further critical comments**: The "Statistical Report on Change of the Address of Permanent Residence/Report

on Migration (OBYV 5-12)" is integral to the Programme of National Statistical Surveys which is a legislative document imposing the reporting duty concerning all statistical surveys on reporting units according to § 18, Par. 3 of Act No. 540/2001 Coll. on State Statistics.
Data cover only the person who has changed his/her address of permanent residence in Slovakia.
Access to the Statistical Report on Change of the Address of Permanent Residence/Report on Migration
The institution responsible for the survey: Statistical Office of the Slovak Republic, Department of Demography and Social statistics
Prices:
Data processed by individual requirements of customers (tailored to needs) and retrievals from non-public databases of the Office are available for payment according to the Price list of Information Services of the SO SR(Payment for processing non-standard outputs is **15,30 EURO** per one hour of work by a professional employee.)
More information: www.statistics.sk (section Services)

SK: Indicator 51: Completed education of persons aged 15-34, by sex, age groups, country of citizenship (native/foreign)
Data collected/Definitions
Educational attainment of the native and foreign resident population aged 15-34: 1) Low education: Less than primary, primary and lower secondary education (ISCED 2011 levels 0-2); 2) Medium education: Upper secondary and post-secondary non-tertiary education (ISCED 2011 levels 3 and 4); 3)High education: Tertiary education (ISCED 2011 levels 5-8)
Data availability and Collection process
Variant 1) Data available only for 2011 - data must be requested Source: one source - the Population and Housing Census **Variant 2)** only national level, data available from 2010-
Development process
Variant 1) Data sorted from the individual Population Census database provided by the SOSR; estimated time for sorting 2 days **Variant 2)** weighted estimations from the LFS, EU-SILC; data sorted from the individual database from the LFS and EU-SILC provided by the SOSR; weighted estimations
Data use restriction, coverage and frequency of production
Variant 1) Data are only available for Bratislava-Rača and YOUMIG-partners. **Variant 2)** Data are only available for Bratislava-Rača and YOUMIG-partners.
Testing
Relevance: The educational attainment of the population is relevant in countries characterised by immigration, emigration and return migration. People possessing a higher education are more productive at work, and their earning potential, life expectancy and general health tend to be better. Further, their life satisfaction is higher than those who are less skilled. Thus, while high levels of educational attainment in the population positively affect the wider economy, the health system, as well as individual and psychosocial characteristics beyond economic and labour-related outcomes also benefits. **Accuracy**: • **Variant 1)** The educational attainment data from the Census is considered as the most accurate among all data sources. Even Microcensus data is less accurate, since it is based on weighted estimations. Further, Microcensus data on at the LAU2 level is of limited reliability (due to low sample size) • **Variant 2)** The educational attainment data from LFS is based on weighted estimation, thus, accuracy is lower. Further, LFS data at the NUTS2 level, and also data on foreign citizens at the national level are of limited reliability (due to low sample size)**.** **Timeliness**: • **Variant 1)** Data production frequency is very low. Between Censuses and Microcensuses, it is recommended that other data sources be used. • **Variant 2)** Data production is on a quarterly basis **Accessibility**: • **Variant 1)** Data accessible upon request • **Variant 2)** Data accessible upon request **Interpretation**: The educational attainment of the population is relevant in countries characterised by immigration, emigration and return migration. People possessing a higher education are more productive at work, and their earnings potential, life expectancy and general health tend to be better. Further, their life satisfaction is higher than those who are less skilled. Thus, while high levels of educational attainment in the population positively affect the wider economy, the health system as well as individual and psychosocial characteristics beyond economic and labour-related outcomes, also benefits. **Coherence:** The variants can be contrasted with each other; however, comparisons are limited due to low availability in terms of disaggregation, geographical level or time. The comparison reveals differences between the results obtained from different sources Comparisons across countries/regions/municipalities for analytical purposes are recommended. **Further critical comments**: The fact that significant differences exist across data sources raises doubts about

the reliability and assumed accuracy of sample based weighted estimations, which makes it difficult to decide which data sources should be prioritized.
SK: Indicator 53: Student outbound mobility at tertiary level, by sex
Data collected/Definitions
Share of students participating in the international tertiary mobility/exchange study programmes as a share of all students enrolled in tertiary education in reporting country by sex (male/female)
Data availability and Collection process
Data available only for 2011 - data must be requested Source: one source - the Population and Housing Census
Development process
Data sorted from the individual Population Census database provided by the SOSR; estimated time for sorting 1 day; sorting variables: OBEC_TP (municipality of permanent residence); AQ1349 (sex); AR4314 (citizenship); AR4320 (economic activity); AR4417 (the place / country of university)
Data use restriction, coverage and frequency of production
The data should be requested. Data cover all university students with permanent residence in Bratislava-Rača and at the university at the time of the Census. Census data are produced every ten years. The last one took place in 2011 and the next will follow in 2021.
Testing
Relevance: Student migration is a common form of moving abroad among young people, thus it is relevant for the whole Danube Region, and in countries characterised by immigration, emigration or return migration. Temporal stays abroad with the aim of studying (e.g. 1-2 semesters, or full educational programmes) are beneficial for sending communities, however, students might decide to remain in destinations and use their newly obtained skills and knowledge there, instead of returning home. **Accuracy**: Data on student mobility from the Population and Housing Census. Data cover all university students with the permanent residence in Bratislava-Rača and in the location of the university at the time of the Census. **Timeliness**: Data production frequency is very low. Microcensuses are carried out between two full scope censuses. **Accessibility**: Data accessible upon request **Interpretation**: Students might decide to study abroad with the expectations of learning new languages, profiting from better educational opportunities and better job offers, and creating international social networks that might be useful in professional life or for others. Study abroad is usually highly valued in hometowns. However, attracting well-educated young professionals to return to their sending communities is often not an easy task, when most of their newly obtained knowledge can be better used in destinations that generally offer higher wages, higher living standards and jobs better suited to the aspirations of young professionals. **Coherence**: Data are internally coherent; comparisons with other sources are not applicable. Comparisons across countries/regions/municipalities for analytical purposes are recommended. Further critical comments: Access to the Population and Housing Census with the necessary variables - economic activity and location of the university. The institution responsible for the survey: Statistical Office of the Slovak Republic, Department of Demography and Social statistics Prices: Data processed based on individual requirements of customers (tailored to needs) and retrievals from non-public databases of the Office are available for payment according to the Price list of Information Services of the SO SR (Payment for processing non-standard outputs is**15,30 EURO** per one hour of work by a professional employee.) More information: www.statistics.sk (section Services)

SK: Indicator 63: Skill-level of return migrants

Data collected/Definitions

Stock of return migrants are the expats returning to the reporting country. The skills are approximated by education level (primary or lower, secondary, tertiary) (see also indicator 14 and 51).

Data availability and Collection process

Variant 1) data for the municipality are available only for the year of survey (year 2018)
Variant 2) data by country of birth available only from 2012 - data must be requested
Source: One source - individual migration database (OBYV 5-12 Statistical Report on Change of the Address of Permanent Residence/Report on Migration) provided by the SOSR

Development process

Variant 1) (only local/municipality level)
Data sorted from the SSS provided by YOUMIG project; estimated time for sorting (1/2 hour); sorting variables - questions: sex, age, country of birth, Have you ever lived outside Slovakia continuously for at least 1 year?,What is the highest degree or level of schooling you have completed?
Variant 2) Data sorted from the individual migration database (OBYV 5-12 Statistical Report on Change of the Address of Permanent Residence/Report on Migration) provided by the SOSR; estimated time for sorting 2 days

Data use restriction, coverage and frequency of production

Variant 1) Data are available only for Bratislava-Rača,
Variant 2) Data are available only for Bratislava-Rača and YOUMIG-partners.
Data cover the members of surveyed households in the municipality/region/country. A number of migrants, who did not report a change of permanent residence, are not included persons.

Testing

Relevance: Data on the stock of return migrants are mainly relevant in countries/municipalities characterised by return migration and emigration. While in several aspects the relevance of the numbers of returners is similar to that of immigrants, there are also some striking differences: return migration can also soften the challenges posed by outmigration and reduce population losses due to emigration; however, their integration appears less challenging for local and national governments than that of foreign citizens.

Accuracy:

- **Variant 1)** Due to coverage issues related to quota sampling, valid statements based on the survey can only be made with reference to the respondents. Data should not be generalised. Thus, accuracy is limited.
- **Variant 2)** A number of migrants, who did not report a change of permanent residence, are not included persons. The data are considered to be of relatively good quality.

Timeliness:

- **Variant 1)** Data collection was carried out in autumn 2018. Final dataset is ready to be used. YOUMIG survey can be repeated when municipalities need it.
- **Variant 2)** Yearly data production**.**

Accessibility:

- **Variant 1)** Data accessible upon request
- **Variant 2)** Data accessible upon request

Interpretation: Return migration, especially of the skilled and highly educated, is seen as one of the most beneficial forms of migration. It is usually interpreted as a *triple win solution* in which both sending and destination countries, as well as the migrants themselves, profit from the experience: 1) migrants earn higher wages and acquire marketable skills largely unavailable in their origin countries; 2) destination countries in need of migrant labour can benefit from the immigration of foreign workers without the costs of integration policies; 3) origin countries can gain from receiving remittances, while return migration reduces the costs of population loss. Returners might also bring home financial, human and social capital that can be used productively in origin countries. Outmigration and return migration of a person that occurs repeatedly is referred to as re-migration, circular migration, etc; and in the case of skilled workers, “brain circulation” is often mentioned. This circularity of migrants is commonly thought to be the most beneficial and desirable form of migration.

Coherence: The two variants should not be contrasted with each other. Comparisons across

countries/regions/municipalities for analytical purposes are recommended.
Further critical comments: The fact that significant differences exist across data sources, raises doubts about the reliability and assumed accuracy of registers despite quality assurance systems.

SK: Indicator 71: [SUBJ] [Average] Subjective well-being in the population

Data collected/Definitions

Subjective well-being (SWB) is often measured – though not exclusively - in the form oflifesatisfaction, namely as an individual answer to a question: "All things considered, how satisfied are you with your life as a whole these days?"
Subjective well-being encompasses three distinct but complementary sub-dimensions: 1) *life satisfaction,* based on an overall cognitive assessment; 2) *affects*, or the presence of positive feelings and absence of negative feelings; and 3) *eudemonics*, the feeling that one's life has a meaning.
Life satisfaction represents how a person evaluates or appraises their life as a whole. It is intended to cover a broad, reflective appraisal of their life. The term "life" as used here, refers to all areas of a person's existence. The variable therefore refers to the respondent's opinions/feelings about the degree of satisfaction in their life. It focuses on how people are feeling "these days" rather than specifying a longer or shorter time period. The intention is not to assess the current emotional state of the respondent but rather to make a reflective judgement on his or her level of satisfaction - in cognitive and affective terms.

Data availability and Collection process

Variant 1) Data from YOUMIG small-scale survey are available only for 2018. Data disaggregated by country of birth are available only at LAU2 level.
Data from the YOUMIG Survey was collected from among approx. 800 respondents, aged 15-34, using quota sampling.
Variant 2)available only for the Slovak Republic - data must be requested
Source: One source - EU SILC 2013 (next Ad-hoc module on material deprivation, well-being and housing difficulties, EU-SILC 2018)

Development process

Variant 1) (only municipality level)
Development process:
Data sorted from the SSS provided by YOUMIG project; estimated time for sorting (1/2 hour); sorting variables - questions:

- Overall, how satisfied are you with your life nowadays?
- Overall, how satisfied are you with the financial situation of your household?
- Overall, how satisfied are you with your accommodation?
- Overall, how satisfied are you with your personal relationships?

Variant 2) Data obtained from the Ad-hoc module on subjective well-being, EU-SILC 2013, SOSR

Data use restriction, coverage and frequency of production

Variant 1) Data are only for Bratislava-Rača.
Data cover only the respondent in the sample.
YOUMIG survey can be repeated when municipalities need it.
Variant 2) Data are public. Only data for 2013 at the national level are available

Testing

Relevance: Subjective well-being indicators are closely related to the topics of social capital (including social norms, trust, and spirit of cooperation) and the quality of life (covering multiple dimensions of life including wealth, employment, physical and mental health, safety, freedom, among others). Even such a general measure as *satisfaction with life as a whole* can predict further migration behaviour since dissatisfied people on average migrate more often. When making a decision to migrate, people are influenced as much by their objective conditions as by their perceptions and opinions with regard to those conditions. Subjective well-being indicators are usually collected at national and regional level, in household surveys and specialised polls.
Accuracy:

- **Variant 1)** Due to coverage issues related to quota sampling, valid statements based on the survey can

only be made in reference to the respondents. Data should not be generalised. Thus, accuracy is limited.

- **Variant 2)** The subjective well-being data from SILC are based on weighted estimation, thus, accuracy is limited.

Timeliness:

- **Variant 1)** Data collection was carried out in autumn 2018. Final dataset is ready to be used. YOUMIG survey can be repeated when municipalities need it.
- **Variant 2)** Data production is on a yearly basis

Accessibility:

- **Variant 1)** Data accessible upon request
- **Variant 2)** Only data on the total population is accessible upon request. For more information, contact Eurostat. .

Interpretation: A high SWB indicator level suggests that life and living conditions are perceived favourably by individuals. An increase in the indicator not only signals an improvement in the individual situation, but in the socio-economic and political environment (e.g., a high level of interpersonal trust in a society, and high living standards, among other factors). Modifications to the survey question allow the assessment of satisfaction levels (and thus, individuals' opinions) on specific life domains and issues, for instance, satisfaction with local services. The SWB indicators at national level, within the EU-27(or 15), can be used as an SWB benchmark in a municipality.

The SWB can be evaluated for different subgroups of a population. Life satisfaction for women is on average lower than that of men; the age-life satisfaction relationship is most often U-shaped; and nationals of post-communist states are on average less satisfied with life than populations of Western European countries. Immigrants are often less satisfied with life than local populations - especially in the first stage after their arrival - due to difficulties with integration, working in occupations that require lower skills than migrants actually possess, loneliness, and so on. Thus, when drawing conclusions on the differences in SWB between locals and immigrants, it is recommended that data be disaggregated for immigrants by length of stay.

Coherence: Possibilities for comparison across data sources are limited. Comparisons across countries/regions/municipalities – especially SILCdata – are recommended for analytical purposes.

Further critical comments: -

SK: Indicator 73: [SUBJ] Tolerance towards foreigners (foreign workers)

Data collected/Definitions

Tolerance towards foreigners can be framed as tolerance, or attitudes towards migrants, or more specifically towards migrant workers**.**

Data availability and Collection process

Variant 1) Data from YOUMIG small-scale survey are available only for 2018 and only at LAU2 level.
Data from the YOUMIG Survey were carried out among approx. 800 respondents, aged 15-34, using quota sampling.
Variant 2) Data from Eurobarometer are available online on the Eurostat website
Variant 3) Data from ESS are available for the years 2010, 2012, only at the national level. For information on data collection, see https://www.europeansocialsurvey.org/
Variant 4) available only for the Slovak Republic, Source: One source ISSP Slovakia 2014

Development process

Variant 1) Indicator development: Data query from the YOUMIG survey dataset, using the following variables:

- Immigrants take jobs away from natives in the country
- A country's cultural life is undermined by immigrants
- Immigrants make crime problems worse
- Immigrants are a strain on a country's welfare system
- In the future the proportion of immigrants will become a threat to society
- For the greater good of society it is better for immigrants to maintain their distinct customs and traditions

Variant 2) Data available online
Variant 3) Data available: Data query from the ESS dataset, using the following variables:

- Would you say it is generally good or bad for [country]'s economy that people come to live here from other countries?
- Would you say that [country]'s cultural life is generally enriched or undermined by people coming to live here from other countries?
- Is [country] a better or worse place to live as a result of people coming to live here from other countries?

Variant 4) Data obtained from the ISSP Slovakia 2014;

Data use restriction, coverage and frequency of production

Variant 1) Data available on request.
Data covers only the respondent in the sample.
YOUMIG survey can be repeated when municipalities need it.
Variant 2) Data are available online
Variant 3) Data are public.
On data coverage, please consult ESS at see https://www.europeansocialsurvey.org/
Variant 4) Data are public.

Testing

Relevance: Public opinion and attitudes towards migrants are high on the political agenda of many European countries. Increasing concerns about the integration of migrants in society might (among other concerns): boost support for parties of the "radical right" and diminish levels of interpersonal trust and collaboration. Further, such concerns might increase levels of hostility and potentially lead to acts of aggression towards migrants being condoned, increasing the chance of discrimination towards migrants in the labour market and everyday situations. This is a sensitive topic, and public opinion can be influenced/distorted by mass media.
Accuracy:

- **Variant 1)** Due to coverage issues related to quota sampling, valid statements based on the survey can be made only with reference to the respondents. Data should not be generalised. Thus, accuracy is limited.
- **Variant 2)** Data should be considered accurate at the national level.
- **Variant 3)** European Social Survey data should be considered accurate at the national level. For more details on the methodology and quality of ESS see

- https://www.europeansocialsurvey.org/
- **Variant 4)** ISSP should be considered accurate at the national level. For more details on the methodology see http://w.issp.org/menu-top/home/

Timeliness:

- **Variant 1)** Data collection was carried out in autumn 2018. Final dataset is ready to be used. YOUMIG survey can be repeated when municipalities need it.
- **Variant 3)** Data collection is carried every two years, for more details on updating European Social Survey data, please consult
- https://www.europeansocialsurvey.org/
- **Variant 4)** Available for Slovakia for 2014 only

Accessibility:

- **Variant 1)** Data accessible upon request
- **Variant 2)** Data acccessible online
- **Variant 3)** Data accessible at https://www.europeansocialsurvey.org/
- **Variant 4)** Data accessible at http://sasd.sav.sk/sk/data_katalog_det.php?id=sasd_2014001#group0

Interpretation: Low levels of trust towards migrants as a whole, or towards particular ethnic groups, not only negatively impacts the success of integration of the immigrant group, but also limit the opportunities of second-generation migrants (children of immigrants) in spheres such as education and the labour market. Discrimination can be based on visible characteristics such as differences in appearance and/or names. One of the possible consequences of discrimination is an outflow of immigrants from their host country, potentially associated with a loss of human capital, a weakened labour force, a lower income tax collection and similar negative consequences.

Conversely, high levels of trust towards migrants point to the readiness of a society to support the integration of migrants at the local level, the active introduction of migrants to the local community, as well as the wider population's support of national projects and directives promoting integration.

Coherence: Possibilities for comparison across data sources are limited due to different time frames, and questions asked. Comparisons across countries/regions/municipalities for analytical purposes are recommended.

Further critical comments: -

SK: Indicator 75: Intentions to migrate within next five years, [if possible] intended destination, duration of absence

Data collected/Definitions

Intentions to migrate can be assessed with the help of the following and similar questions:

- Do you intend to leave this country to go and live in another country? (Yes, No, Undecided)
- Do you have specific plans to leave or do you just have a general feeling that you would like to leave? (Specific plans, General feeling)

Where do you think you will go?

Data availability and Collection process

Variant 1) Data from YOUMIG small-scale survey are available only for 2018 and only at LAU2 level.
Data from the YOUMIG Survey were collected from among approx. 800 respondents, aged 15-34, using quota sampling.
Variant 2) available only for the Slovak Republic and NUTS3 (2009). https://data.europa.eu/euodp/data/dataset/S803_72_5_EBS337

Development process

Variant 1) Indicator development: Data query from the YOUMIG survey dataset, using the following variables:

- Ideally, if you had the opportunity, would you like to move to another country, or to another municipality in this country?

Variant 2) Data obtained from the EUROSTAT Special Euro-barometer 337: Geographical and labour market mobility

Data use restriction, coverage and frequency of production

Variant 1) Data are available on request.
Data cover only the respondent in the sample.
YOUMIG survey can be repeated when municipalities need it.
Variant 2) The data are public. Data are collected in the framework of a special module (rotating)

Testing

Relevance: The Danube Region is an area with deep historical and economic relations between countries. With the fall of the communist regimes in Eastern Europe and the enlargement of the European Union, migration flows within the region have been intensifying. Up to 40% of all immigrants in each country come from other countries of the region. The migrant pool is becoming younger and more educated; youth in the region are a highly dynamic group accounting for more than half of incoming migrants. A decision to emigrate can impact both sending and receiving countries.

Accuracy:

- **Variant 1)** Due to coverage issues related to quota sampling, valid statements based on the survey can be made only with reference to the respondents. Data should not be generalised. Thus, accuracy is limited.
- **Variant 2)** Data should be considered accurate at national level. For mode details see https://data.europa.eu/euodp/data/dataset/S803_72_5_EBS337

Timeliness:

- **Variant 1)** Data collection was carried out in autumn 2018. Final dataset is ready to be used. YOUMIG survey can be repeated when municipalities need it.
- **Variant 2)** Data production frequency is low. Data are collected in the framework of a special module (rotating).

Accessibility:

- **Variant 1)** Data accessible upon request
- **Variant 2)** Public

Interpretation: Although intentions to migrate are not always realised, increasing levels of youth migration may indicate that the social, economic and sometimes political conditions in the country of origin do not match the ambitions of young people, for instance, in terms of availability of jobs, low wages, and low satisfaction with local educational programmes.
To understand better which population subgroups are more likely to emigrate, additional information is needed. Those who report undertaking *active measures*, such as looking for a job abroad, and devising a

specific plan are more likely to emigrate than those who simply consider this option a hypothetical. Intended *temporary migration* raises issues such as the reintegration of returnees, recognition of academic qualifications, the increasing number of transnational families, and (in the case of return in later stages of life) pension system sustainability.
Disaggregation by *educational level* helps to assess the risk of "brain drain" and the resultant loss of innovation. Information on work skills demanded by the labour market means that conclusions can be reached concerning: the (un)balancing effect of potential migration on both the skills' mismatch and unemployment in the labour market; the perception of low pay for high-demand professions; the lack of options for youth with specific qualifications, etc.
Coherence: Possibilities for comparison across data sources are limited due to different time frames, geographical levels and questions asked. Comparisons across countries/regions/municipalities for analytical purposes are recommended.
Further critical comments: -

SK: Indicator 105: Regional product (Regional GDP) per capita

Data collected/Definitions

GDP per capita based on purchasing power parity (PPP). PPP GDP is gross domestic product converted to international dollars using purchasing power parity rates. An international dollar has the same purchasing power in terms of GDP as the U.S. dollar has in the United States. GDP at purchaser's prices is the sum of gross value added by all resident producers in the economy plus any product taxes and minus any subsidies not included in the value of the products. It is calculated without making deductions for depreciation on fabricated assets or for the depletion and degradation of natural resources. Data are in current international dollars based on the 2011 ICP round.

Data availability and Collection process

Variant 1) World Bank Data are available for requested years at the national level.
For information on data collection, see https://data.worldbank.org/indicator/NY.GDP.PCAP.PP.CD?end=2017&start=2010&year_high_desc=true
Variant 2) Data obtained from the DATAcube - online database of the SOSR;
available for the Slovak Republic and NUTS3 (2010-2016)
free Access - Regional gross domestic product per capita (at current prices); using the yearly PPP exchange rates at https://data.oecd.org/conversion/purchasing-power-parities-ppp.htm#indicator-chartconversion into the Regional gross domestic product per capita, PPP)

Development process

Variant 1) Data available.Consulting data at https://data.worldbank.org/indicator/NY.GDP.PCAP.PP.CD?end=2017&start=2010&year_high_desc=true
Variant 2) Data available upon request.

Data use restriction, coverage and frequency of production

Variant 1) Data are public.
Coverage is not interpretable in this case.
On the frequency of updating data, please consult
https://data.worldbank.org/indicator/NY.GDP.PCAP.PP.CD?end=2017&start=2010&year_high_desc=true
Variant 2) Data are public
Coverage is not interpretable in this case.
Data for a given year are finalized in December of the following year.

Testing

Relevance: National GDP per capita (or its regional counterpart) reflects the living standards in the respective geographic area. High GDP per capita is usually associated with strong economies, booming production, and developed social services. GDP gives an approximation of economic activity, when perceived as low it may serve as a push factor stimulating out-migration, while serving as a pull factor and stimulating in-migration in the opposite case.

Accuracy:

- **Variant 1)** World Bank data should be considered accurate at the national level. For more details on the methodology and quality of World Bank data see https://data.worldbank.org/indicator/NY.GDP.PCAP.PP.CD?end=2017&start=2010&year_high_desc=true
- **Variant 2)** The dataset is considered to be accurate.

Timeliness:

- **Variant 1)** Data production is based on the data production system of national statistical institutes. For more details on updating World Bank data, please consult https://data.worldbank.org/indicator/NY.GDP.PCAP.PP.CD?end=2017&start=2010&year_high_desc=true
- **Variant 2)** Data for each year are updated in December of the following year. After that, data can be accessed and used by decision-makers.

Accessibility: *Countries with higher GDP per capita on average experience higher rates of net migration per 1000 population*, namely the difference between the incoming and leaving flows of migrants is positive, and the rate of this difference relative to population numbers is higher in countries with a higher GDP. GDP figures,

however, should be interpreted in comparison to those of neighbouring, or other reference countries. A country with a relatively higher GDP per capita, and a high GDP growth rate, is likely to be perceived as a country with a strong economy and good economic prospects, and thus a magnet for immigrants. However, the indicator assumes "an equal division" of GDP figures in the population, in other words, inequality of income and wealth distribution across population groups is not accounted for. High GDP figures do not always coincide with high levels of subjectively perceived living standards; SWB indicators and trust should supplement the analysis.

Variant 1) Data accessible at https://data.worldbank.org/indicator/NY.GDP.PCAP.PP.CD?end=2017&start=2010&year_high_desc=true

- **Variant 2)** Data accessible online at DATAcube - online database of the SOSR

Interpretation: *Countries with higher GDP per capita on average experience higher rates of net migration per 1000 population*, namely the difference between the incoming and leaving flows of migrants is positive, and the rate of this difference relative to population numbers is higher in countries with a higher GDP. GDP figures, however, should be interpreted in comparison to those of neighbouring, or other reference countries. A country with a relatively higher GDP per capita, and a high GDP growth rate, is likely to be perceived as a country with a strong economy and good economic prospects, and thus a magnet for immigrants. However, the indicator assumes "an equal division" of GDP figures in the population, in other words, inequality of income and wealth distribution across population groups is not accounted for. High GDP figures do not always coincide with high levels of subjectively perceived living standards; SWB indicators and trust should supplement the analysis.

Coherence: National level data can be compared across data sources. Unsurprisingly, the World Bank uses data from national statistical offices; thus, data are similar.

Further critical comments: -

SK: Indicator 107: Business demography: number of active enterprises; by size, ownership (local/foreign owned)
Data collected/Definitions
Business demography refers to the population of firms, taking into consideration aspects such as the total number of active enterprises in the business economy, their birth and death rates. The number of active enterprises (in the business economy) is an important indicator. An active enterprise is one that had either turnover (totals invoiced by the unit) or employment at any time during the reference period.
Data availability and Collection process
Available only for the Slovak Republic, NUTS3 and LAU1 (2015-2017)
Development process
Data available: Data obtained from the DATAcube - online database of the SOSR; free access
Data use restriction, coverage and frequency of production
Data are public. Data cover the enterprises active in the national territory of Slovakia. Data updating is continuous.
Testing
Relevance: The indicators of business demography by analogy to human demographic processes reflect the total number of active enterprises in the business economy, their birth and death rates; in other words, they describe the population size of firms, and the share of firms created and closed each year. Information on the number of employees and the types of legal organisation and industry is collected. The figures help in analysing the propensity to start a new business, and the contribution of newly opened firms to job creation. **Accuracy**: The dataset is considered to be accurate. **Timeliness**: Data updating is continuous **Accessibility**: Data accessible online **Interpretation**: Disaggregation by *industry* helps to assess which sectors of the economy are growing or contracting, and which specific skills in the labour force are in demand or will become redundant. Information on the *size* of the business and the *nationality* of the owner can be used to address the discussion on ethnic entrepreneurship. In some cases, entrepreneurship becomes a major route for labour market integration of migrants; thus, any analysis should be joined by a discussion on immigrant discrimination, recognition of formal qualifications, and measures to promote local language proficiency. **Coherence**: Data are internally coherent; comparisons with other sources are not applicable. Comparisons across countries/regions/municipalities for analytic purposes are recommended **Further critical comments**: -

SK: Indicator 123: Disposable household income per capita

Data collected/Definitions

Disposable household income refers to the amount of money that households have available for spending or saving after income distribution measures have taken effect; the latter comprising payment of taxes, social contributions, and social benefits received.
Per capita refers to disposable household income per person/inhabitant of the area.

Data availability and Collection process

Variant 1) Data from YOUMIG small-scale survey are available only for 2018 and only at LAU2 level.
Data from the YOUMIG Survey were collected from among approx. 800 respondents, aged 15-34, using quota sampling.
Variant 2) Data from the Slovak Statistical Office, available only for the Slovak Republic, NUTS3; (2010-2016). DATAcube (http://datacube.statistics.sk/#!/view/en/VBD_SK_WIN/ps3003rr/Income%20and%20living%20conditions%20of%20households%20(EU%20SILC)%20%5Bps3003rr%5D)

Development process

Variant 1) Indicator development: Data query from the YOUMIG survey dataset, using the following variables:

- Thinking of all possible sources of income, what is your household income after deductions for income tax, National Insurance etc. that you received in the month prior to the interview?
- number of household members

Variant 2) Data obtained from the DATAcube - online database of the SOSR, Average disposable equivalised household income (EUR per month)

Data use restriction, coverage and frequency of production

Variant 1) Data is accessible by request.
Data covers only the respondent in the sample.
The YOUMIG survey can be repeated when municipalities need it.
Variant 2) Data is public

Testing

Relevance: Disposable household income refers to the amount of money that households have available for spending or saving after income distribution measures have taken effect. Thus, the measure reflects individual/family living standards. In the majority of countries under consideration, wages and salaries are the main component of household incomes. Higher living standards can be a factor that dissuades individuals and families from out-migration and emigration, as well as a pull factor stimulating both the in-migration of foreign nationals and the return home of emigrants.

Accuracy:

- **Variant 1)** Due to coverage issues related to quota sampling, valid statements based on the survey can only be made with reference to the respondents. Data should not be generalised. Thus, accuracy is limited.
- **Variant 2)** Data are considered to be accurate.

Timeliness:

- **Variant 1)** Data collection was carried out in autumn 2018. Final dataset is ready to be used. The YOUMIG survey can be repeated when municipalities need it.
- **Variant 2)** Data production is on a yearly basis.

Accessibility:

- **Variant 1)** Data accessible by request
- **Variant 2)** Secondary data is available. EU-Statistics on Income and Living Conditions (EU-SILC) are harmonized, based on the survey on the sample of households selected on geographical as well as urbanisation level stratification.
- Selected indicator is provided on an annual base. Data are not accessible at the level of Bratislava-Rača; microdata are confidential.

Interpretation: Indicator figures should be considered relative to a measure of the living standards in the society/municipality. Disposable household income can be compared to national/regional poverty thresholds, which can in turn be used to determine whether a household belongs to a poor population stratum. Poverty is

one of the conditions that prevent individuals from living healthy and fulfilling life and being socially included within a society. In recession conditions, *women* and *youth (including children),* and *populations with a migratory background*, are likely to be more vulnerable to poverty. Poverty may also stimulate household indebtedness, which despite stimulating household consumption in the short run, leads in the case of long-term debt, to negative consequences for the economy and GDP growth.
Coherence: Possibilities for comparison across data sources are limited due to different time frames, geographical levels and questions asked. Comparisons across countries/regions/municipalities for analytical purposes are recommended.
Further critical comments: -

SK: Indicator 137: Population, by activity status, by sex, 5 year intervals, national/foreign
Data collected/Definitions
In the labour market, the population aged 15 years and above (typically 15-64 y.o.) is divided into the economically active and inactive. The former group includes the employed (civilian employment plus the armed forces) and the latter, the unemployed. The current, economically active population is called the labour force. The indicator is calculated as the percentage of people in activity and inactivity. Hence, the number of active people should be divided by the total population above 15 y.o. (15-64 y.o.).
Data availability and Collection process
Data from LFS are available for the requested years from SOSR, NUTS3 (2010-2017); free access
Development process
Indicator development: Data query from the LFS database. Using the following variables: • Household address; • Citizenship; • Activity status; • Date of birth
Data use restriction, coverage and frequency of production
Data are only partly public (at the national and NUTS3 level). Data cover the members of surveyed households in the municipality/region/country. LFS data are produced on a quarterly basis.
Testing
Relevance: The economically inactive population includes schoolchildren, students, pensioners, and housewives or husbands (provided that they are neither working nor available for work); some of these may be of working-age. In the case of youth, the NEET part of the population (young people in neither employment, nor educationnor training) warrant special attention due to the obvious loss of human capital and productivity. The economically active part of the population serves as an approximation of the labour supply in a country/region/municipality; the labour force being that part of the population involved in the production and distribution of goods and services, or actively searching for employment. **Accuracy**: Data from LFS are based on a weighted estimation, thus, accuracy is lower**.** **Timeliness**: Data production is on a quarterly basis **Accessibility**: Free access. **Interpretation**: Disaggregation by the *country of citizenship*, and in addition by *sex*, allows the behaviour of the native and foreign population to be compared (e.g., providing data on whether native and foreign women have the same opportunities and motivations to work in the labour market). A growing share of economic activity in the working age population may indicate a shrinking labour force, leading to slower economic development and productivity losses, a higher burden on social services and diminished income tax revenue collection. Separate estimations by*age group* can help identify age groups with a low activity share, that is, those disproportionally affected by labour market segmentation. Where the disadvantaged group consists of youth, measures leading to the acquisition of skills demanded by the labour market, and the facilitation of the transition from study to work should be undertaken. **Coherence:** The two variants can be contrasted with each other; however, comparisons are limited due to low availability in terms of geographical level or time. The comparison reveals differences across sources. Comparisons across countries/regions/municipalities for analytical purposes are recommended. **Further critical comments**: The fact that significant differences exist across data sources raises doubts about the reliability and assumed accuracy of sample based weighted estimations, which makes it difficult to decide which data sources should be prioritized.

SK: Indicator 180: Workforce in healthcare/Shortage of work in healthcare/Healthcare workforce gap
Data collected/Definitions
Health workers are "all people engaged in actions whose primary intent is to enhance health".
Data availability and Collection process
Variant 1) Eurostat database/health **Variant 2)** Data sorted from the individual Population Census database provided by the SOSR; estimated time for sorting 1 day. **Variant 3)** Data from SORS available online: number of outpatient facilities: (2010-2016) Eurostat prepares estimations based on input data provided by national statistical institutes.
Development process
Variant 1) Data available **Variant 2)** Data available: Indicator values requested directly from SORS, available only for 2011 **Variant 3)** Data obtained from the SOSR DATAcube, http://datacube.statistics.sk/#!/view/sk/VBD_SK_WIN/zd5001rr/Zdravotn%C3%ADctvo%20%5Bzd5001rr%5D
Data use restriction, coverage and frequency of production
Variant 1) Data are public **Variant 2)** Data available on request from the SORS **Variant 3)** Data available online
Testing
Relevance: Indicators of healthcare provision are linked to a region's level of urban development and attractiveness since they directly affect the quality of life at the local level (and serve as a pull attracting migrants while providing reasons for the native population to remain). Moreover, gaps in health care provision and accompanying migration schemes stimulate the in-migration of healthcare and medical professionals; this serves as a huge pull factor directing relevant migration flows into more economically stable and wealthier countries of the region. For sending countries, gaps in the relevant segments of the labour market appear, while the attractiveness of the receiving areas is further established. **Accuracy**: • **Variant 1)** The dataset is considered to be accurate. • **Variant 2)** The dataset is considered to be accurate. • **Variant 3**) The dataset is considered to be accurate. **Timeliness**: • **Variant 1)** Yearly, 2010 – 2014. • **Variant 2)** Data production is low. Last available dataset is from 2011. • **Variant 3)** Yearly, 2010-2016. **Accessibility**: An increasing number of doctors per 100,000 (or per 1,000) inhabitants is associated with an increasing quality of life in a municipality/region. • **Variant 1)** Data available online https://ec.europa.eu/eurostat/web/health/health-safety-work/data/database • **Variant 2)** Data accessible upon request • **Variant 3)** Data accessible in the SORS database http://datacube.statistics.sk/#!/view/sk/VBD_SK_WIN/zd5001rr/Zdravotn%C3%ADctvo%20%5Bzd5001rr%5D) **Interpretation**: An increasing number of doctors per 100,000(or per 1,000) inhabitants is associated with an increasing quality of life in a municipality/region and a higher health-care coverage for the population. **Coherence**: Possibilities for comparison across data sources are limited due to different time frames, geographical levels and questions asked. Comparisons across countries/regions/municipalities for analytical purposes are recommended. **Further critical comments**: -

SK: Indicator 181: Workforce in elderly care
Data collected/Definitions
Employed persons (professionals and working pensioners) in occupations with an emphasis on work related to care of the elderly according to the International Standard Classification of Occupations (1343 Care Home Services Managers; 3412 Social Work Associate Professionals for elderly people; 5321 Health Care Assistants; 5322 Home-based Personal Care Workers).
Data availability and Collection process
Data available at the Statistical Office of Slovakia, as part of the housing and population 2011 Census. Data are available at national, NUTS 2 (bratislavský kraj) and LAU 2 (Bratislava-Raca)
Development process
Data sorted from the individual Population Census database provided by the SOSR within 2 days. Included variables: • OBEC_TP (permanent residence - municipality) • AR4320 (economic activity) • AR4321 (occupation)
Data use restriction, coverage and frequency of production
Data are only available for Raca and YOUMIG-partners. Data produced for the purposes of the 2011 census.
Testing
Relevance: The gap between supply and demand in the elderly care workforce can influence both sending and receiving countries. With the mean age of populations rising in developed countries, the need for elderly care is likely to increase further in the Danube Region. For sending countries, such demand can be a significant obstacle to development since it serves as huge pull factor directing the relevant migration flows into richer and more economically stable countries of the region. The effect of this is the appearance of gaps in the relevant segments of the labour market. Further, since emigrants working in elderly care are predominantly female, the consequences for children and elderly family members left behind in sending countries can be serious. **Accuracy**: Census data are considered to have low accuracy. **Timeliness**: Census data were lastly produced 2011. **Accessibility**: Data accessible upon request **Interpretation**: Indicators of elderly care provision serve to characterise the urban development and attractiveness of an area, affecting the quality of life at the local level and acting as a pull factor for migrants. However, gaps in elderly care provision and accompanying migration schemes may also stimulate the immigration of professionals to more economically stable and rich countries/municipalities of the region. For sending countries, gaps in the relevant segments of the labour market may appear, while the attractiveness of receiving areas is further confirmed. An increasing number of doctors per 100,000 (or per 1,000) inhabitants is associated with an increasing quality of life in a municipality/region, in addition to higher health care coverage for the population. **Coherence**: Possibilities for comparison across data sources are limited due to different time frames, geographical levels and questions asked. Comparisons across countries/regions/municipalities for analytical purposes are recommended. **Further critical comments**: -

SK: Indicator New8: Unmet demand by young people (local and immigrants) of social housing
Data collected/Definitions
The difference between the number of applications for social housing and the number of allocations The definition of social housing may differ across countries. For example, in the Slovak Republic, it is "Housing acquired with the use of public funds for the adequate and humanly decent housing of individuals who are not able to secure housing for themselves, and who meet the conditions under this Act. Social housing is also permanent housing in residential buildings or accommodation financed from public funds and provided under specific regulations." (Housing Europe Observatory)
Data availability and Collection process
Data available at the Department of Social Affairs, municipality Bratislava-Rača; Availability: 2010-2017 for NUTS3 and LAU2. Source: Internal Database of the Department of Social Affairs, municipality Bratislava-Rača.
Development process
No free access, since, data must be requested from the Department of Social Affairs, municipality Bratislava-Rača; Estimated time until arrival: two weeks.
Data use restriction, coverage and frequency of production
Data are only available for the municipality of Bratislava-Rača and YOUMIG-partners. Census data are produced every ten years.
Testing
Relevance: Demand for social housing is often the result of relatively high housing prices (purchase and rent) relative to incomes. Both unaffordable housing and low living standards serve as potential push factors for youth out/emigration. **Accuracy**: Census data are considered to be accurate. **Timeliness**: Census data were last produced in 2011. **Accessibility**: Data accessible upon request **Interpretation**: A growing unmet demand for social housing points to one or a combination of the following phenomena: (a) low incomes for youth, (b) high housing prices (purchase and renting), (c) lack of housing in a municipality. The higher the unmet demand, the higher the expected outflow of youth from the municipality **Coherence**: Possibilities for comparison across data sources are limited due to different time frames, geographical levels and questions asked. Comparisons across countries/regions/municipalities for analytical purposes are recommended. **Further critical comments**: -

3.7. Serbia

Elaboration: IOS & LP

Based on texts prepared by:

The Statistical Office of the Republic of Serbia

The Institute of Social Sciences

The Municipality of Kanjiža

Serbia: Set of new indicators

No	Indicator	type
1	Population; by sex, age, country of citizenship (CoC)	core
7	In-migration, internal/international	core
11	Top-5 sending countries	core
12	Out-migration, internal/international	core
14	Number of returnees registered, sex, education level	core
51	Completed education of persons aged 15-34, by sex, age groups, country of citizenship (native/foreign)	core
53	Student outbound mobility ratio at tertiary level; by sex	core
63	Skill-level of return migrants	core
71	Subjective well-being [in the population]	core
73	Tolerance towards foreigners (foreign workers)	core
75	Intentions to migrate within next five years, [if possible] intended destination, duration of absence	core
105	Regional GDP per capita (NUTS3), GDP per capita	core
107	Business demography: number of active enterprises; by size (number of employees), ownership (local/foreign owned)	core
123	Disposable household income per capita	core
137	Population, by activity status; by age (5-y. intervals), national-foreign	core
180	Workforce in healthcare/Shortage of work in healthcare/Healthcare workforce gap	core
6	Second-generation migrants	extra
28	Number of transnational families	extra
152	Employment rate by education levels	extra
156	Job vacancy rate by occupations/sectors	extra
166	Temporary/permanent contracts among employed youth	extra

SR: Indicator 1: Population; by sex, age, urban/rural, country of citizenship (CoC)
Data collected/Definitions
Population on 1 January (stock): based on the concept of usual resident population, namely the number of inhabitants of a given area on 1 January of the year in question for selected years.
Data availability and Collection process
Population data are only available for 2010-2017, for national, (Severnobanatska oblast) and LAU 2 (Kanjiža) level. Stock data concerning top 5 migrant group residing in Serbia are available for national, NUTS 3 (Severnobanatska oblast) and LAU 2 (Kanjiža) level and can be split into age groups (0-14, 15-24, 25-34, 35-64, 65+) and sex, but are only available for the year 2011. Flow data are unavailable.
Development process
Data received fromthe Statistical Office of Serbia (SORS).
Data use restriction, coverage and frequency of production
Data are public. Data are produced yearly.
Testing
Relevance: Basic demographic data (resident population by age, sex and citizenship) from a time perspective is of crucial importance in countries/municipalities characterised by immigration, emigration or return migration in order to identify trends in population change as much as specific challenges and opportunities emerging in labour markets and social welfare systems at the local and national level. Further, data is relevant from the perspective of education, the sustainability of social security systems or the planning of projects etc. **Accuracy**: The data are considered to be accurate. **Timeliness**: Data are produced on a yearly basis. **Accessibility**: Data accessible upon request **Interpretation**: The *age composition* of the population is necessary to determine the dependency ratio, which provides insights into the number of people of nonworking age (aged 0-14 or 65+) compared to the number of those of working age (aged 15-64). As such, the population indicator is an important tool as in addition to calculating the dependency ratio, it aids discussion concerning the sustainability of the social security system. Aging is one of the most important challenges that most Danube region countries face. Education policies should take into account the share of the young (15-34) and under-age (0-14) population, while acknowledging that information on the active-age population is necessary to formulate labour market policies. Further, age composition also affects natality, mortality and marriage. *Sex composition* is important for planning healthcare and social provisions related to childbearing and for policies targeting gender equality. *Composition by citizenship* reflects the presence of immigration and as such, it could indicate the need for socio-economic and labour market integration policies as well as efforts to strengthen social cohesion. **Coherence**: Data are internally coherent; comparisons with other sources are not applicable. Comparisons across countries/regions/municipalities for analytical purposes are recommended. **Further critical comments**: -

SR: Indicator 7: In-migration, internal/international
Data collected/Definitions
International migration: annual migration flows, namely the number of persons establishing their usual residence in the territory of a country for a period that is, or is expected to be, at least 12 months, having previously been usual resident in another country. Internal immigration is the movement of people from one defined area to another within a country**.**
Data availability and Collection process
Data are available online from the Statistical Office of the Republic of Serbia. Data are included in the migration statistics in the Republic of Serbia and 2011 census/additional data processing. International migrants are contained in the 2011 census data for Serbia, NUTS 3 (Severnobanatska oblast) and LAU 2 (Kanjiža) for 2011. Internal Migration is available 2010-2017 for NUTS 3 (Severnobanatska oblast) and LAU 2 (Kanjiža).
Development process
Data received in accordance with request.
Data use restriction, coverage and frequency of production
Data are public. Data are produced in a ten year interval.Data contain 2011 only.
Testing
Relevance: Immigration flow data – both internal and international – are mainly relevant in countries/municipalities characterised predominantly by immigration. Beyond natality and mortality, migration flows determine the size of a population, thus their changes over time constitute a crucial element in planning policies related to the population, including economic and labour market policies, education, healthcare and social provisions. Further, where immigration is present, social cohesion and integration policies might be needed. **Accuracy**: Data are considered to be accurate. **Timeliness**: Data was produced only for the 2011 census; yearly since 2010 for internal migration. **Accessibility**: Data accessible upon request **Interpretation**: Immigration flow data indicate the attractiveness of the municipality/region/country for the inhabitants of the same or other countries. Growing immigration can be a sign that the area is perceived by potential immigrants as a relatively developed and prosperous destination characterised by higher wages and better living conditions. In contrast, the low level or lack of international and/or internal immigration might be related to the relative underdevelopment of the area as perceived by potential immigrants. In economies characterised by an aging population and high levels of labour demand, immigration is usually perceived as an advantageous phenomenon. Immigration of highly educated and/or skilled workers is often interpreted as a "brain gain", and is considered highly beneficial for economies of receiving countries. **Coherence**: Data are internally coherent; comparisons with other sources are not applicable. Comparisons across countries/regions/municipalities for analytical purposes are recommended **Further critical comments**: -

SR: Indicator 11: Top-5 sending countries
Data collected/Definitions
TOP- 5 origin countries of international immigrants using flow data (for a definition see indicator 7) and stock (for a definition see indicator 1) and based on the concept of country of birth or country of citizenship.
Data availability and Collection process
Data are available online by Statistical Office of the Republic of Serbia (SORS). Data are included in the 2011 census data. Stock data are available for Serbia, NUTS 3 (Severnobanatska oblast) and LAU 2 (Kanjiža) for 2011. Instead of CoB or CoC , concept of country of previous usual residence was used. Flow data are unavailable.
Development process
Data received in accordance with request.
Data use restriction, coverage and frequency of production
Data are public. Data are produced in a ten year interval. Data contains 2011 only.
Testing
Relevance: Sending countries are mainly relevant in countries/municipalities characterised predominantly by immigration. Knowledge of the origin of migrants is needed to create well-targeted cultural and integration policies. **Accuracy**: Data by SORS are considered to be accurate. **Timeliness**: Data only produced for 2011 census. **Accessibility**: Data accessible upon request **Interpretation**: Knowledge of the origin and size of the largest immigrant communities and diasporas of foreign citizens in a municipality/region/country - based on the number of arrivals per year or number of residents from a given sending country - is indispensable for decision makers preparing policy measures aimed at strengthening social cohesion and enhancing the social and labour market integration of immigrants. Changes over time in the most important diasporas -approximated by groups of different migration backgrounds – can signal which immigrant groups require prioritisation in local development strategies, as much as define relationships at policy level with sending countries, thereby enhancing transnational, economic and social ties. **Coherence**: Data are internally coherent; comparisons with other sources are not applicable. Comparisons across countries/regions/municipalities for analytical purposes are recommended. **Further critical comments**: -

SR: Indicator 12: Out-migration, internal/international
Data collected/Definitions
International emigration: annual migration flows, namely the number of persons establishing their usual residence in the territory of a country for a period that is, or is expected to be, at least 12 months, having previously been usual resident in another country. Internal emigration is the movement of people from one defined area to another within a country**.**
Data availability and Collection process
Data available online from the Statistical Office of the Republic of Serbia. Data included in the Migration statistics in the Republic of Serbia and 2011 census/additional data processing. Emigrants are contained in the 2011 census data for Serbia, NUTS 3 (Severnobanatska oblast) and LAU 2 (Kanjiža) for 2011. Internal emigration is available 2010-2017 for NUTS 3 and LAU 2.
Development process
Data received in accordance with request.
Data use restriction, coverage and frequency of production
Data are public. Data produced with ten-year interval. Data contains 2011 only.
Testing
Relevance: Emigration flow data – both internal and international – are mainly relevant in countries/municipalities characterised by emigration and return migration. Beyond natality and mortality, migration flows determine the size of a population, thus their changes over time constitute a crucial element in planning policies related to the population, including economic and labour market policies, education, healthcare and social provisions. Where emigration is a common life strategy for the population, and especially for youth, challenges related to an increasingly aging society in the Danube Region are set to emerge, such as the deteriorating sustainability of the social welfare system, and growing unmet labour demand. **Accuracy**: Data by SORS are considered to be accurate. **Timeliness**: Data produced for 2011 census only. **Accessibility**: Data are accessible online. **Interpretation**: Emigration flow data indicate the potential of a municipality/region/country maintaining its population. Growing emigration can suggest that an area is perceived by (potential) emigrants as a relatively underdeveloped and less prosperous area characterised by lower wages and worse living conditions. In economies characterised by an aging population and high levels of labour demand, emigration is seen as a serious challenge threatening the sustainability of the whole economy and society. However, beyond population loss and “brain drain”, outmigration can also bring benefits to origin countries: emigrants often send considerable amounts in remittances; some make investments back home, while others return bringing new skills and know-how. Relationships with strong diasporas in destinations are potentially beneficial and offer opportunities to enhance transnational businesses, etc. **Coherence**: Data are internally coherent; comparisons with other sources are not applicable. Comparisons across countries/regions/municipalities for analytical purposes are recommended. **Further critical comments**: -

SR: Indicator 14: Number of returnees registered, sex, education level
Data collected/Definitions
Number of residents, born in the reporting country, immigrated from abroad (after a short or long term stay in another country), by sex (male/female) and educational attainment
Data availability and Collection process
Data available online from the Statistical Office of the Republic of Serbia. Data on educational level by sex are contained in the 2011 census data for Serbia, NUTS 3 (Severnobanatska oblast) and LAU 2 (Kanjiža).
Development process
Data received in accordance with request.
Data use restriction, coverage and frequency of production
Data are public. Data produced with a ten-year interval. Data contains 2011 only.
Testing
Relevance: Data on the stock of return migrants are mainly relevant in countries/municipalities characterised by return migration and emigration. While in several aspects the relevance of the numbers of returners is similar to that of immigrants, there are also some striking differences: return migration can also soften the challenges posed by outmigration and reduce population losses due to emigration; however, their integration appears less challenging for local and national governments than that of foreign citizens. **Accuracy**: Data are considered to be accurate. **Timeliness**: Data was only produced for 2011 census. **Accessibility**: • Data accessible upon request • **Variant 2)** Data accessible in the Eurostat database https://ec.europa.eu/eurostat/data/database) **Interpretation**: Return migration, especially of the skilled and highly educated, is seen as one of the most beneficial forms of migration. It is usually interpreted as a *triple win solution* in which both sending and destination countries, as well as the migrants themselves, profit from the experience: 1) migrants earn higher wages and acquire marketable skills largely unavailable in their origin countries; 2) destination countries in need of migrant labour can benefit from the immigration of foreign workers without the costs of integration policies; 3) origin countries can gain from receiving remittances, while return migration reduces the costs of population loss. Returners might also bring home financial, human and social capital that can be used productively in origin countries. Outmigration and return migration of a person that occurs repeatedly is referred to as re-migration, circular migration, etc; and in the case of skilled workers, “brain circulation” is often mentioned. This circularity of migrants is commonly thought to be the most beneficial and desirable form of migration. **Coherence:** Data are internally coherent; comparisons with other sources are not applicable. Comparisons across countries/regions/municipalities for analytical purposes are recommended. **Further critical comments:**-

SR: Indicator 51: Completed education of persons aged 15-34, by sex, age groups, country of citizenship (native/foreign)
Data collected/Definitions:
Educational attainment of the native and foreign resident population aged 15-34: 1) Low education: Less than primary, primary and lower secondary education (ISCED 2011 levels 0-2); 2) Medium education: Upper secondary and post-secondary non-tertiary education (ISCED 2011 levels 3 and 4); 3) High education: Tertiary education (ISCED 2011 levels 5-8)
Data availability and Collection process
Data are available online from the Statistical Office of the Republic of Serbia. Data on educational level by sex are contained in the 2011 census data for Serbia, NUTS 3 (Severnobanatska oblast) and LAU 2 (Kanjiža) for 2011. Disaggregation by native/foreign is available.
Development process
Data received in accordance with request.
Data use restriction, coverage and frequency of production
Data are public, contains 2011 only.
Testing
Relevance: The educational attainment of the population is relevant in countries characterised by immigration, emigration and return migration. People possessing a higher education are more productive at work, and their earning potential, life expectancy and general health tend to be better. Further, their life satisfaction is higher than those who are less skilled. Thus, while high levels of educational attainment in the population positively affect the wider economy, the health system, as well as individual and psychosocial characteristics beyond economic and labour-related outcomes also benefits. **Accuracy**: Data are considered to be accurate. **Timeliness**: Data production was only for 2011 census. **Accessibility**: Data accessible upon request **Interpretation**: It is clear that educational attainment affects economic growth positively. People with higher levels of education are more productive and more creative, thereby contributing to (local) development. Further, they earn and consume more, enhancing the economy; they pay higher taxes and experience lower levels of unemployment, and as a result make less use of the social welfare system. Since they enjoy better health and well-being, they tend to use the healthcare system less frequently. Overall, raising levels of education in the population – in natives and foreigners alike – is desirable. **Coherence:** Data are internally coherent; comparisons with other sources are not applicable. Comparisons across countries/regions/municipalities for analytical purposes are recommended. **Further critical comments**: -

SR: Indicator 53: Student outbound mobility at tertiary level, by sex
Data collected/Definitions
Share of students participating in the international tertiary mobility/exchange study programmes as a share of all students enrolled in tertiary education in reporting country by sex (male/female)
Data availability and Collection process
Data are available online from the Statistical Office of the Republic of Serbia. Data is included in Regular statistical survey: Students graduated in HEI (ISCED 6-8). Data are available at the national level by sex and are available for 2015-2017. Only absolute numbers are given, therefore, share must be calculated.
Development process
Data received in accordance with request.
Data use restriction, coverage and frequency of production
Data are public.
Testing
Relevance: Student migration is a common form of moving abroad among young people, thus it is relevant for the whole Danube Region, and in countries characterised by immigration, emigration or return migration. Temporal stays abroad with the aim of studying (e.g. 1-2 semesters, or full educational programmes) are beneficial for sending communities, however, students might decide to remain in destinations and use their newly obtained skills and knowledge there, instead of returning home. **Accuracy**: Data are considered to be accurate. **Timeliness**: Data are produced yearly, since 2015. **Accessibility**: Data accessible upon request **Interpretation**: Students might decide to study abroad with the expectation of learning new languages, profiting from better educational opportunities and job offers, and creating international social networks that might be useful in their professional life. Study abroad is usually highly valued in the home country. However, attracting well-educated young professionals back to their sending communities is often not an easy task, when their newly obtained knowledge can be put to better use in destinations that generally offer higher wages, higher living standards and jobs better suited to the aspirations of young professionals. **Coherence**: Data are internally coherent; comparisons with other sources are not applicable. Comparisons across countries/regions/municipalities for analytical purposes are recommended. **Further critical comments**: -

SR: Indicator63: Skill-level of return migrants

Data collected/Definitions

Stock of return migrants are the expats returning to the reporting country. Skills are approximated by education level (primary or lower, secondary, tertiary) (see also indicator 14 and 51).

Data availability and Collection process

Variant 1) Data from YOUMIG small-scale survey are available only for 2018. Disaggregation by educational attainment and sex is available only at LAU2 level.

Variant 2) Data are available online from the Statistical Office of the Republic of Serbia, 2011 census. Additionally, a small-scale survey was implemented for Kanjiža. Data on the skill level of return migrants are included in the 2011 census data for Serbia, NUTS 3 (Severnobanatska oblast) and LAU 2 (Kanjiža) for 2011.

Development process

Variant 1) Indicator development: Data query from the YOUMIG survey dataset, using the following variables:

- Have you ever lived outside [country] continuously for at least 1 year?
- What is the highest degree or level of schooling you have completed?
- Sex
- Year of Birth
- Educational attainment

Variant 2) Data received in accordance with request.

Data use restriction, coverage and frequency of production

Variant 1) Data of SSS are for YOUMIG-partners only. Low reliability due to small sample size.

Variant 2) Data are public.

Testing

Relevance: Data on the stock of return migrants are mainly relevant in countries/municipalities characterised by return migration and emigration. While in several aspects the relevance of the numbers of returners is similar to that of immigrants, there are also some striking differences: return migration can also soften the challenges posed by outmigration and reduce population losses due to emigration; however, their integration appears less challenging for local and national governments than that of foreign citizens.

Accuracy:

- **Variant 1)** Due to coverage issues related to quota sampling, valid statements based on the survey can be made only with reference to the respondents. Data should not be generalised. Thus, accuracy is limited.
- **Variant 2)** Data are considered to be accurate.

Timeliness:

- **Variant 1)** Data collection was carried out in autumn 2018. Final dataset is ready to be used.
- **Variant 2)** Data production frequency is very low. Only 2011 census data are available.

Accessibility:

- **Variant 1)** Data accessible upon request
- **Variant 2)** Data accessible upon request

Interpretation: Return migration, and especially return migration of the skilled and highly educated is seen as one of the most beneficial forms of migration. It is usually interpreted as a *triple win solution* in which both sending and destination countries, as well as the migrants themselves profit from the experience: 1) the migrants have an opportunity to earn higher wages than would be possible in their origin countries; 2) destination countries in need of migrant labour can benefit from the immigration of foreign workers without the costs of integration policies; 3) origin countries might benefit from receiving remittances, while return migration reduces the costs of population loss. Returners might also bring home financial, human and social capital that can be used in a productive way in origin countries.

Coherence: The two variants should not be contrasted with each other.

Further critical comments: -

SR: Indicator 71: [SUBJ] [Average] Subjective well-being

Data collected/Definitions

Subjective well-being (SWB) is often - though not exclusively - measured in terms of life satisfaction; namely it seeks an individual answer to the question: "All things considered, how satisfied are you with your life as a whole these days?"

Subjective well-being encompasses three distinct but complementary sub-dimensions: 1) *life satisfaction*, based on an overall cognitive assessment; 2) *affects*, or the presence of positive or negative feelings; and 3) *eudemonics* - the feeling that one's life has a purpose.

Life satisfaction considers how a person evaluates his or her life, where the term "life" reflects the person's existence as a whole. Therefore, the variable reflects the respondent's opinions and feelings with regard to his or her level of life satisfaction. In particular, it focuses on how a person is feeling "these days" rather than specifying a longer or shorter period. Thus, the intention is not to uncover the current emotional state of the respondent but rather to make a cognitive and affective evaluation of his or her life.

Data availability and Collection process

Data are available from two sources:

Variant 1) In a small-scale survey

Variant 2) Eurofund In ad hoc-survey:

https://www.eurofound.europa.eu/sites/default/files/ef_publication/field_ef_document/ef1350en6_0.pdf.

Development process

Variant 1: Small scale survey. Items in the Questionnaire are based on the questions taken from EU-SILC.

- Overall, how satisfied are you with your life nowadays?
- Overall, how satisfied are you with the financial situation of your household?
- Overall, how satisfied are you with your accommodation?
- Overall, how satisfied are you with your personal relationships?

(10-point scale; 0 = totally unsatisfied, 10 = very satisfied).

Variant 2) Data about subjective well-being can be found in the ad-hoc survey containing data on "happiness", "life-satisfaction" and "optimism about the future". The survey contains data only from 2012 for the total Serbian population. Indicator received in accordance with request.

Data use restriction, coverage and frequency of production

Variant 1) Data of SSS are only for YOUMIG-partners.

Variant 2) Data are public.

Testing

Relevance: Subjective well-being indicators are closely related to the topics of social capital (including social norms, trust, and spirit of cooperation) and the quality of life (covering multiple dimensions of life including wealth, employment, physical and mental health, safety, freedom, among others). Even such a general measure as *satisfaction with life as a whole* can predict further migration behaviour since dissatisfied people on average migrate more often. When making a decision to migrate, people are influenced as much by their objective conditions as by their perceptions and opinions with regard to those conditions. Subjective well-being indicators are usually collected at national and regional level, in household surveys and specialised polls.

Accuracy:

- **Variant 1)** Due to coverage issues related to quota sampling, valid statements based on the survey can be made only with reference to the respondents. Data should not be generalised. Thus, accuracy is limited.
- **Variant 2)** Data accuracy is limited.

Timeliness:

- **Variant 1)** Data collection was carried out in autumn 2018. Final dataset is ready to be used.
- **Variant 2)** Data produced only once in 2012.

Accessibility:

- **Variant 1)** Data accessible upon request

- **Variant 2)** Data accessible upon request

Interpretation: A high SWB indicator level suggests that life and living conditions are perceived favourably by individuals. An increase in the indicator not only signals an improvement in the individual situation, but also in the socio-economic and political environment (e.g., a high level of interpersonal trust in a society, and high living standards, among other factors). Modifications to the survey question allow the assessment of satisfaction levels (and thus, individuals' opinions) on specific life domains and issues, for instance, satisfaction with local services. The SWB indicators at national level, within the EU-27(or 15), can be used as an SWB benchmark in a municipality.

The SWB can be evaluated for different subgroups of a population. Life satisfaction for women is on average lower than that of men; the age-life satisfaction relationship is most often U-shaped; and nationals of post-communist states are on average less satisfied with life than populations of Western European countries. Immigrants are often less satisfied with life than local populations - especially in the first stage after their arrival - due to difficulties with integration, working in occupations that require lower skills than migrants actually possess, loneliness, and so on. Therefore, when drawing conclusions on the differences in SWB between locals and immigrants, it is recommended that data be disaggregated for immigrants by length of stay.

Coherence: Possibilities for comparison across data sources are limited. Comparisons across countries/regions/municipalities – especially SILC data – are recommended for analytical purposes.

Further critical comments: -

SR: Indicator 73: [SUBJ] Tolerance towards foreigners (foreign workers)

Data collected/Definitions

Tolerance towards foreigners can be framed as tolerance, or attitudes towards migrants, or more specifically towards migrant workers

Data availability and Collection process

Variant 1) Data from YOUMIG small-scale survey are available only for 2018 and only at LAU2 level.
Variant 2) Data from Eurobarometer are available for the years 2014-2018 only at the national level. For information on data collection, see http://ec.europa.eu/COMMFrontOffice/publicopinion/index.cfm
Variant 3) Data from ESS are available for the years 2010, 2012, 2014, 2016, only at the national level. For information on data collection, see https://www.europeansocialsurvey.org/

Development process

Variant 1) Indicator development: Data query from the YOUMIG survey dataset, using the following variables:

- Immigrants take jobs away from natives in the country
- A country's cultural life is undermined by immigrants
- Immigrants make crime problems worse
- Immigrants are a strain on a country's welfare system
- In the future the proportion of immigrants will become a threat to society
- For the greater good of society it is better for immigrants to maintain their distinct customs and traditions
- Immigrants from Bosnia and Herzegovina take jobs away from natives in the country
- A country's cultural life is undermined by immigrants from Bosnia and Herzegovina
- Immigrants from Bosnia and Herzegovina make crime problems worse
- Immigrants from Bosnia and Herzegovina are a strain on a country's welfare system
- In the future the proportion of immigrants from Bosnia and Herzegovina will become a threat to society
- For the greater good of society it is better for immigrants from Bosnia and Herzegovina to maintain their distinct customs and traditions

Variant 2) Data available: Data query from the ESS dataset, using the following variables:

- Would you say it is generally good or bad for [country]'s economy that people come to live here from other countries?
- Would you say that [country]'s cultural life is generally enriched or undermined by people coming to live here from other countries?
- Is [country] made a better or a worse place to live by people coming to live here from other countries?

Data use restriction, coverage and frequency of production

Variant 1) Data of SSS is only for YOUMIG-partners. Data covers only the respondent in the sample.
Variant 2) Data is public. On data coverage, please consult ESS, see https://www.europeansocialsurvey.org/

Testing

Relevance: Public opinion and attitudes towards migrants are high on the political agenda of many European countries. Increasing concerns about the integration of migrants in society might: boost support for parties of the "radical right" and diminish levels of interpersonal trust and collaboration. Further, such concerns might increase levels of hostility, leading to acts of aggression towards migrants being condoned and increasing the chance of discrimination towards migrants in the labour market and everyday situations. This is a sensitive topic, and public opinion can be influenced/distorted by mass media.

Accuracy:

- **Variant 1)** Due to the coverage issues related to quota sampling, valid statements based on the survey can be made only with reference the respondents. Data should not be generalised. Thus, accuracy is limited.
- **Variant 2)** European Social Survey data should be considered accurate at the national level. For more details on the methodology and quality of Eurobarometer see https://www.europeansocialsurvey.org/

Timeliness:

- **Variant 1)** Data collection was carried out in autumn 2018.
- **Variant 2)** Data collection is carried every two years, for more details on updating European Social

Survey data, please consult https://www.europeansocialsurvey.org/

Accessibility:

- **Variant 1)** Data accessible upon request
- **Variant 2)** Data accessible at https://www.europeansocialsurvey.org/

Interpretation: Low levels of trust towards migrants as a whole, or towards particular ethnic groups, not only negatively impacts the success of integration of the immigrant group, but also limit the opportunities of second-generation migrants (children of immigrants) in such spheres as education and the labour market. Discrimination can be based on visible characteristics such as differences in appearance and/or names. One of the possible consequences of discrimination is an outflow of immigrants from their host country, potentially associated with a loss of human capital, a weakened labour force, a lower income tax collection and similar negative consequences.

Conversely, high levels of trust towards migrants point to: the readiness of a society to support the integration of migrants at the local level, the active introduction of migrants to the local community, as well as the wider population's support of national projects and directives promoting migrant integration.

Coherence: Possibilities for comparison across data sources are limited due to different time frames, and questions asked. Comparisons across countries/regions/municipalities are recommended for analytical purposes.

Further critical comments: -

SR: Indicator 75: Intentions to migrate within next five years, [if possible] intended destination, duration of absence

Data collected/Definitions

Intentions to migrate can be assessed with help of the following and similar questions:

- Do you intend to leave this country to go and live in another country? (Yes, No, Undecided)
- Do you have specific plans to leave or do you just have a general feeling that you would like to leave? (Specific plans, General feeling)
- Where do you think you will go?

Data availability and Collection process

Variant 1) Data from YOUMIG small-scale survey are available only for 2018 and only at LAU2 level.
Variant 2)online; Group 484 conducted a survey "Migratory Potential of Serbia", which is available under http://grupa484.org.rs/wp-content/uploads/2012/06/Migracioni-potencijal-Srbije-2009.pdf

Development process

Indicator development: Data query from the YOUMIG survey dataset, using the following variables:

- Now you live in Kanjiža. Ideally, if you had the opportunity, would you like to move to another country, or to another municipality in this country?

The dataset provides the mean score for the indicator on the level of Kanjiža in 2018

Variant 2) In the survey, the items were:

- Have you ever considered leaving Serbia for job (or other) reasons and settling down in another country for some time or permanently?
- How likely are you to realise your migration intentions, and move from Serbia?

Data received in accordance with request.

Data use restriction, coverage and frequency of production

Data are only for YOUMIG-partners.

Testing

Relevance: The Danube Region is an area with deep historical and economic relations between the countries. With the fall of the communist regimes in the Eastern Europe and the enlargements of the European Union, the migration flows within the region has been intensified. Up to 40% of all immigrants in each country come from the other countries of the Region. The migrant pool has been becoming younger and more educated. In the region, the youth is a highly dynamic group that accounts for more than a half the incoming migrants. A decision to move (emigrate) can impact both sending and receiving country.

Accuracy:

- **Variant 1)** Due to coverage issues related to quota sampling, valid statements based on the survey can be made only with reference to the respondents. Data should not be generalised. Thus, accuracy is limited.
- **Variant 2)** No information is available concerning accuracy.

Timeliness: Data collection was only once for both.

Accessibility: Data accessible upon request

Interpretation: Although intentions to migrate are not always realised, increasing levels of youth migration may indicate that the social, economic and sometimes political conditions in the country of origin do not match the ambitions of young people, for example, in terms of availability of jobs, low wages, and low satisfaction with local educational programmes.

To understand better which population subgroups are more likely to emigrate, additional information is needed. Those who report undertaking *active measures*, such as looking for a job abroad, and devising a*specific plan* are more likely to emigrate than those who simply consider this option a hypothetical. Intended *temporary migration* raises issues such as the reintegration of returnees, recognition of academic qualifications, the increasing number of transnational families, and (in the case of return in later stages of life) pension system sustainability.

Disaggregation by *educational level* helps to assess the risk of "brain drain" and the resultant loss of innovation. Information on work skills demanded by the labour market means that conclusions can be reached concerning: the (un)balancing effect of potential migration on both the skills' mismatch and unemployment in the labour market; the perception of low pay for high-demand professions; the lack of options for youth with specific

qualifications, etc.
Coherence: Possibilities for comparison across data sources are limited due to different time frames, geographical levels and questions asked. Comparisons across countries/regions/municipalities for analytical purposes are recommended.
Further critical comments: -

SR: Indicator 105: Regional GDP per capita (NUTS3), GDP per capita

Data collected/Definitions:

GDP per capita is based on purchasing power parity (PPP). PPP GDP is gross domestic product converted to international dollars using purchasing power parity rates. An international dollar has the same purchasing power in GDP terms as the U.S. dollar has in the United States. GDP at purchaser's prices is the sum of gross value added by all resident producers in the economy plus any product taxes and minus any subsidies not included in the value of the products. It is calculated without making deductions for depreciation on fabricated assets or for the depletion and degradation of natural resources. Data are in current international dollars are based on the 2011 ICP round.

Data availability and Collection process

Variant 1) National level: World Bank, International Comparison Program database,https://data.worldbank.org/indicator/NY.GDP.PCAP.PP.CD?end=2017&start=2010&year_high_desc=true

Variant 2)from the Statistical Office of the Republic of Serbia, National accounts.

Development process

Variant 1) concerns GDP per capita, PPP (current international $) at the national level between 2010-2017 and is available online.

Variant 2)contains GDP given in national currency (RSD) and in Euro at the national level between 2010 and 2017.

Data use restriction, coverage and frequency of production

Variant 1) Data are public. Coverage is not interpretable in this case. On the frequency of updating data, please consult https://data.worldbank.org/indicator/NY.GDP.PCAP.PP.CD?end=2017&start=2010&year_high_desc=true

Variant 2) Data are public. Coverage is not interpretable in this case. Data are revised for the period 2015-2017 so the 2014 seriesis not continuous.

Testing

Relevance: National GDP per capita, or its regional counterpart, serves to illustrate the living standards in the respected geographic area. A high GDP per capita is usually associated with strong economies, booming production, and developed social services. GDP gives an approximation of economic activity. When it is perceived as low, it may serve as a push factor and stimulate out-migration; while in the opposite scenario it may serve as a pull factor and stimulate in-migration.

Accuracy:

- **Variant 1)** World Bank data should be considered accurate at the national level. For more details on the methodology and quality of World Bank data see https://data.worldbank.org/indicator/NY.GDP.PCAP.PP.CD?end=2017&start=2010&year_high_desc=true
- **Variant 2)** The dataset is considered to be accurate.

Timeliness:

- **Variant 1)** Data production is based on the data production system of national statistical institutes. For more details on updating World Bank data, please consult https://data.worldbank.org/indicator/NY.GDP.PCAP.PP.CD?end=2017&start=2010&year_high_desc=true
- **Variant 2)** Data are produced on yearly basis.

Accessibility:

- **Variant 1)** Data accessible at https://data.worldbank.org/indicator/NY.GDP.PCAP.PP.CD?end=2017&start=2010&year_high_desc=true
- **Variant 2)** Data accessible upon request

Interpretation: *Countries with higher GDP per capita on average experience higher rates of net migration per 1000 population*, namely the difference between incoming and leaving flows of migrants is positive, and the rate of this difference relative to the population number is higher in countries with a higher GDP.

GDP figures, however, need to be interpreted in comparison to those of neighbouring, or other reference

countries. A country with a relatively high GDP per capita and high GDP growth rates, is more likely to be perceived as a country with a strong economy and good economic prospects, and thus act a magnet for immigrants.

The indicator assumes an equal division of GDP figures in the population, in other words, inequality of income and wealth distribution across population groups is not accounted for. High GDP figures do not always coincide with high levels of subjectively perceived living standards, and SWB indicators and trust should supplement the analysis.

Coherence: Possibilities for comparison across data sources are limited due to different time frames, geographical levels and questions asked. Comparisons across countries/regions/municipalities for analytical purposes are recommended.

Further critical comments: -

SR; Indicator 107: Business demography: number of active enterprises; by size, ownership (local/foreign owned)
Data collected/Definitions
Business demography refers to the population of firms taking into consideration such aspects as the total number of active enterprises in the business economy, their birth and death rates. The number of active enterprises (in the business economy) is an important indicator. An active enterprise is an enterprise that had either turnover (totals invoiced by the unit) or employment at any time during the reference period.
Data availability and Collection process
Data is available online from the Statistical Office of the Republic of Serbia: http://www.stat.gov.rs/WebSite/repository/documents/00/02/29/64/08-SPS-Strukturne_poslovne_statistike.pdf only for national in 2016.
Development process
Data are available online, but only at the national level for national companies (without foreign ownership) for the year 2016. Data received in accordance with request.
Data use restriction, coverage and frequency of production
Data are public.
Testing
Relevance: The indicators of business demography by analogy to human demographic processes reflect the total number of active enterprises in the business economy, their birth and death rates; in other words, they describe the population size of firms, and the share of firms created and closed each year. Information on the number of employees and the types of legal organisation and industry is collected. The figures help in analysing the propensity to start a new business, and the contribution of newly opened firms to job creation. **Accuracy**: Data are considered to have low accuracy. **Timeliness**: Data are produced only once. **Accessibility**: Data accessible upon request **Interpretation**: Disaggregation by *industry* helps to assess which sectors of the economy are growing or contracting, and which specific skills in the labour force are in demand or will become redundant. Information on the *size* of the business and the *nationality* of the owner can be used to address the discussion on ethnic entrepreneurship. In some cases, entrepreneurship becomes a major route for labour market integration of migrants; thus, any analysis should be joined by a discussion on immigrant discrimination, recognition of formal qualifications, and measures to promote local language proficiency. **Coherence**: Data are internally coherent; comparisons with other variants are not applicable. Comparisons across countries/regions/municipalities for analytical purposes are recommended. **Further critical comments:** -

SR: Indicator 123: Disposable household income per capita

Data collected/Definitions

Disposable household income refers to the amount of money that households have available for spending or saving after income distribution measures have taken effect; the latter comprising payment of taxes, social contributions, and social benefits received. Per capita refers to the disposable household income per person/inhabitant of the area.

Data availability and Collection process

Data are available online from the Statistical Office of the Republic of Serbia and a small-scale-survey.

Development process

Variant 1)*Item in the Questionnaire:*

- Thinking of all possible sources of income, what is your household income after deductions for income tax, National Insurance etc. that you received in the month prior to the interview?

The dataset provides the mean score for the indicator at the level of Kanjiža in 2018 in RSD and Euro.

Variant 2) In SORS, data can be accessed online. Data were given on NUTS 2 level for Beogradski region, Region Vojvodine, Region Šumadije i Zapadne Srbije, Region Južne i Istočne Srbije and National level for 2010-2017. Data received in accordance with request

Data use restriction, coverage and frequency of production

Data are only for YOUMIG-partners.

Testing

Relevance: Disposable household income refers to the amount of money that households have available for spending or saving after income distribution measures have taken effect. Thus, the measure reflects individual/family living standards. In the majority of countries under consideration, wages and salaries are the main component of household incomes. Higher living standards can be a factor that dissuades individuals and families from out-migration and emigration, as well as a pull factor stimulating both the in-migration of foreign nationals and the return home of emigrants.

Accuracy:

- **Variant 1)** Due to coverage issues related to quota sampling, valid statements based on the survey can be made only in reference to the respondents. Data should not be generalised. Thus, accuracy is limited.
- **Variant 2)** Data are considered to be accurate.

Timeliness:

- **Variant 1)** Data produced only for YOUMIG-partners.
- **Variant 2)** Data production frequency is yearly.

Accessibility: Data accessible upon request

Interpretation: Indicator figures should be considered relative to a measure of the living standards in the society/municipality. Disposable household income can be compared to national/regional poverty thresholds, which can in turn be used to determine whether a household belongs to a poor population stratum. Poverty is one of the conditions that prevent individuals from living healthy and fulfilling life and being socially included within a society. In recession conditions, *women* and *youth (including children),* and *populations with a migratory background*, are likely to be more vulnerable to poverty. Poverty may also stimulate household indebtedness, which despite stimulating household consumption in the short run, leads in the case of long-term debt, to negative consequences for the economy and GDP growth.

The lower the disposable household income in the population, relative to that of neighbouring countries, the higher the rate of emigration (or temporary out-migration) as a coping mechanism, often resulting in divided families and children left behind.

Coherence: Data are internally coherent; comparisons with other variants are not applicable. Comparisons across countries/regions/municipalities for analytical purposes are recommended.

Further critical comments: -

SR: Indicator 137: Population, by activity status; by sex, age (5-y. intervals), national-foreign
Data collected/Definitions
In the labour market, population aged at least 15 years old (most often, 15-64 y.o) is divided into (economically) active and inactive. The former group includes employed (civilian employment plus the armed forces) and unemployed. The currently (economically) active population is called labour force. The indicator is calculated as a percentage of people in activity and in inactivity. Hence, a number of active people should be divided by the total population above 15 y.o. (15-64 y.o.).
Data availability and Collection process
Data are available **Variant 1**) online from the Statistical Office of the Republic of Serbia, LFS. Data are online at the national level for foreign/national 2010-2017 by age groups. **Variant 2)** online from the Statistical Office of the Republic of Serbia, 2011 census. Available on national, NUTS 2, and LAU2 level for foreign/national in 2011 by age groups.
Development process
Indicator values requested from the National Statistical Office on 14 September 2018. On the same day, it was confirmed that the indicator values would be sent to us by 10 October 2018. Indicator values received from the National Statistical Office on 2 October 2018.
Data use restriction, coverage and frequency of production
Variant 1) Data are only for YOUMIG-partners. Note: For the period 2008-2013 data in cells with less than 1600 occurrences are not reliable (coloured red); data in cells with occurrences between 1600-7000 should be analysed with caution (coloured green). **Variant 2**) Data are public.
Testing
Relevance: The economically inactive population includes schoolchildren, students, pensioners, and housewives or husbands (provided that they are neither working nor available for work); some of these groups may be of working-age. In the case of youth, the NEET part of the population (young people in neither employment, nor education nor training) warrant special attention due to the obvious loss of human capital and productivity. The economically active part of the population serves as an approximation of the labour supply in a country/region/municipality; the labour force being that part of the population involved in the production and distribution of goods and services, or actively searching for employment. **Accuracy**: • **Variant 1)** Data are considered to be accurate. • **Variant 2)** Low accuracy is suspected. **Timeliness**: • **Variant 1)** Data are produced yearly. • **Variant 2)** Data is only produced for the 2011 census. **Accessibility**: Data accessible upon request **Interpretation**: Disaggregation by *country of citizenship*, and in addition by *sex*, allows the behaviour of the native and foreign population to be compared (e.g., by providing data on whether native and foreign women have the same opportunities and motivations to work in the labour market). A growing share of economic activity in the working age population might indicate a shrinking labour force, leading to slower economic development and productivity losses, a higher burden on social services and diminished income tax revenue collection. Separate estimations by *age group* can help identify groups with a low activity share, that is, those disproportionally affected by labour market segmentation. Where the disadvantaged group consists of youth, measures leading to the acquisition of skills demanded by the labour market, and the facilitation of the transition from study to work should be undertaken. **Coherence**: Data are internally coherent; comparisons with other variants are not applicable. Comparisons across countries/regions/municipalities for analytical purposes are recommended. **Further critical comments**: -

SR: Indicator 180: Workforce in healthcare/Shortage of work in healthcare/Healthcare workforce gap
Data collected/Definitions
Health workers are "all people engaged in actions whose primary intent is to enhance health".
Data availability and Collection process
Variant 1) Data from Eurostat database are available only for the years 2010-2015 (and in one case until 2016). Data available at the national level and NUTS2 levels. Eurostat prepares estimations based on input data provided by national statistical institutes. **Variant 2)** Data are available at the National Institute of Public Health. Data consists of two indicators: 1) Number includes medical doctors, medical doctors with specialist training and specialists - all levels of health care. The numbers are available 2010- 2017, at national, NUTS 3 (Severnobanatska oblast), and LAU2 (Kanjiža) level. 2) Number includes general practitioners in primary practice services. The numbers are available 2010- 2017, at national and NUTS 3 (Severnobanatska oblast) level.
Development process
Data received in accordance with request
Data use restriction, coverage and frequency of production
Data are public.
Testing
Relevance: Indicators of healthcare provision are linked to a region's level of urban development and attractiveness since they directly affect the quality of life at the local level (and serve as a pull factor attracting migrants while providing reasons for the native population to remain). Moreover, gaps in health care provision and accompanying migration schemes stimulate the in-migration of healthcare and medical professionals; this serves as a huge pull factor directing relevant migration flows into more economically stable and wealthier countries of the region. For sending countries, gaps in the relevant segments of the labour market appear, while the attractiveness of the receiving areas is further established. **Accuracy**: Data are considered to be accurate. **Timeliness**: • **Variant 1)** On the frequency of updating Eurostat data, please consult the Eurostat database • **Variant 2)** Data are produced yearly. **Accessibility**: • **Variant 1)** Data accessible in the Eurostat database https://ec.europa.eu/eurostat/data/database) • **Variant 2)** Data accessible upon request **Interpretation**: An increasing number of doctors per 100,000 (or per 1,000) inhabitants is associated with an increasing quality of life in a municipality/region, in addition to higher health care coverage for the population. **Coherence**: Possibilities for comparison across data sources are limited due to different time frames, geographical levels and questions asked. Comparisons across countries/regions/municipalities for analytical purposes are recommended. **Further critical comments**: -

SR: Indicator 6: Second-generation migrants
Data collected/Definitions
Eurostat offers two possible definitions: Type 1: native-born persons with one parent born abroad; Type 2**:** native-born persons with both parents born abroad. Serbia used the definition: ***A person who was born in and is residing in a country that at least one of their parents previously entered as a migrant or person with migration background***.
Data availability and Collection process
Data were collected by means of a small-scale survey conducted in autumn 2018 in Kanjiža.
Development process
Indicator development according to the question in the small scale survey: **13. Is it at least one of your parents born abroad?** *Ex-YU countries are considered as abroad* a. Yes Country of birth of mother Country of birth of father b. No
Data use restriction, coverage and frequency of production
Data are only available for YOUMIG-partners. Data cover only the population atKanjiža/LAU2 level. Data were produced only once in autumn 2018.
Testing
Relevance: Indicator 6 focuses on the target population in relation to its demographic and economic characteristics to create policies for better integration into society, the labour market and the education system. **Accuracy**: Due to coverage issues related to quota sampling, valid statements based on the survey can be made only in reference to the respondents. Data should not be generalised. Thus, accuracy is limited. **Timeliness**: Data produced in a survey in autumn 2018. **Accessibility**: Data accessible upon request. **Interpretation**: The total population of a country can be divided into the native-born (who havea native background), first-generation immigrants (foreign-born population), and second-generation migrants (native-born to at least one foreign-born parent). (Note: the statistical offices of different countries sometimes use different definitions for 'people with a migration background'.) While second-generation migrants are not immigrants in the true sense of the word, they are highly influenced by migration and might even have experienced a number of integration difficulties. For instance, the second generation can show differences - in comparison to the native population – in terms of entering the education system, transitioning from education to work, in the labour market and in patterns of family formation. An increasing number (and share) of second-generation migrants can signal a growing share of disadvantaged (young) people in the education and labour market. In this respect, disaggregation by *age groups* can help to facilitate access to special study programmes and qualified teachers at different levels (e.g. early child development, or adult education). As for older groups, second-generation migrants - while doing better than first-generation ones in the labour market - might still encounter discrimination in the labour market (e.g. due to their foreign-sounding names), or be sorted into less favourable segments of the labour market owing to gaps in education. **Coherence**: Possibilities for comparison across data sources are limited due to different time frames, geographical levels and questions asked. Comparisons across countries/regions/municipalities for analytical purposes are recommended. **Further critical comments**: -

SR: Indicator 28: Number of transnational families

Data collected/Definitions

'"***Transnational' families are ones that live apart but who create and retain a sense of collective welfare and unity, in short 'familyhood', even across national borders***" (Bryceson and Vuorela 2002).

They include transnational couples (for example, migrant spouse/partner and non-migrant spouse/partner), migrant parents and their non-migrant children who remain at 'home', and migrants and their elderly non-migrant parents and siblings.

Data availability and Collection process

Data were collected at LAU2 level (Kanjiža) by means of a small-scale survey.

Development process

Indicator development: Data query from the YOUMIG survey dataset, using the following variables:
Do any members of your family presently live abroad?
If yes, for each member living abroad indicate

- Who (father, mother, husband, partner, sibling)
- Reason the person resides abroad (work – study – family reason (joint family member) - other (internship, voluntary activities, etc.)
- And duration of absence (year/month)

Small-scale survey conducted in autumn 2018. Full and revised dataset completed by December 2018.

Data use restriction, coverage and frequency of production

Data are only available for YOUMIG-partners.
Data cover only the population of Kanjiža at LAU2 level.
Data were produced only once in autumn 2018.

Testing

Relevance: Indicator 28 "Transnational families" is a contemporary phenomenon. Migration and integration policies are mostly designed for individual migrants and do not reflect the family dimension of migration. Leaving one's family to work abroad is often perceived as a temporary solution, when in fact, family reunification in the host country is often in the best interests of the migrant's family. To avoid such a partial understanding of the migratory process as much as unfocused policy making, this indicator could provide the possibility of an overview on potential migrants at the local level.

Accuracy: Due to coverage issues related to quota sampling, valid statements basis on the survey can be made only with reference to the respondents. Data should not be generalised. Thus, accuracy is limited.

Timeliness: Data were produced in a survey, autumn 2018.

Accessibility: Data are accessible upon request.

Interpretation: Transnational families are formed by individuals coming (or residing) in different countries, for instance, a native and foreign spouse forming a couple, migrant parents and their (non-migrant) children and other family members left behind in the sending country.

A rising number of transnational families in a country of destination is likely to a create demand for language training, for services related to academic degree recognition (e.g. translation services) and for labour market integration, as well as for re-training and additional educational programmes. Further, an increase in transnational families with family members left behind is likely to induce an increase in remittance flows to the sending countries of migrants.

This number is also positively linked to an increase in the number of second-generation migrants, namely children born to couples where at least one of the parents is foreign-born. It is known that second-generation migrants often encounter integration challenges on entering education, in addition to experiencing discrimination or a lack of opportunity to fully realise their human capital in the labour market. A policy action to guarantee equality of opportunity for second-generation migrants is needed, for instance, the introduction of early education and parental involvement in the educational process.

An increase in transnational families within a sending country is often related to an increase in the share of families whose main breadwinners have emigrated. On a positive note, an increase in remittance flows can be expected; and often such remittances are invested in construction or buying a flat/house. On the downside, however, children left behind often lag behind their peers in terms of educational performance and school attendance, especially in the case of female children. Moreover, a rise in the number of multi-generational

households can be expected (e.g., elderly parents taking over the care of their grandchildren). This in turn can be associated with an increase in supply of rental property. **Coherence**: Possibilities for comparison across data sources are limited due to different time frames, geographical levels and questions asked. Comparisons across countries/regions/municipalities for analytical purposes are recommended. **Further critical comments**: -

SR: Indicator 152: Employment rate by education levels

Data collected/Definitions

Employment rates are defined as a measure of the extent to which available labour resources (people available to work) are being used. They are calculated as the ratio of the employed to the working age population (OECD)

Data availability and Collection process

Variant 1) *Item in the Questionnaire:*
Data were collected at the LAU2 level (Kanjiža) by means of a small-scale survey.
Variant 2) in SORS, data can be accessed online. Data were given at NUTS 3 (Severnobanatska oblast) and national level for 2010-2017, for all educational levels.

Development process

Variant 1) Indicator development: Data query from the YOUMIG survey dataset, using the following variable:
14. Are you currently...? *If you belong to more than one group (e.g., you are working and a student) please mark the ones that apply.*

- Employed
- Unemployed and currently looking for a job
- Unemployed and currently not looking for a job
- Self-employed
- Student
- On maternity leave
- Other: _____

Small-scale survey was conducted in autumn 2018. Full and cleaned dataset was finished by December 2018.
Variant 2) Data received in accordance with request

Data use restriction, coverage and frequency of production

Variant 1) Data are only available for YOUMIG-partners.
Data cover only population of Kanjiža at LAU2 level.
Data produced once in autumn 2018.
Variant 2) Data are public and produced yearly.

Testing

Relevance: Indicators 152, 156, and 166 show, indirectly, the current economic situation in the country and represent the main push factors that young people use to justify their reasons for leaving the country - unemployment and poor living standards. These data (in addition to the current state and needs of the labour market) show the need for improved educational policies for youth on the part of authorised institutions and their engagement in retraining programmes in relation to the in-demand areas of the job market.
Accuracy: Due to coverage issues related to quota sampling, valid statements based on the survey can only be made with reference to the respondents. Data should not be generalised. Thus, accuracy is limited.
Timeliness: Data were produced in a survey, in autumn 2018.
Accessibility: Data are accessible upon request.
Interpretation: The employment rate by education levels illustrates (a) the availability of relevant occupational opportunities in the local labour market, (b) the adequacy of wages relative to the aspirations of workers across different educational levels. Mismatches between income/salary aspirations and what the labour market offers, and/or between the educational structure and labour market demand might serve as a push factor for people considering out-migration.
The employment rate characterises a share of the employed population in the respective working age population, in this case within educational groups. Such a disaggregation allows an assessment of labour market disturbances across all levels of skills/formal qualifications. Thus, a high employment rate across all education levels would suggest a "healthy" situation in the labour market, namely a match between the education structure in the population and that demanded by the labour market, in addition to a wider acceptance of salaries/wages. If we observe a high employment rate among individuals with a basic level of education (low-skilled), and a low employment rate among those possessing tertiary-level education (high-skilled), this can point to a scarcity of vacancies for high-skilled workers, which in turn might indicate a mismatch between their specialised skills and the structure of production/industries. In this scenario, we might

expect an outflow of the high-skilled population from the municipality ("brain drain").
Coherence: Possibilities for comparison across data sources are limited due to different time frames, geographical levels and questions asked. Comparisons across countries/regions/municipalities for analytical purposes are recommended.
Further critical comments: -

SR: Indicator 156: Job vacancy rate by occupations/sectors

Data collected/Definitions

Job vacancy statistics provide information on unmet labour demand; the information is useful in the analysis of business cycles and mismatches in the labour market. The number of job vacancies is the number of unfilled positions in the labour market.

Data availability and Collection process

Variant 1) Data are available at the National Employment Service.
Indicator values requested from the NES on 19 September 2018. On the same day, it was confirmed that the indicator values would be sent to us by 10 October 2018. On 28 September 2018, we obtained the first set of requested data from NES that were incomplete and unsuitable for calculating rate, so we repeated the request again with additional data clarification on 3 October 2018. On 5 October, we were informed that NES was not able to provide the needed data for calculating the indicator. An additional drawback in indicator testing is the inability to group obtained data by occupation in accordance with the Template matrix.
Variant 2) Data were collected at LAU2 level (Kanjiža) by means of a small-scale survey.

Development process

Variant 1) Data available at the National Employment service and received in accord with request.
Variant 2) Indicator development: Data query from the YOUMIG survey dataset, using the following variables:
15. If you work (worked), which of the following categories best describes the sort of work you do (did)?
There is no right or wrong answer. Just choose the category you think fits best.

- Professional and technical occupations such as: doctor – teacher – engineer – artist – accountant
- Higher administrative occupations such as: banker – executive in big business – high government official – union official
- Clerical occupations such as: secretary – clerk – office manager – book keeper
- Sales occupations such as: sales manager – shop owner – shop assistant – insurance agent
- Service occupations such as: restaurant owner – police officer – waiter – caretaker – barber– armed forces
- Skilled worker such as: foreman – motor mechanic – printer – tool and die maker – electrician
- Semi-skilled worker such as: bricklayer – bus driver – cannery worker – carpenter – sheet metal worker – baker
- Unskilled worker such as: labourer – porter – unskilled factory worker
- Farm worker such as: farmer – farm labourer– tractor driver– fisherman
- Don't know

Small-scale survey was conducted in autumn 2018. Full and cleaned dataset was finished by December 2018. Due to low the response rate in the survey, no dataset could be created.

Data use restriction, coverage and frequency of production

Variant 1) Data are public. Data are produced yearly.
Variant 2) Data cover only the population of Kanjiža at LAU2 level. Data produced only once in autumn 2018. Due to the low response rate and low quality, the data are not suitable for further analysis and publishing (only 21 enterprises responded to the business pay roll out of 50 enterprises defined by the sample. In these 21 responses - the data are of a low quality / incomplete answers were given (mentioned in the SSS methodology – page 223).

Testing

Relevance: The debt-to-income ratio is understood as the ratio of household debt to disposable income. Often it is mortgage payments that constitute the biggest share of this debt. High property prices require larger mortgages, and thus higher monthly payments. The desire to acquire a property might become a push factor stimulating out-migration. A high debt-to-income ratio due to low incomes can also be considered a push factor favouring migration to a municipality/country with higher (perceived) living conditions. A high debt-to-income ratio indication can be a result of (a) *low incomes*, (b) *high indebtedness of households*, for example, due to low - with respect to living standards - incomes, and (c) *high property prices*. Thus, access to the separate components of the ratio might be useful to assess the source of the ratio value and its changes.

Accuracy:

- **Variant 1)** Data are considered to be accurate.
- **Variant 2)** Due to coverage issues related to quota sampling, valid statements based on the survey can be made only with reference to the respondents. Data should not be generalised. Accuracy is not given.

Timeliness:

- **Variant 1)** Data are produced yearly.
- **Variant 2)** Data were produced in a survey, in autumn 2018.

Accessibility:

- **Variant 1)** Data are accessible upon request.
- **Variant 2)** Data are not accessible.

Interpretation: Job vacancy rate disaggregation allows imbalances and mismatches in the labour market across occupations/sectors to be assessed. On the one hand, such imbalances can point to the low economic attractiveness of an occupation/sector for specialists who as a result, may be compelled to emigrate. On the other hand, this indicator can signal which occupations/sectors are likely to be populated in the future by immigrants from less developed/poorer countries.

A high job vacancy rate for an occupation/sector may indicate a lack of specialists or a mismatch between education skills and industry demand. In order to satisfy relevant production needs, a number of (usually long-term) interventions/actions can be undertaken including the reassessment of educational programmes and the introduction of specialised training programmes, subsidies for employers in order to raise salaries/wages in their respective occupations/sectors (thus increasing their attractiveness), and the introduction of preferential emigration for occupations with high vacancy rates.

Coherence: Possibilities for comparison across data sources are limited due to different time frames, geographical levels and questions asked. Comparisons across countries/regions/municipalities for analytical purposes are recommended.

Further critical comments: -

SR: Indicator 166: Temporary/permanent contracts among employed youth
Data collected/Definitions
Temporary employment includes wage and salary workers whose job has a pre-determined termination date. A job may be considered temporary if the employer and employee agree that its end is determined by objective conditions such as a specific date, the completion of a task or the return of another employee who has been temporarily replaced (usually stated in a work contract of limited duration). Typical cases are: (a) persons with seasonal employment; (b) persons engaged by an agency or employment exchange and hired by a third party to perform a specific task (unless there is a written work contract of unlimited duration); (c) persons with specific training contracts.
Data availability and Collection process
Data available at the National Statistical Office, in the Labor Force Survey. It covers 2010-2017 at national and NUTS 3 level. Variation: Only persons aged 15-34 by sex and length of contract levels. Years: 2010-2017.
Development process
Indicator values requested from the National Statistical Office on 19 September 2018. On the same day it was confirmed that the indicator values would be sent to us by 10 October 2018.
Data use restriction, coverage and frequency of production
Variant 1) Data are public and produced yearly. **Variant 2)** Reliable data is not available due to small sample size.
Testing
Relevance: Indicators 152, 156, and 166 show, indirectly, the current economic situation in the country and represent the main push factors that young people use to justify their reasons for leaving the country - unemployment and poor living standards. These data (in addition to the current state and needs of the labour market) show the need for improved educational policies for youth on the part of authorised institutions and their engagement in retraining programmes in relation to the in-demand areas of the job market. **Accuracy**: Due to coverage issues related to quota sampling, valid statements based on the survey can be made only in reference to the respondents. Data should not be generalised. Thus, accuracy is limited. **Timeliness**: Data were produced in a survey, fall 2018. **Accessibility**: Data are accessible upon request. **Interpretation**: Permanent employment is associated with stability of employment arrangements and income, and higher levels of certainty, which in turn enable long-term planning, for instance, in relation to family planning, and/or the purchase of property. Temporary employment is associated with higher levels of uncertainty and a higher degree of mobility. The share of temporary/permanent contracts illustrate the degree of uncertainty (and potential mobility) of youth. Disaggregation by *age groups* allows the assessment of education-to-job transition trajectories. **Coherence**: Possibilities for comparison across data sources are limited due to different time frames, geographical levels and questions asked. Comparisons across countries/regions/municipalities for analytical purposes are recommended. **Further critical comments**: -

4. Small-Scale Survey (SSS)

The main scope of the small-scale survey collection was two-fold.

On the one hand, we aimed to test a selected subset of indicators (Core indicators, and some Extra indicators) addressed within the Working Package 4 “Improved testing” collected at municipality level. One the other hand, we wanted to ensure the comparability of the data collection results, at least on the level of homogeneous definitions and question formulations applied across the countries.

In multiple cases, no alternative source of data at municipal level was available, for example, which were not defined in official statistical programmes and plans, or collected within official statistical systems but not representative at the local level, or collected sporadically via ad-hoc surveys. In such cases, YOUMIG SSS served as a new and unique source of up-to-date information.

In order to meet all the objectives, a joint questionnaire was developed by the IOS Regensburg and the Leading Partner teams. The questionnaire underwent two rounds of discussions and consultations with partners via email. The choice of the questions’ formulations was made to ensure maximum comparability to the reputable data sources that are used for the national and meso-regional information collection.

The local partners, in turn, added a limited number of additional questions in order to collect up-to-date information that would be relevant for the ongoing municipality pilot projects.

The inter-country comparisons - with the help of the data collected - should be made with caution.

- The partners used a mix of data collection methods: in three cases the Pencil and Paper face-to-face interview were used, in two cases an online questionnaire, and in three cases a mix of the methods
- Different sampling methodology is used
- The minimum age of the respondents differs across countries (18-34 in Romania and Slovenia; widely defined as “students” in Austria, and 15-34 in other countries)
- In the case of Slovakia, a dwelling is used as a sample unit

Table 2: Summary information on the Small Scale Survey collection across YOUMIG-partners

	Austria: **Graz**	**Bulgaria:** **Burgas**	**Hungary:** **Szeged**	**Romania:** **Sfântu Gheorghe**	**Slovenia:** **Maribor**	**Slovakia:** **Bratislava - Rača**	**Serbia:** **Kanjiža**
Country-specific information added	Main focus of the data collection: Future migration desire or prospects to migrate; future plans to spend the future in Graz; life quality for students ("young people") in Graz; living circumstances of students ("young people") in Graz; attitudes towards migrants in Graz; discrimination as a foreigner in Graz	Intentions to migrate; Aspirations of youth; Rental costs vs. household income	Questions on short- term migration experiences; questions on trust, satisfaction and life aspirations	Top-5 destinations by size of diaspora	Segregation by neighbourhood; top-5 occupations performed by migrants	University name for students; outbound mobility at tertiary level; application for social housing	Second-generation migrants; transnational families; employment rate by education levels; job vacancy rate by occupation/sector; temporary/permanent contracts among employed youth
Questionnaire translation and testing	Translation: internal; Testing: four students, YOUMIG experts; two questionnaire pre-tests	Translation: internal; Testing: external experts	Translation: HCSO (internal); proofreader	Translation in two languages (Hungarian and Romanian)	Translation: internal	Translation: internal; external proofreader. Testing: various interviewees	Translation: SORS into Serbian, court translator into Hungarian

Study design	Online survey; distribution of the link through the Austrian students' Union for eight universities, newspapers	Face-to-face interview - paper assisted (PAPI)	Paper and Pencil Interview (PAPI)	Paper and Pencil Interview (PAPI)	First stage: phone interviews (355); Second stage (to reach the required number of observations): email (75) and in person (71)	Online data collection https://docs.google.com/forms/d/e/1FAIpQLSec2-wXWDwvURwvt50p5wFouFRJcoIa-K0oBP1ynZTo2XkjA/formResponse	Face-to-face; when impossible, then online data collection, guided via Skype
Data collector	No external data collector; University of Vienna and City of Graz	TSINO TIM-8 Ltd., consulting company	BOSSAWA Trade and Service Limited Liability Company	TRANSOBJECTIVE S.R.L	PAMETEN, Center znanja, vizij in uspešnosti ; STATISTIKUM, statistične in marketinške raziskave ter izobraževanja	INFOSTAT - the Centre for Social Research (CSR) supported by the Department of Human Geography and Demography - Faculty of Natural Sciences (Department), Comenius University and city quarter Bratislava - Rača	IT company PONT; system from Subotica for the development of the online survey
Sample	International students, 15-34; target: 380, reached: 423 interviews	Individuals, 15-34: 200 interviews (as requested by NSI team): 50% - high-school and university students, 50% - recent graduates working or looking for a job. Approached via institutional channels and a youth network	Individuals, 15-34; 800 interviews; Sampling based on random starting point random walk, using quota sampling (quota based on HCSO urban audit data, 2016; age groups, sex)	Individuals, 18-34; 1100 interviews; stratified multi-level random sampling method, only one person per household; only those residing in the municipality	Individual, 18-34; 501 interviews (one invalid); resident in Maribor	150 dwellings; a random sample of the dwellings from all three local parts: Krasňany, Rača and Východné	Individuals, 18-34; Target: 500, reached 615 (36 invalid, 579 processed);resident in municipality of Kanjiža; quota sample

Absence/non response	N/A; non-response as an answer option	Approached individually; 10% non-response	Impossible to reach: ignored; absence of the household member: return. Non-response: no information recorded	In case of absence, field operator returned twice; in case of failure – reasons for failure	N/A	If no person can be reached, then a substitutive household with similar characteristics is selected	If person could not be reached, he/she substituted by individual with similar characteristics; cases with multiple missing answers were deleted
Quality assurance	Pre-tests of the questionnaire	Interviewer training	Interviewer training, guidelines; Data entry using "four eyes" principle	Hungarian and Romanian language of questionnaire; certified interviewers; guidelines for the fieldwork; quota tables	Representativeness by age and sex; certified firms for sample collection	Full-service professional survey team; pilot survey, correction for biases; weights to match the population structure	Interview training; expert advice in the event of queries from the interviewers' side
Representativeness	Only the total sample, but not its subgroups; females overrepresented, no doctoral students reached	Questionable/ low; mostly the town of Burgas, partial on villages	Yes	Yes	Yes	Yes. (Subject to post-stratification: 5y-age-groups, sex)	Yes. Weights should be applied

4.1. Austria: "Life Quality of Students in Graz and Future Prospects"

November 2018. Small-scale survey information request

Part 1. Preparation for Data Collection
Questionnaire Design

1. Questions selection

Sample idea: subgroup of "young" people who have a high risk of migration in the future or who have already migrated;

Number of answers needed to reach a representative sample (with a 0. 5% confidence interval): 380 answers

Potential subgroups: international students, international students from YOUMIG countries (unclear if a representative sample will be feasible)

The following main research interests are covered:

- Future desires to migrate or prospects of migration
- Plans to spend the future in Graz
- Quality of life for students ("young people") in Graz
- Living circumstances of students ("young people") in Graz
- Attitudes towards migrants in Graz
- Discrimination as a foreigner in Graz

The survey contains mainly ordinal and nominal data.

It is structured in four parts: a) the living situation in Graz; b) future prospects after studies; c) newcomers' evaluation of Graz; d) a statistical section

2. Translation

The survey was offered mostly in German. The questionnaire was translated to English as a second language by the UNIVIE team (Elisabeth Gruber, Petra Köck, Martina Schorn). The language was checked by four students doing a pre-test. No professional translation could be financed. Since the main target group was a) German speaking or b) not German speaking but not English native, the procedure was rated as qualified.

3. Survey design

The survey is an online survey by design. Questionnaires will be sent out via the Austrian student's union (Österreichische HochschülerInnenschaft, öH)as a link to all students in eight universities of the city of Graz. The study will be online from 15 October until15 November. On 5 November a reminder email will be send to all students. The online survey allows all students to be reached via their university email addresses and therefore guarantees a random sample.
Concerns about online surveys (such as limited digital participation) can be ignored in the chosen sample, since most students are required to have digital competences even prior to starting their studies. Tracking the IP-addresses of survey participants will aid the multiple filling-out of questionnaires. Data anonymity

will be guaranteed at the beginning of the survey and will be observed during the whole process of collecting and analysing data from the questionnaires.
To increase the response rate of questionnaires, the city of Graz will prepare giveaways and the survey will include a raffle of small prizes. The already-designed questionnaire will be prepared in the software "Unipark". Martina Schorn, who has already worked with this programme and who, before starting at the University of Vienna, had worked on questionnaire development for the previous five years, will be the quality control manager in the team. Otto Rath is active in supporting contact with öH and Elisabeth Gruber and Petra Köck will analyze the collected data and monitor the response rate. In the event of a small response rate, marketing measures, via social media and other avenues (student clubs, etc.), will be introduced.

Sampling and Data Collection Methodology

4. Getting out the survey

The survey was sent out only by means of the newsletters of the students' union of the universities of Graz; no direct mailing of the survey to email addresses was possible.
The survey was prolonged until the end of November, and all universities, excepting the technical ones, advertised the survey via the newsletter of the students' union. Further, Facebook ads on the city of Graz were created and certain contacts in addition to personal contacts and networks were used to meet the sample size quota.

5. Pre-test

Two pre-tests took place. The survey was adapted after the first pre-test phase and accepted in its final form after the second pre-test phase. The majority of changes consisted of the questionnaire being shortened after the first pre-test and the structure of the questions being adapted.

6. Sample selection

Total sample number: all students in Graz ~60.000 students;

Targeted sample size: 380; sample size achieved: 423

Subgroups identified:

- All levels of studying
- All universities in Graz
- All study programmes
- No residency in Graz as a requirement

Although our focus was not on quota sampling, we tried to get as many questionnaires as possible. Some subgroups were unable to be targeted sufficiently (gender: male; PhD-students); however, with others a good sampling size was reached (bachelor's/master's degree students; different universities; various study programmes);

Unfortunately, the sample was not representative of all intended subgroups:

- We reached far more female (~83%) than male students

- This can mostly be explained by the fact that a) the only Facebook ads created were targeted at the Department of Gender Studies of the city of Graz; b) we were unable to place advertisement through the newsletter of the Technical University

- For certain subgroups, for example, doctoral students, students from certain colleges (e.g., FH Joanneum)
- Some "thematic subgroups" will probably be difficult to cross tabulate (e.g., students from abroad)
- Limitations concerning sample size may possibly be overcome by weighing the results

Nevertheless, the trends are relatively clear and for the total sample, certain information can be removed from the survey.

Part 2. Data collection and preparation

7. Absence/non response

Only questionnaires that were filled in completely were collected

8. Quality assurance

Only the total sample is representative; subgroups might be able to be weighted to show representation

9. Data cleaning

Non-response was not possible as an individual category

10. Coding

Closed questions; therefore the codes had been developed previously

11. Timeline

- Until 15 September: questionnaire will be digitalized
- Until 15 September: city of Graz will prepare an invitation letter for (the previously informed) students' union in order to prepare officially for the survey's start
- Testing of the digital survey
- 15October: sending out the survey to all students
- Continuously: monitoring of the response rate
- 5-6 November: reminder email to all students
- 15 November: end of sampling
- Until end of November: adjusting the data base
- Until end of December: analysing the assessed data

Part 3. Insights from the first descriptive analysis

As of yet, there has been little time for thorough analysis, but in general, the first outcomes look very interesting - the city of Graz shared the same view on 29 November during the training session.

Most people taking part in the survey came to Graz to study, and the majority intend to move away on completion of studies. Interestingly, limited work opportunities in Graz are often cited as one of the main reasons for students opting not to remain in the city post-study, although in general terms, employment opportunities in the city are relatively good. Other reasons for leaving were mostly of a private nature, such as family or partners living in places other than Graz.

Most students consider it very probable that they will stay in Austria (almost 90%). Even so, living in a country other than Austria is still probable(around 30%).

When questioned, more than half of the students could imagine moving to a foreign country at some point after their studies. Around 15% had concrete plans concerning where to go. Most of the destinations imagined were European countries, mainly in Northern and Western Europe (Scandinavia, UK, Germany); outside Europe the US, Australia and Canada were most frequently cited.

4.2. Bulgaria: Burgas

Part 1. Preparation for the data collection

A questionnaire was developed by NSI – Bulgaria, based on the Top-16 core set of indicators for measuring youth migration and its effects, and on the joint questionnaire proposed by the IOS Regensburg and the LP. The content of the questionnaire was discussed with Burgas Municipality in order to fit its information needs. In turn, Burgas Municipality contracted a company with survey experience to manage the process, conduct the survey and analyse the results. The company used its experts, plus volunteers to perform the handing out, instructing, and collecting of questionnaires (in addition to providing help filling out questionnaires).

The company was due to carry out this task in September, but owing to the fact that some of the subjects (high school and university students) were hard to reach during this month, the work was done in October and November, and the processing of the questionnaires was completed in December.

Questionnaire Design

1. **Questions selection**

1. *Joint questionnaire: developed by IOS&LP*
2. *Country-specific questions: give some details why you have added questions (in most cases this was done for the purpose of the indicators' testing), and the source of the question formulation etc*

The added questions are locally specific, and take into consideration the local context – the largest group of immigrants in Burgas is Russian. Russians make up approximately 1% of the population of Burgas.

The questionnaire aims to examine the attitudes of those living in the Municipality of Burgas population aged 15-34 years regarding their intentions to immigrate to a foreign country, the respondents' level of education, their satisfaction with life as a whole and levels of disposable income. The questionnaire asks an additional question concerning the degree of prioritisation in the respondents' main areas of life - careers, education and family. Due to the rising number of people renting at national level from 2013 to 2016, a question about the size of monthly rent is also included, provided that the household does not live in its own dwelling. Questions regarding personal and household income are included at the end of questionnaire, as well as a guidance table with interval income groups in the event of the person encountering difficulties or not wanting to specify the exact amount.

Indicator: Aspirations of youth;

Question: To what extent will the areas, listed below, be a priority for you in the next 24 months?

Details: This question was added in order for the indicator to be quantified with information on a person's priorities in relation to three topics - work, family, and education. Important information on a person's life choices will be retrieved serving to enhance the analytical qualities of the survey on the topic of emigration/immigration behaviour.

Source of the question formulation: The formulation of the question was designed by NSI's experts.

Indicator: Average/Median cost of rent, in Euros and as a share of average/median household income

Question: What is the monthly rent you pay for the dwelling where you live?

Details: This question was added to provide information useful for the estimation of the local standard of living (basic cost of living).

Source of the question formulation: Partly derived from the national EU-SILC questionnaire.

2. Translation

1. *By whom was the translation in the local language made (e.g., a professional translator,…)?* Experts at NSI specialise in questionnaire development and communication with international organisations.
2. *How did you assure the **quality of the translation**?* The questionnaire was given to outside experts (not involved in questionnaire design) to assess the formulation and perception of the questions. Constructive advice was received and taken into account.

3. What is your study design? *Online/offline etc…*

Face-to-face interviews - paper assisted (PAPI).

Sampling and Data Collection Methodology

4. Who conducts – who surveyed

1. *Did you conduct the data collection yourself or did you assign an institute/company/… to do so? Clearly state the name of the company and add contact details*

A company was contracted to perform the small-scale survey – TSINO TIM-8 Ltd., a consulting company, manager Tatyana Rulko, mobile +359 887 227 849

2. *Were any training sessions performed with the interviewers/staff before the data collection stage?*

No, the company that was contracted has the required experience.

5. Pre-test

1. *Did you (firm) do a pre-test?* No
2. *What were the results? Did you introduce any changes to questionnaires or sampling?* N/A

6. Sample selection

1. *What is your reference unit (household, individual, etc)*-Individuals aged 15-34
2. *How did you choose your sample? Was there one or more stages?*

The sample of 200 interviewees was estimated as representative by the NSI team on the basis of the overall population of Burgas municipality.

If you used a randomisation process, give details (e.g., asking for the next birthday in a household)

Did you check for possible sample errors?

Who (if there was a specific target group, e.g., students) was addressed exactly – how many – when – which channel(s) did you choose (email – Facebook - phone – etc.)

About half of the interviewees are students in high schools and universities, while the other half are young people who have graduated and are either working of looking for work. The students were approached through institutional channels – school, college and university administration departments - that kindly agreed to cooperate for the purposes of this study. Some were more difficult to reach, especially those who neither work nor study. A network of youth workers was used; they volunteered to search out and invite young people to participate in the survey, and with regard to consent, put them in touch with the interviewers.

Part 2. Data collection and preparation

7. Absence/non response

How was the situation where households/individuals selected could not be reached, dealt with? (e.g., did the interviewers return later?) How was the situation of non-response handled?

Since the participants in the survey were approached individually and (mostly) pleased to cooperate, only a small portion - less than 10% - responded negatively and refused to fill in the questionnaire. The interviewers made sure that everybody who agreed to participate had filled out their questionnaire properly, and provided support where needed.

8. Quality assurance - How did you assure data quality?

Was there a review for consistency and stability?

Comment on possible stratification and weighting: How do you/can you assure representativeness? (E.g.,by constructing base sample weights – post stratification weights – approximate study design effects and margin of error calculations)

In terms of representativeness, the survey was carried out in the territory of the town of Burgas rather than in the villages of the municipality. However, the young people from neighbouring villages are also represented accordingly, since they study in the schools and colleges of the city and after graduation tend to stay and work in the town (unless they emigrate).

9. Data cleaning

How did you clean your data? N/A

*How did you handle non-response/incomplete data?*N/A

10 Coding

*How were your items recorded – with closed questions? (e.g., 0 for no, 1 for yes)*N/A

How did you code your open questions (if any)? N/A

Have you created a codebook? N/A

Part 3. Insights from the first descriptive analysis

Please tell us if you observed any interesting results from the very first and simple descriptive analysis of the SSS data. For example, you always thought everybody wanted to emigrate from your municipality, and now you discover that actually, only 5 percent of your sample does; in other words, take a look at your municipality from a different viewpoint - what is normal for you may be very interesting for others.

The biggest surprise of this survey is that a comparatively small number of young people – only 23 out of 198 interviewed – have lived abroad for more than a year. This finding contradicts the popular perception that there is a huge exodus of young people under way.

We assumed originally that most young people from Burgas have experience of emigration in Germany. It turns out, however, that the majority of long-term emigrants (more than one year abroad) have lived in the UK (England and Ireland), and most of them went there to work. Unsurprisingly, their reasons for returning to Bulgaria are mostly related to family and social circle (friends and relatives).

Surprisingly, 124 out of 198 respondents would prefer to stay and live in Burgas. Forty-four say they would prefer to live in another country and only eight would prefer to live in another municipality in Bulgaria. These findings correlate with a considerable portion of the respondents, who report satisfaction with their life (120 score their quality of life from 7 to 10 along a 0-10 scale). The quality of the social and economic environment in Burgas is also highly evaluated (150 score it from 5 to 10, and from among these 29 state they are entirely satisfied).

Alarmingly, the survey registers considerable anxiety concerning immigration and its potential threats (60 out of 198 entirely agree that the rise of the immigrant population in future is a threat for Bulgarian society). In this context the predominantly negative attitude towards Russian immigrants, registered by the survey, is hardly surprising.

Part 4. Other relevant information

Some specific issues have arisen from the initial analysis but these will be described in full in January.

4.3. Hungary: Szeged

Small-scale survey information request

Part 1. Preparation for the data collection

Questionnaire Design

1. **Questions selection**
    - Joint questionnaire: developed by IOS&LP
    - Country-specific questions
    - Questions on short term migration experiences
    - Questions on trust, satisfaction and life aspirations
2. **Translation**
    - The translation was made by the HCSO
    - The quality of translation was assured by a proofreader
3. **What is your study design?** Paper and Pencil Interview

Sampling and Data Collection Methodology

4. **Who conducts – who surveyed**

- Data collection was conducted by BOSSAWA Trade and Service Limited Liability Company (Relevant activities: research and experimental development in the social sciences and humanities; market research and public opinion polling. Founded in 07.12.2015

Contact details:

Name: BOSSAWA Kereskedelmi és Szolgáltató Korlátolt Felelősségű Társaság

Address: 6721 Szeged, Római körút 20. 2. em. 6.

Email: bossawa.kft@gmail.com (contact person: NAGY, Gábor Dániel, Dr.)

Training sessions were organized for the interviewers/staff on survey methodology and sampling.

5. **Pre-test**

- No pre-test was carried out

6. **Sample selection**

1. Reference unit: individual

2. Sampling based on random starting point random walk, using quota sampling (quota based on HCSO urban audit data, 2016). Exact quotas by sex, age groups

	Male	*Female*
15-19	*72*	*70*
20-24	*109*	*122*
25-34	*214*	*213*

During the research, a random walk random sampling method was used. This means that first an arbitrary point in the city was designated as the starting point. Once the starting point selection was made the interviewers went to the street and applied the right hand rule. That is, interviewers stayed on just one side of the street and turned right at each crossroads, and carried on until the circle was completed. Next, they chose a new starting point and continued the survey.

Part 2. Data collection and preparation

7. **Absence/non response**

In the event that a household could not be reached (i.e., nobody opened the door) the household was to be ignored. Where a household was contacted successfully, but the relevant family member/members was/were not at home, the interviewer had to return twice to the same household.

Information regarding non-response and the cause of non-response was not recorded during the survey. Only the addresses where successful interviews took place were registered (see picture below).

8. **Quality assurance**– *How did you assure data quality?*

Interviewers received training and detailed guidelines.

The interviewers were instructed to order the questionnaires using the numbers indicated in the register of the addresses, and to number the questionnaires accordingly to prevent confusion.

Data entry was done using the “four-eye” principle (one person registers the data in the database, and another compares the answers in the questionnaires to the data in the database).

Representativeness was achieved by the random starting point random walk method, using quota sampling.

9. **Data cleaning:**

Data entry personnel had the opportunity to red-flag data that seemed “wrong” to them.

In the data file, valid values (and associated labels) were defined, and the database was scrutinized to identify non-valid data or outliers.

Special values were used to indicate missing data (e.g., 0 or 88, depending on the acceptable range of valid values).

Actual values that were out of the range of valid values were also coded as missing data.

10. **Coding:**

Items were coded using predefined values associated with each item. The value labels are to be found in the dataset.

Values of the string variables (responses to open questions) were not coded.

11. Timeline (2018)

Preparation: 4 September – 16 September

Fieldwork: 17 September – 30 September

Data entry, creation of the dataset, provision of documentation: 1 October - 15 October

Part 3. Insights from the first descriptive analysis

A significant proportion of young people in Szeged (29.6%) are planning to move abroad and 37.4% of them are planning to do so in the next 12 months, with a decisive share (73.5%) already taking action. Those who plan to move say that things are going wrong in their city and for the country as a whole. Those respondents who plan to move abroad the following year typically feel less positive about how things are both in Szeged and in Hungary than those who do not plan to move in the next year.

4.4. Romania: Sfântu Gheorghe/Sepsiszentgyörgy

1. **Preparation for the survey: the scope and methods of the investigation**

- **Scope and importance.** The small-scale survey aimed to test the selected WP4 indicators, and to provide information on the selected variables at municipality level. A secondary aim was to collect exact information on multiple aspects of youth migration and related processes.

- **Research institutions involved.** The Romanian Institute for Research on National Minorities was in charge of the methodological coordination and supervision of the survey, while the fieldwork was conducted by TRANSOBJECTIVE S.R.L.; a firm specialised in opinion polls and social research with a lot of experience in qualitative and quantitative research in the multi-ethnic and multi-lingual environment. The fieldwork was coordinated by Barna Grigore, a sociologist.

- **Sampling.** A stratified multi-level random sampling method was used to achieve a representative sample of the total population aged 18-34 in municipality. In the first phase, a random sample of streets was elaborated, while in the second, households were selected according to a starting point and statistical step. Gender and age quotas were used to select the respondents among members of the already selected households.

- **Targeted population.** The investigation targeted the 18+ adult population; the population aged 18-34 was overrepresented. A total of 1100 questionnaires were filled out. Only those resident in Sfântu Gheorghe were interviewed - either foreigners or Romanian nationals.

- **Fieldwork. Face to face interviews were conducted at the domicile of the respondent.** The interviews were conducted in Hungarian and Romanian. All operators were fluent in both languages and respondents had the option of choosing whether to be questioned in Hungarian or Romanian.

2. **The maps of the field operators contained the following**

    - **A guide for field operators**
    - **"Quota tables"** containing age and gender quotas and other information that was to be followed by each field operator
    - **A list of addresses** showing where each interview was made had to be completed by each field operator. In addition, the age and gender of each respondent had to be noted along with any unsuccessful attempts at conducting interviews.

- **A certificate** that proved that the operator was the employee of the research firms conducting the fieldwork.
- **Work contract**
- **The questionnaire in Romanian and Hungarian**.

3. Sampling design

- The interviews were to be conducted only in the homes of the respondents. No questionnaires were completed in public spaces (streets, bars, pubs, etc.).
- Only one person per household was allowed to be interviewed.
- Leaving the questionnaire to be self-filled was not allowed.

- The information needed so that operators could select households and respondents was put in the quota tables as follows:
- The number of questionnaires that were expected to be filled out in a given street. (Streets were selected beforehand; if supplementary streets were needed they were given in a previously fixed order). Interviews conducted elsewhere were not accepted.
- The households were selected using a previously fixed starting point and a statistical step ensured that the interviews were conducted along a previously determined pathway.
- In blocks of flats, this statistical step was applied in apartments, with every block being investigated.
- In the event that nobody was at home the field operator had to return twice.
- As the number of completed questionnaires was not obtained, the coordinator provided supplementary streets in a previously fixed order.
- In the households, respondents were selected according to gender and age group quotas. While in the first selected households, any one of the adult household members was allowed to be interviewed, by the end, field operators had to find respondents fitting the missing quota categories.

- Besides the quota tables, field operators had to complete so-called lists of addresses. Based on this document, it was possible to control whether they had stuck to the previously fixed pathways (starting point and statistical step).
- They were required to note both completed questionnaires and unsuccessful attempts to complete them. In other words, they had to mark each contact along their pathway, regardless of outcome.
- In the event of an unsuccessful attempt, they had to note the cause of failure, for instance, a refusal to participate, an uninhabited flat, nobody fitting the (missing) quota categories, etc.
- In the case of completed interviews, the telephone number, age and sex of each respondent was requested. Nonetheless, anonymity for those who sought it was maintained, and only their addresses were noted in relation to the survey.

4. Other observations concerning the fieldwork

- Traditional pencil and paper-based questionnaires were used as none of the research firms active in the area were able to provide a multi-lingual network of operators.
- As a rule, the field operators were required to “keep their distance” so as not influence the respondents.

5. The timing of the survey

Timing of the local survey consists of the following periods:

1. Survey preparation period, completing and testing the questionnaires;15 August 15 to 15 September, 2018;
2. Organization period and instructing field operators; 15 September to 15 October, 2018;
3. Fieldwork,15 October – 20 November;
4. Evaluation and correction period - weight design;20 November to 15 December, 2018

4.5. Slovenia: Maribor

Territorial definition of the location

NUTS0: Slovenia

NUTS3: Podravje

LAU2: Maribor

The survey was conducted within project YOUMIG

Local partner: Maribor Development Agency

External expert: PAMETEN, Center znanja, vizij in uspešnosti

1. **Definition of the sample**

The sample for the Municipality of Maribor (MOM) was defined in accordance with the Small Scale Survey (SSS) methodology proposed within the YOUMIG project. To maintain a representative sample, data from the Statistical Office is used for the population aged 15 to 34 years. The sample was set at 500 persons, which represents almost 2% (1.99%) of the total city population aged 15 to 34 years.

Table 1: Population of the Municipality of Maribor by sex and age (data: 1 June 2018).

Population by: sex, municipality, age – data 1 June 2018																						
		2018H1																				
		AGE: 15-34 TOTAL	**15**	**16**	**17**	**18**	**19**	**20**	**21**	**22**	**23**	**24**	**25**	**26**	**27**	**28**	**29**	**30**	**31**	**32**	**33**	**34**
Total	MOM	25017	801	805	809	763	1409	1505	1499	1366	1373	1260	1167	1168	1196	1272	1326	1406	1385	1501	1508	1498
M	MOM	12945	411	403	432	387	730	736	764	669	678	636	613	597	611	657	676	806	763	765	810	801
F	MOM	12072	390	402	377	376	679	769	735	697	695	624	554	571	585	615	650	600	622	736	698	697

Source: Statistical Office of Slovenia

However, as the target group for sampling would include minors (under the age of 18); a decision among Slovenian project partners (Maribor Development Agency and the Institute for Economic Research) was made to exclude the population under the age of 18.

The sample was therefore recalculated and set as follows:

Table 2: Proposed sample for SSS

Age group	**Male**	**% of population**	**Female**	**% of population**
18-21	58	50.56	57	49.44
22-25	57	50.25	57	49.75
26-29	56	51.21	54	48.79
30-34	87	54.06	74	45.94
Total	**259**	**51.8**	**241**	**48.2**

Source: Maribor Development Agency (own calculation)

2. Conducting the survey

The SSS was conducted within the territorial location of the Municipality of Maribor. Initially the SSS was conducted by telephone survey, however, not a large enough sample was reached, therefore, a second wave was initiated, where the survey was conducted online and in person. Upon conclusion, the 500 responses were reached with some difficulties, which is also evident in the deviation (see Table 3 and 4) from the original sample.

Table 3: SSS respondents (by sex)

Male	**Female**	**Not valid**	**TOTAL**
230 (46%)	269 (53.8%)	1 (0.2%)	500

Source: Izsledki raziskave YOUMIG (Pameten)

Table 4: SSS respondents (by age groups)

Age group	**Number of respondents**	**%**
18-21	115	23
22-25	114	22,8
26-29	110	22
30-34	160	32
n.a.	1	0.2
TOTAL	500	100

Source: Izsledki raziskave YOUMIG (Pameten)

The basic unit of the SSS is a person belonging to the target age group, living in Maribor at the time the survey was conducted:

1. A young person with a permanent residence in Maribor
2. A young person with a temporary residence[1] in Maribor

The timing of the local survey consists of following periods:

A) Maribor Development Agency (PP5) hired external expert PAMETEN, Center znanja, vizij in uspešnosti to conduct the Small Scale Survey. Pameten hired a subcontractor STATISTIKUM, statistične in marketinške raziskave ter izobraževanja to conduct the telephone survey.

B) The Institute for Economic Research (PP4) translated the survey questions by 6August 2018.

C) Between 6 August and 31 August 2018 the online survey was set-up and tested by Pameten and the database for the telephone survey was set-up by Statistikum, who also trained their staff to conduct the online survey.

D) From 3 September, until 26 September the first wave of the survey was conducted both online and by telephone.

E) From 1 October, until 31 October the second wave of the survey was carried out. Between 1 October and 12 October the paper version of the survey was also prepared. In addition to the online and telephone survey, the external expert also conducted a live survey starting on 15 October.

F) In both waves, Statistikum made 3000 telephone contacts, which resulted in 355 collected responses. In addition, the online surveys through the 1ka online system were conducted in both waves by Pameten, with 500 emails sent out, collecting 75 responses.

Additionally, in the second wave only, the face-to-face survey was conducted by Pameten, with 71 people fitting the target group, and 70 valid responses collected.

In total there were 501 surveys (one invalid) carried out by the end of the second wave, therefore no third way was initiated.

3. Responsible companies:

Institute for Economic Research – Slovenian academic partner within the YOUMIG project;

Maribor Development Agency – Slovenian local partner within the YOUMIG project;

PAMETEN, Center znanja, vizij in uspešnosti – external expert conducting the SSS;

STATISTIKUM – subcontractor for conducting the telephone survey.

4.6. Slovakia: Bratislava - Rača

1. Preparation for the data collection - basic information

The small-scale survey in Bratislava-Rača was based on a random sample of the dwellings from all three local parts: Krasňany, Rača and Východné. The sample was proportional to the population number in each local part,covering 150 dwellings and representing 1.7 % of all permanently occupied dwellings.

Questionnaire Design

The questionnaire included three country-specific questions:

15. If you are a student, please fill in the name of the country in which the university resides _____

21. Did you apply for social housing in the previous five years in Bratislava-Rača?
    1. yes
    2. no

22. If Yes: Has your request has been considered:
    1. positively
    2. negatively

The aim of these questions was to prepare a data platform for testing indicators:

Indicator New8: Unmet demand by young people (locals and immigrants) for social housing

Indicator 53: Student outbound mobility ratio at tertiary level, by sex

Translation

We did the translation of the individual questions into the local language ourselves, in combination with subsequent proofreading by a professional translator. The quality of the translation was ensured by multiple and independent testing of the meaning of questions by different people (of different ages, genders, education levels and professions).

The questionnaire design

An online questionnaire was used to collect data. In rare cases, an offline paper questionnaire for the data collection (especially for the elderly with limited access to the internet) was also utilised. The questionnaire is available through the Google docs. platform:

https://docs.google.com/forms/d/e/1FAIpQLSe-c2-wXWDwvURwvt50p5wFouFRJcoIa-K0oBP1ynZTo2XkjA/formResponse

Sampling and Data Collection Methodology

Data collection was provided by INFOSTAT - the Centre for Social Research (CSR), with support from the Department of Human Geography and Demography - Faculty of Natural Sciences (Department), Comenius University and city quarter Bratislava - Rača.

The Centre for Social Research at INFOSTAT is a full-service survey team, which performs quantitative and qualitative surveys for state administration, public, private and academic institutions, the press and other organizations. The reputation of CSR surveys is built on a long tradition, well-trained interviewers and

especially on public trust in our services. The CSR is able to carry out complex and partial surveys in a turnkey manner from survey design, through field realization to data evaluation and interpretation of results.
Before the data collection stage, there were two training sessions performed with staff. The aim of these was to understand the methodology of household selection, survey objectives, data collection, as much as to test the meaningfulness of the questionnaire and its questions. In addition, testing was performed prior to sampling. In practice, the system of collecting and understanding the questionnaire and its questions was confirmed. The results highlighted the need to simplify some choices of answers in the online questionnaire as well as to emphasise the transition between successive questions.

Sample selection

The basic unit of this small-scale survey is the private household and its current members who live in Bratislava-Rača at the time of data collection. A private household consists of persons who live together and jointly manage the household, including the joint provision of living necessities. A common management feature is the joint reimbursement of basic household expenses (food, housing, electricity, gas, etc.).
Current members of a household include:
a) permanently living- present in the household,
b) permanently living - short-term absence due to employment, education, holidays, etc.,
c) permanently resident- long-term absence due to employment, long-term
absent children due to education (study abroad),
d) permanently resident - long-term absence due to stay in a hospital, school, boarding house, etc., and his/her current or expected absence is more than three months,
e) a tenant, a foreign national, where his actual or anticipated residence in the household is six months or more,
f) a guest - visitor when his / her actual or anticipated stay in the household is six months or more.
The subject of the small-scale survey is each person aged 15 and over living in the household of the selected dwelling without regards to permanent, temporary or unregistered stay, institutionally population excepted (i.e., prisoners, persons under psychiatric care, etc.).
The small-scale survey in Bratislava-Rača is based on a random sample of the dwellings from all three local parts: Krasňany, Rača and Východné. The sample is proportional to the number of population in each local part and covers 150 dwellings, which represent 1.7 % of all permanently occupied dwellings. The sample frame is based on the Population and Housing Census conducted in 2011 which has been supplemented with information on the increase and decrease (newly built - loss of housing stocks) of permanently occupied houses in Bratislava - Rača by 2018.
The selection of the sample of households for data collection required several follow-up steps. For each part of the municipality, the number of households to be surveyed was selected. The main aim was to create a proportional selection based on the updated selection support made up of residential households as of 31 December 2017. In the next step, streets where data collection was implemented, were selected randomly in each part of the municipality. On the ground, a rule of entering each fifth house / entrance (in the case of multiple-entrance buildings) in selected streets was observed. In the case of multi-dwelling buildings, the condition was to choose a maximum of two apartments.

Part 2. Data collection and preparation

In cases where no person could be reached in the selected household and there was no other way to contact him/her (e.g., by email), a substitute household was selected on the same street according to the selected criterion (see above).

Data from the small-scale survey for all persons who were willing to co-operate were weighted by demographic data as of the 1 January 2018.Extrapolation to the population is done at the level of individuals. Each person in the sample represents several persons in the population of Bratislava-Rača. The population and the sample are the subject of post-stratification, which is performed by sex and 5-year age groups.

Data cleaning provides three functions:

1) checking and eventually discarding data that does not qualify for inclusion (e.g., age, place of residence, etc.)
2) converting individual variables into the same data types
3) the recoding of some variables into unambiguous codes and the creation of a code table - codebook.

All records were retained in the database - the number of responded / unanswered questions is not a decisive criterion for deleting them from the database.

The timing of the local survey consists of the following periods:

A) Survey preparation period, completion and testing of the questionnaire online tool, 1 August to 31 August 2018;

B) Organization period and instructing of surveyors; pilot sample survey, 1 September to 30 September 2018;

C) Collection period with direct monitoring of the progress and possible ad-hoc action fixing sample biases,1 September to 31 October 2018; second wave,1 November to 15 November 2018;

D) Evaluation and correction period - weight design, 15 November to 10 December 2018

4.7. Serbia: Kanjiža

Part 1. Preparation for the data collection

Questionnaire Design

1. **Questions selection**

   A. Joint questionnaire: developed by IOS&LP; we will fill in this part.
   B. Country-specific questions: give some details why you have added the questions (in most cases this was done for the purpose of testing the indicators), source of the question formulation, etc.

Country-specific questions should provide data for selected indicators testing/collecting. Selected indicators are mainly unavailable in the official statistical system (not defined in official statistical programmes and plans) and are collected via ad-hoc surveys; data are collected within the official statistical system, but they are not representative at the local level because of the small sample size.

Indicator 6 "Second-generation migrants" observes the target population within its demographic and economic characteristics to create policies for better integration into society, the labour market and the education system.

Indicator 28 "Transnational families" is a contemporary phenomenon. Mostly, migration and integration policies are designed for individual migrants, but do not reflect the family dimension of migration. However, leaving one's family in order to work abroad is mainly seen as a temporary solution. The best interests of the family lie in being reunited in the host country. To avoid a partial understanding of the migratory process as much as to avoid unfocused policymaking, this indicator could provide the possibility of an overview on potential migrants at the local level.

Indicators 152, 156, and 166 show, indirectly, the current economic situation in the country and represent the main push factors that young people use to justify their reasons for leaving the country - unemployment and poor living standards. These data (in addition to the current state and needs of the labour market) show the need for improved educational policies for youth on the part of authorised institutions and their engagement in retraining programmes in relation to the in-demand areas of the job market. Definitions for selected indicators, applied in the SSS, are according to international standards proposed by Eurostat, OECD and other reference documentation proposed by the WP4 leader and YOUMIG Leading Partner.

Business Payroll Survey (BPS) was not part of the initial field data collection on persons. Data on BPS were collected when SSS on persons was already finished. The BPS results were delivered on 15 October 2018 and the response to this part of the SSS was smaller than expected/required. For BPS, target units consisted of all companies in Kanjiža that have at least one employee, according to which they issued one payroll deduction remittance during the reference month. It was required that at least 50 entrepreneurs complete the questionnaire but a large part of the contacted entrepreneurs was not willing to cooperate (22 completed questionnaires).

Bearing in mind the low response rate in the BPS, it is evident that the data obtained in the survey cannot serve for further analysis and for the development of the indicator 156 Job vacancy rate.

2.Translation

A. By whom was translation in the local language was executed (e.g., a professional translator,…)?

A translator from SORS did the translation into Serbian and a court translator for the Hungarian language did the translation into the Hungarian language.

B. How did you assure the **quality of the translation**?

Professional translators did both translations (into Serbian and the Hungarian language) after which the translation was checked by SORS' thematic experts (Serbian language) and members of the YOUMIG Kanjiža team (Hungarian language).Some questions were slightly reformulated.

3. What is your study design? Online/offline, etc.

The IT team (IT Company PONT system from Subotica was engaged; IT expert Mr Nandor Stanko) developed an on-line survey/website showing the survey and the possibility of completing the questionnaire in the Serbian and Hungarian language.

Sampling and Data Collection Methodology

4. Who conducts – who surveyed

A. Did you do the data collection yourself or did you assign a(n) institute/company/…

B. Clearly state the name of the company and add come contact details

Interviewers were engaged (young intellectuals from the municipality of Kanjiža who had been specially trained for the data collection).
17 interviewers were provided by the Municipality of Kanjiža- through the Office for Youth of the Municipality of Kanjiža.

C. Were any training sessions held with the interviewers/staff before the data collection stage

A one-day training session was held in Kanjiža (18 September 2018). The training consisted of two parts relevant for the quality assurance of the data collecting - appropriate behaviour during the interviewing (held by Erik Palusek) and the specificity of YOUMIG research, questionnaires, samples, etc. (held by Dr Agnes Slavic).

5. Pre-test

A. Did you (firm) do a pre-test?

Unfortunately, due to very limited time, the pre-test was not performed.

B. What were the results? Did you introduce any changes to the questionnaires or sampling?

6. Sample selection

A. What is your reference unit (household, individual, etc)

Individuals – young people aged 18-34, who reside in the municipality of Kanjiža.

B. How did you choose your sample? Was there one or more stages?

If you used a randomisation process, give details (e.g., asking for the next birthday in a household)
Did you check for possible sample errors?

Who (if you have a specific target group, e.g., students) was addressed exactly – how many – when – which channel(s) did you choose (mail – Facebook - phone - etc)

Due to the very short time for data collection (20-28 September), the quota sample was used. Interviewers received the place (settlement) where they should conduct the survey, the required number of completed questionnaires (according to the number of inhabitants) and the sample requirements (according to the structure of the population of the municipality of Kanjiža):

- By nationality: Hungarians (H) about 90%, Serbs (Sr) about 10%
- By sex: men (M) women (W) about 50% -50%
- By age: 18-21 years, 22-25, 26-29, 30-34 years – about the same share (25 - 25-25-25%)
- By economic activity:
  Students (students, students attending college or university) - 25%
  Employed (registered employment) - 25%
  Unemployed (looking for a job) - 25%
  Other (entrepreneurs, farmers, those who work but are not registered, etc.) -25%
- According to migration:
  Born in the municipality of Kanjiža, live there, did not live abroad for more than a year – about 70-80%.
  Foreigners – born abroad, but moved to the municipality of Kanjiža and now live there – about 0-10%.

In most cases, the interviewers had their laptops or phones and conducted the face-to-face interviews. In cases where they could meet the respondents in person, then the interviewer and respondent opened an online questionnaire and together went through the survey question-by-question (via the phone, Skype, etc.) with the respondent himself clicking on the answers.

Part 2. Data collection and preparation

7. Absence/non response

How was the situation where households/individuals selected could not be reached, dealt with? (e.g., did the interviewers return later?) How was the situation of non-response handled?

In a situation where respondents could not be reached, interviewers looked for other respondents.

8. Quality assurance– how did you assure data quality?

Was there a review for consistency and stability?
Comment on possible stratification and weighting: How do you/can you assure representativeness? (e.g., by construction of base sample weights – post stratification weights – approximate study design effects and margin of error calculations).

Local thematic experts were in constant contact with interviewers and always available for answering methodological or any other relevant questions. The thematic experts contacted every interviewer at least three times by phone (at the beginning, in the middle and at the end of the data collection period), kept track of the number and structure of the completed questionnaires by the place of residence of respondents, and if necessary sent interviewers to places where the response rate was less than required.
Weights for individuals and households were calculated to adjust sample values with the target population (so that the proportion of each cell in the sample matches the corresponding proportion in the target population). Simply stated, the quota sample was used and selection probabilities for individuals are unknown.

The weights for persons were obtained through adjustment to the population values according to the demographic estimations for 2017, based on the vital statistics and internal migration for the municipality Kanjiža, considering single age and sex.
The weights for households were calculated according to the distribution of households with individuals aged 18-34 years obtained in the 2011 census, by the number of persons in a household (6 classes).

9. Data cleaning

How did you clean your data?

Entire records of persons older or younger than the target population (18-34), as well as those belonging to the target population (but who left many questions unanswered) were deleted from the database (excluded from further analysis). The minimum effective sample was set at 500 respondents aged 18-34. After the data cleaning, from 615 collected questionnaires, 36 were deleted and 579 processed.

How did you handle non-response/incomplete data?

The record was deleted if the person left a large number of questions unanswered and data imputation was not possible. Where possible, for incomplete or incorrect data, corrections were made by deductive or mean imputation.

10. Coding

How were your items recorded – closed questions? (e.g., 0 for no, 1 for yes)
How did you code your open questions (if any)?
Have you created a codebook?

There was no automatic coding; all answers were entered into the database. After the field data collection and creation of the database, data were "office-coded" and a codebook was created. Open questions were partially coded – some questions/answers are more relevant for qualitative than quantitative analysis and some answers in the category "other" are essential for processing the necessary indicators (for example, to determine whether a person is economically active or inactive).

11. Timeline

Briefly outline the key dates of the data collection.

1. Questionnaire design and translation into Serbian and Hungarian finalised on 15 September
2. Training of the interviewers -18 September
3. Developing and testing of the on-line questionnaire finalised on 19 October
4. Data collection period 20-28 October
5. Business Payroll Survey data collection finalised on 15 October
6. Coding, data cleaning and weight design of SSS finalised on 13 December

ANNEX: Joint Questionnaire: block of common questions for the local small-scale surveys

Note: [country] and [municipality] refer to the country and municipality where the survey is conducted

1. Sex:

Male
Female

2.Year of birth: YYYY

3.Citizenship:

[Country]
[Country] and foreign, namely: _____
Not [country], namely: _____
Stateless (a person who is not considered a citizen of any state)

4. Country of birth:

[Country] **[→ Go to BLOCK A]**
Other: **[→ Go to BLOCK B]**

BLOCK A: BORN IN [COUNTRY]

A/5. Municipality of birth: _____

A/5.a.*If your municipality of birth is other than [municipality],***please indicate, since which year you have lived continuously in [municipality]:**YYYY

A/6. Have you ever lived outside [country] continuously for at least 1 year?

No **[→ Go to question 9]**
Yes

If yes, please answer concerning the last period/experience abroad when you lived outside [country] for at least 1 year:
A/6.a. In which country: ____
A/6.b. When did you leave [country]? YYYY
A/6.c. When did you return to [country]? YYYY

Please state your main activities abroad during this period and rank them in accordance with their relevance:
A/6.d. Work →*please indicate what your main job, occupation was:* _____
A/6.e. Study
A/6.f. Family reasons
A/6.g. Other (Internship, voluntary activities, etc.): _____

A/6.h. *Please state whether the experience and skills you obtained during this period abroad could be capitalised on in [country].*

A/7.Please indicate how important the following reasons were in your decision to return to [country].
*Please answer concerning the last period/experience abroad when you lived outside [country] for at least 1 year***.**

		Not at all important	Not important	Neutral	Important	Very important	*N/A*
A/7.a.	Termination of work contract/study programme						
A/7.b.	Economic difficulties in foreign country						
A/7.c	Better job/educational opportunities in [country]						
A/7.d.	Absence of a social network/friends in foreign country						
A/7.e.	Family reasons						
A/7.f.	Inadequate housing conditions (difficult to find, high price) in foreign country						
A/7.g.	Hostile environment in foreign country						
A/7.h	Never wanted to stay longer						
A/7.i.	Other reason (please specify): _____						

A/8. Did you experience any administrative difficulties when you returned to [country]? In which areas?
Please choose a maximum of three options.

Receiving or renewing official personal documents (ID card, passport, driving licence),
Registering change of residence, change of marital status, birth of a child, registration of property or vehicle
Obtaining a tax identification number, preparing a tax declaration, getting a tax refund
Obtaining health insurance, access to any kind of healthcare
Receiving a work permit, support in finding a job or setting up a business
Receiving financial social assistance, family allowances, social housing
Recognition of my education certificate issued in another country
Enrolling my children in an educational institution (kindergarten, primary, secondary)
Enrolling myself in an educational institution (tertiary, language or other courses etc)
Other (please specify) _____

A/8.a. *Please describe the difficulties you faced and recommend ways to improve administrative procedures:*

_____

[Go to question 9]

_____

BLOCK B: Foreign BORN

B/5.a.Please indicate, since which year you have lived in [country]: YYYY
B/5.b.Please indicate, since which year you have lived in [municipality]: YYYY

B/6. Have you ever left [country] to live in another country for at least 1 year?
No **[→ Go to question B/9]**
Yes

If yes, please answer regarding the last period/experience abroad when you lived outside [country] for at least 1 year:
B/6.a. In which country: ____
B/6.b. When did you leave [country]? YYYY
B/6.c. When did you return to [country]? YYYY

Please state your main activities abroad during this period and rank them according to their relevance:
B/6.d. Work →*please indicate what your main job, occupation was:* _____
B/6.e. Study
B/6.f. Family reasons
B/6.g. Other (Internship, voluntary activities, etc.): ____
B/6.h. *Please state whether the experience and the skills you obtained during this period abroad could be capitalised on in [country].*

_____

B/7.Please indicate how important the following reasons were in your decision to return to [country].
*Please answer concerning the last period/experience abroad when you lived outside [country] for at least 1 year***.**

		Not at all important	Not important	Neutral	Important	Very important	*N/A*
B/7.a.	Termination of work contract/study program						
B/7.b.	Economic difficulties in foreign country						
B/7.c.	Better job/educational opportunities in [country]						
B/7.d.	Absence of a social network/friends in foreign country						
B/7.e.	Family reasons						
B/7.f.	Inadequate housing conditions (difficult to find, high price) in foreign country						
B/7.g.	Hostile environment in foreign country						
B/7.h.	Never wanted to stay longer						
B/7.i.	Other reason (please specify): _____						

B/8. Did you experience any administrative difficulties when you first immigrated or returned to [country]?
Please choose a maximum of three options.

Receiving or renewing official personal documents (ID card, passport, driving licence),
Registering change of residence, change of marital status, birth of a child, registration of property or vehicle
Obtaining a tax identification number, preparing a tax declaration, getting a tax refund
Obtaining health insurance, access to any kind of healthcare
Receiving a work permit, support in finding a job or setting up a business
Receiving financial social assistance, family allowances, social housing
Recognition of my education certificate issued in another country
Enrolling my children in an educational institution (kindergarten, primary, secondary)
Enrolling myself in an educational institution (tertiary, language or other courses etc)
Other (please specify) _____

B/8.a. *Please describe the difficulties you faced and recommend ways to improve administrative procedures:*

_____

[Go to question 9]

---

9. Now that you live in [municipality/country],would you like to move to another country, or to another municipality in this country, given the opportunity?

No, I prefer to continue living in this municipality **[→ Go to question 10]**
Yes, I would like to move to another municipality within this country **[→ Go to question 10]**
Yes, I would like to move to another country

9.a.If you would like to move to another country, please name a maximum of three countries where you would like to move:

*1.*_____
*2.*_____
*3.*_____

9.b. *(ASKED ONLY OF THOSE WHO WOULD LIKE TO MOVE TO ANOTHER COUNTRY)***Are you planning to move to another country in the next 12 months?**

No, I am not planning to move to another country in the next 12 months [→ Go to question 10]
Yes, I am planning to move to another country in the next 12 months

9.c. *(ASKED ONLY OF THOSE WHO ARE PLANNING TO MOVE TO ANOTHER COUNTRY IN THE NEXT 12 MONTHS)***Have you made any preparations for this move?**

No, I have not made any preparations for this move **[→ Go to question 10]**
Yes, I have made some preparations for this move

9.d. *(ASKED ONLY OF THOSE WHO ARE PLANNING TO MOVE TO ANOTHER COUNTRY IN THE NEXT 12 MONTHS)***What kind of preparation have you made so far?**

Looking at websites for information on the destination country
Looking for contact persons in the destination country
Getting in contact with friends/relatives who live in the destination country
Job searching in the destination country
Contacting labour agencies in the destination country
Searching for accommodation in the destination country
Other: _____

9.e.*(ASKED ONLY OF THOSE WHO HAVE MADE SOME PREPARATIONS TO MOVE TO ANOTHER COUNTRY IN THE NEXT 12 MONTHS)***How much time do you plan to spend abroad?**

Less than a year
1 year
2 years
More than 2 years, but not more than 5 years
More than 5 years, but not permanently
Maybe permanently
Do not know
Prefer not to say

9.e. *(ASKED ONLY OF THOSE WHO HAVE MADE SOME PREPARATION TO MOVE TO ANOTHER COUNTRY IN THE NEXT 12 MONTHS)* **What main activity do you plan to do abroad?** *Please, select all those that are relevant and rank them in accordance with their importance.*

Work
Study, internship
Language course
Volunteering
Other: _____
Do not know
Prefer not to say

10. *Next, I would like to ask you some questions concerning different aspects of your life, and your feelings about these aspects. There are no right or wrong answers. For each of the questions I would like you to give an answer on a scale of 0 to 10, where 0 is "not at all" and 10 is "completely".*

Not at all.....Completely

		0	*1*	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*	*N/A*
10.a.	Overall, how satisfied are you with your life nowadays?												
10.b.	Overall, how satisfied are you with the financial situation of your household?												
10.c.	Overall, how satisfied are you with your accommodation?												
10.d.	Overall, how satisfied are you with your personal relationships?												

11. You mentioned that you live in [country/municipality]. *For each of the following questions I would like you to give an answer on a scale of 0 to 10, where 0 is "not at all" and 10 is "completely".*

		0	*1*	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*	*N/A*
11.a.	Overall, how satisfied are you with the quality of your living environment?												
11.b.	Would you say that life in [municipality] has got better in the last couple of years?												
11.c.	Would you say that things are going in a bad direction in [municipality]?												
11.d.	Would you say that things are going in a good direction in [country?]												

12. Are you currently...? *If you belong to more than one group (e.g., you are both a student and working), please mark all of them.*

Employed
Unemployed and currently looking for a job
Unemployed and currently not looking for a job
Self-employed
Student
On maternity leave
Other: _____

13. If you work (worked), which of the following categories best describes the kind of work you do (did)? *There is no right or wrong answer. Just choose the category you think fits best.*

Professional and technical occupations such as: doctor – teacher – engineer – artist – accountant
Higher administrator occupations such as: banker – executive in big business – high government official – union official
Clerical occupations such as: secretary – clerk – office manager – book keeper
Sales occupations such as: sales manager – shop owner – shop assistant – insurance agent
Service occupations such as: restaurant owner – police officer – waiter – caretaker – barber– armed forces
Skilled worker such as: foreman – motor mechanic – printer – tool and die maker – electrician
Semi-skilled worker such as: bricklayer – bus driver – cannery worker – carpenter – sheet metal worker – baker
Unskilled worker such as: labourer – porter – unskilled factory worker
Farm worker such as: farmer – farm labourer– tractor driver– fisherman
Do not know

14. If you are currently studying, what is the level of the school you are enrolled in now?

ISCED 0: Early childhood education ('less than primary' for educational attainment)
ISCED 1: Primary education
ISCED 2: Lower secondary education

ISCED 3: Upper secondary education
ISCED 4: Post-secondary non-tertiary education

ISCED 5: Short-cycle tertiary education
ISCED 6: Bachelor's or equivalent level
ISCED 7: Master's or equivalent level
ISCED 8: Doctorate or equivalent level

15. What is your level of schooling or the highest degree you have completed?

ISCED 0: Early childhood education ('less than primary' for educational attainment)
ISCED 1: Primary education
ISCED 2: Lower secondary education

ISCED 3: Upper secondary education
ISCED 4: Post-secondary non-tertiary education

ISCED 5: Short-cycle tertiary education
ISCED 6: Bachelor's or equivalent level
ISCED 7: Master's or equivalent level
ISCED 8: Doctorate or equivalent level

16. What is the field of study in which you obtained your highest degree?

Generic programmes and qualifications
Education
Arts and humanities
Social sciences, journalism and information
Business, administration, and law
Natural sciences, mathematics and statistics
Information and communication technologies (ICTs)
Engineering, manufacturing and construction
Agriculture, forestry, fisheries and veterinary
Health and welfare
Services

17.a. Please look at the following statements and indicate where you would place your views on this scale, where **1** means *strongly agree* and **10** means *strongly disagree***?**

A	Immigrants take jobs away from natives in the country	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**
B	A country's cultural life is undermined by immigrants	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**
C	Immigrants make crime problems worse	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**
D	Immigrants are a strain on a country's welfare system	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**
E	In the future the proportion of immigrants will become a threat to society	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**
F	For the greater good of society it is better for immigrants to maintain their distinct customs and traditions	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**

17.b. Please look at the following statements concerning the most populous immigrant group in [municipality]{Dear partners, please write here the most populous immigrant group (nationality) in your municipality → see YOUMIG Data Exchange Exercise} and indicate where you would place your views on this scale, where **1** means *strongly agreed* and **10** means *strongly disagree***?**

A	[Specific immigrant group] take jobs away from natives in the country	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**
B	A country's cultural life is undermined by [Specific immigrant group]	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**
C	[Specific immigrant group] make crime problems worse	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**
D	[Specific immigrant group] are a strain on a country's welfare system	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**
E	In the future the proportion of [Specific immigrant group] will become a threat to society	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**
F	For the greater good of society it is better for [Specific immigrant group] to maintain their distinct customs and traditions	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**

18. Including yourself, how many people – including children – live as regular members of your household?
_____

18.a. Who, apart from you, is living in this household? *Please select all those that are relevant.*

Husband or wife (legally married or in a legally registered civil union)	Yes	No
Partner (cohabiting, not legally registered)	Yes	No
(your) children	Yes	No
(your) parents	Yes	No
(your) grandparents	Yes	No
Other relatives (brothers, sisters, etc)	Yes	No
Other non-relatives	Yes	No

20. In which of these ways do you occupy the accommodation in which you live?

1. Own it, no mortgage (or mortgage already paid)
2. Own it, still paying mortgage
3. Rent the entire property
4. Rent part of the property
5. Live here rent free (in a relative's/friend's property; squatting)
6. Social housing
7. Other: _____

21.a. Thinking of all possible sources of income, what is your <u>personal income</u> after deductions for income tax, National Insurance, etc, that you received in the month prior to the interview?

Dear partners, please write here the categories that are meaningful in your country.

21.b. Thinking of all possible sources of income, what is your <u>household income</u> after deductions for income tax, National Insurance, etc, that you received in the month prior to the interview?

Dear partners, please write here the categories that are meaningful in your country.