Monitoring and Mapping Migration in the EU with Existing Data

WORKING PAPER

Authors: Veronika Fajth
Katrin Marchand
Melissa Siegel

Published October 2019
Monitoring and mapping migration in the EU with existing data

Working Paper

Authors: Veronika Fajth, Katrin Marchand, Melissa Siegel

Submitted: August 2019

Paper prepared as part of the REMINDER project

www.reminder-project.eu

Correspondence address:

Dr. Katrin Marchand
Maastricht Graduate School of Governance, UNU-MERIT | Maastricht University
Boschstraat 24, 6211 AX Maastricht, The Netherlands
k.marchand@maastrichtuniversity.nl

Acknowledgements: The authors would like to thank Vittorio Bruni, Tamta Gelashvili, and Sarah Röder for their assistance in the preparation of this report. We extend our gratitude to all the experts who took time to speak with us and shared their knowledge, significantly improving the quality of this report. We also thank Roland Hosner for his helpful comments and suggestions throughout this project. In addition, we are thankful for those that took the time to review prior versions of this report.

This project has received funding from the European Union’s Horizon 2020 research and innovation programme under grant agreement No 727072.
Abstract

The aim of this paper is to provide an overview and discussion of the main databases available to aid understanding of migration within the European Union. Following some key questions of interest, the paper maps existing data sources and evaluates them for their usefulness and quality in supporting intra-EU migration research. In addition to a desk review of sources, European migration data experts were interviewed for further insights. Eurostat’s database on population statistics, the Labour Force Survey (both core and 2008/2014 ad-hoc modules), the migration databases of UN DESA and OECD, as well as the EIMSS survey and the special wave 72.5 of the Eurobarometer, are among the most useful sources identified at the regional level. Despite a general trend of improving European migration statistics, some challenges and limitations regarding the measurement of intra-EU migration persist. Firstly, missing data on migrants’ previous country of residence, and/or lack of cross-tabulation opportunities, makes it impossible to assess those movements that truly take place within the external borders of the EU, and/or the share of EU versus third-country nationals within those flows. Second, more information on migration motivations and migration over the lifetime would be key to gaining a comprehensive understanding of migration patterns and tendencies within Europe. This connects to the third and final shortcoming of currently available statistics: the lack of data on circular and short-term migration, including cross-country commuting. Recommendations for bridging availability and quality gaps in the current state of European migration data are offered throughout the paper.
# Table of Contents

Abstract .................................................................................................................................................. 1  
List of Abbreviations .................................................................................................................................. 3  
Introduction ............................................................................................................................................... 4  
I. Mapping strategy ..................................................................................................................................... 5  
II. The institutional framework and evolution of European migration data collection ...................... 9  
III. Main sources of data on intra-European migration ........................................................................... 14  
   A. Types of data ....................................................................................................................................... 14  
      i. Types of administrative data ............................................................................................................. 16  
      ii. Surveys ........................................................................................................................................... 18  
   B. Most suitable datasets for researching intra-European migration .................................................. 20  
      i. Databases based on administrative information ............................................................................... 20  
      ii. Survey-based data ............................................................................................................................ 29  
IV. Available statistics and remaining challenges by thematic areas of intra-EU migration ............... 37  
   A. Migration flows within the European Union ....................................................................................... 37  
   B. Stocks of intra-EU migrants ................................................................................................................ 43  
   C. Statistics on selected aspects of intra-EU migration .......................................................................... 45  
      i. Reasons driving migration within the EU ....................................................................................... 45  
      ii. Irregular migration ........................................................................................................................... 50  
      iii. Monitoring lifetime/multiple migrations ...................................................................................... 52  
      iv. Short-term migration, circular migration, and cross-border commuting .................................... 55  
Conclusion and recommendations ........................................................................................................... 60  
   A. Summary: key gaps in intra-EU migration statistics .......................................................................... 61  
   B. Recommendations for policy-makers and lead statisticians .............................................................. 63  
   C. Recommendations for future research ............................................................................................... 65  
References ................................................................................................................................................ 67  
Annex ....................................................................................................................................................... 70  
Annex I – List of interviewed experts ..................................................................................................... 70  
Annex II – General list of questions for expert interviews (simplified) .................................................. 71
<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AHM</td>
<td>Ad-hoc Modules (of the LFS)</td>
</tr>
<tr>
<td>AVR</td>
<td>Assisted Voluntary</td>
</tr>
<tr>
<td>DESTATIS</td>
<td>Germany's Federal Statistical Office</td>
</tr>
<tr>
<td>DRCM</td>
<td>Global Migrant Origin Database</td>
</tr>
<tr>
<td>EEA</td>
<td>European Economic Association</td>
</tr>
<tr>
<td>EFTA</td>
<td>European Free Trade Association</td>
</tr>
<tr>
<td>EIMSS</td>
<td>European Internal Movers Social Survey</td>
</tr>
<tr>
<td>ESS</td>
<td>European Social Survey</td>
</tr>
<tr>
<td>EU</td>
<td>European Union</td>
</tr>
<tr>
<td>EURES</td>
<td>European Employment Services</td>
</tr>
<tr>
<td>Eurodac</td>
<td>European Asylum Dactyloscopy Database</td>
</tr>
<tr>
<td>EU-SILC</td>
<td>European Union Statistics on Income and Living Conditions</td>
</tr>
<tr>
<td>GESIS</td>
<td>Leibniz Institute for the Social Sciences</td>
</tr>
<tr>
<td>ILO</td>
<td>International Labour Organisation</td>
</tr>
<tr>
<td>IOM</td>
<td>International Organisation of Migration, the UN Migration Agency</td>
</tr>
<tr>
<td>IPUMS</td>
<td>Integrated Public Use Microdata Series</td>
</tr>
<tr>
<td>IPS</td>
<td>International Passenger Survey (UK)</td>
</tr>
<tr>
<td>KCMD</td>
<td>Knowledge Centre on Migration and Demography</td>
</tr>
<tr>
<td>LFS</td>
<td>Labour Force Survey</td>
</tr>
<tr>
<td>MPI</td>
<td>Migration Policy Institute</td>
</tr>
<tr>
<td>NSI</td>
<td>National Statistical Institutes</td>
</tr>
<tr>
<td>OECD</td>
<td>The Organisation for Economic Co-operation and Development</td>
</tr>
<tr>
<td>PROMINSTAT</td>
<td>Promoting Comparative Quantitative Research in the Field of Migration and Integration in Europe</td>
</tr>
<tr>
<td>SOEP</td>
<td>German Socioeconomic Panel</td>
</tr>
<tr>
<td>TCN</td>
<td>Third Country National</td>
</tr>
<tr>
<td>THESIM</td>
<td>Towards Harmonised European Statistics on International Migration</td>
</tr>
<tr>
<td>UN DESA</td>
<td>United Nations Department of Economic and Social Affair</td>
</tr>
<tr>
<td>UNECE</td>
<td>United Nations Economic Commission for Europe</td>
</tr>
<tr>
<td>UNHCR</td>
<td>United Nations High Commissioner for Refugees</td>
</tr>
<tr>
<td>UNICEF</td>
<td>United Nations International Children's Emergency Fund</td>
</tr>
</tbody>
</table>
Introduction

For all the scrutiny of external immigration into the European Union (EU), the monitoring of movements happening *within* the EU is surprisingly rudimentary. Developing a more nuanced understanding of the scale and nature of intra-European migration patterns is, however, a crucial first step in achieving an informed policy debate concerning the impacts and management of migration within the EU. The complexities of migratory movements within the European Union can only be grasped with rich and accurate data, which tracks the trajectories and the characteristics of movers, ideally over time. With this in mind, this paper provides a review of the presently-existing data sources on migration between Member States. In doing so, we evaluate the degree to which the currently-available body of data enables a comprehensive picture of the phenomenon of intra-European migration.

The importance of a regulated EU-level framework to produce reliable statistics on the Union’s (resident) population – including its movements – was recognised by the relevant stakeholders in the early 2000s. Subsequently, a growing number of agreements has been concluded, aiming to establish a system of harmonised statistics at the European level, which is based on cooperation between all Member States. As a result, the availability of basic indicators on stocks and flows of migrants in the EU has improved vastly since the implementation of the milestone 2007 Regulation on Community Statistics on Migration and International Protection (Regulation (EC) No 862/2007).

Nevertheless, considerable shortcomings remain concerning the depth of the available figures. For instance, the aggregated nature of most available large-scale data, such as Eurostat statistics, allows for little nuance to be observed. Therefore, a comprehensive review of existing data sources driven specifically by the objective of exploring the complexities of intra-EU migration may serve not only as a practical guide for research on intra-EU migration, but also as a call for action to policy-makers to further improve the collection and publication of statistics related to migration within the EU.

It is important to mention that the conducted desk review of databases has a deliberate focus on larger, cross-country data collections as the main sources of interest due to their high representativeness and comparability at the EU level. Since the paper is not a classic
inventory of data sources, the logic behind the strategy applied during our database mapping exercise is presented in Section I. Mapping strategy. Next, Section II. The institutional framework and evolution of European migration data collection briefly outlines the evolution of the regulatory framework behind European statistics to provide insights into the larger context influencing the availability and quality of this data. The data sources themselves are discussed in a twofold approach: first, each main source is presented, including its strengths and weaknesses (Section III. Main sources of data on intra-European migration); second, the availability and quality of data is discussed by theme (Section IV. Available statistics and remaining challenges by thematic areas of intra-EU migration). The themes presented include stocks, flows, reasons for migration, irregular migration, lifetime/multiple migrations, as well as short-term migration, circular migration, and cross-border commuting. Finally, the concluding section presents the authors’ conclusions regarding the overall state of intra-European migration statistics, along with recommendations for improvements and further research.

I. Mapping strategy

The goal of this mapping paper is to identify relevant databases and to assess the degree to which they inform on intra-European migration. It is therefore an important first step in our mapping exercise to define what information we look for in these data sources. As mentioned above, an in-depth understanding of migration patterns demands more than just loosely-defined basic migration figures. Specifically, we identify a need for the following, in order to accurately map the scale and characteristics of intra-EU migration:

- **Information on the individual migrant’s citizenship, country of birth, and country of previous/next residence.** These three characteristics are crucial to define who we consider to be an *intra-EU* migrant: Do we only want to look at the EU’s own citizens (including naturalised residents)? Do we want to distinguish by origin as defined by country of birth? Or do we also consider those who changed their residence from one EU country to another (regardless of their citizenship and country of birth)? The size and characteristics of the measured population may vary substantially depending on what constitutes ‘intra-EU’. Ideally, all three variables would be available for the same
individual—or at least, the figure for each definition could be disaggregated by the other two. This would allow identifying relevant subgroups; for instance, the share of third-country nationals versus EU nationals within a specific country-to-country flow of migrants. While the differences in numbers between the three definitions may turn out to be relatively small (e.g., due to a low prevalence of secondary movements), the scale of the discrepancy cannot be known until these figures are available for all EU countries.¹

- **Aggregated values of flows for EU and non-EU groups** (considering the definitions introduced above). Aside from simplicity in accessing EU-level migration values at a glance, data on the aggregate level is needed because country-to-country level data is often imperfect, due to missing values for some or even most countries of origin and/or destination. As above, the simultaneous availability of figures disaggregated by all three definitions (citizenship, birth, previous/next residence) would be ideal.

- **Migration history of the individual.** Information on multiple moves undertaken by the same individual within the EU—or better yet, their migration trajectories over the entire lifetime—can shed light on a number of useful factors for better understanding intra-EU migration. With such information, researchers could observe patterns of migration involving subsequent movements. This could help assess whether and how certain first destinations are associated with specific second destinations, or predict migratory behaviour by assessing whether people who have migrated once are more likely to move again in their lifetime. Extending the period of observation can also help uncover long-term migration strategies within the lifetime (for example, emigration during working-age years followed by return migration at retirement age), circular migration patterns, and information on the length of residence(s).

- **Background characteristics of movers and reason for migration.** This may include demographic (i.e., age, sex, marital status) and socio-economic (employment, income, education/skills) information about migrant individuals, as well as their reason/motivation for migrating (work, education, family, lifestyle, etc.). Knowing these characteristics would help to develop a better understanding of the underlying factors

¹ For a visual illustration of this issue (and further explanation), see Box 1 on page Error! Bookmark not defined. 41.
influencing migration patterns – factors which are at risk of being oversimplified when seen as merely a function of the general sending versus receiving environment. Understanding the composition of the intra-EU migrant population in terms of these variables can help identify push and pull factors as well as preferred destinations of specific subgroups of migrants (defined, for example, by age and education level). In fact, it is possible that subgroups defined by such individual characteristics may show more coherent patterns of migration than groups defined by country of origin. Further, combining this information with data on sending and receiving countries can help identify the profiles of the typical movers for specific migration corridors.

- **Information on short-term, repeated movements.** Migration data typically focuses on movements that last at least one year and/or involve changes of residence. This tends to exclude circular movements, including seasonal migration and cross-border commuting. Given the freedom of movement within the EU – together with other agreements and regulations facilitating the migration of workers, students and others – these short-term, regular international movements have become a key aspect of everyday life in the EU. It is therefore a phenomenon that would be important to capture in data and analyse.

The above criteria set the basis for our review of migration databases. This paper examines the degree to which existing data sources are able to meet these requirements. In doing so, it identifies the most important sources and discusses their utility for research on intra-EU migration, additionally pointing out remaining data gaps. We would like to stress that providing an exhaustive inventory of all datasets containing some information on European migration (primary or secondary) is beyond the scope of this project. Instead, this paper was shaped by the REMINDER project’s aim of creating a practical, goal-oriented “database of databases” for individuals interested in the research objectives identified above. We seek to identify the best available data for each objective, while minimising overlap.

---

2 For this purpose, we recommend consulting completed, migration data-gathering projects with an all-encompassing scope such as the PROMINSTAT project (Promoting Comparative Quantitative Research in the Field of Migration and Integration in Europe), conducted by Kraler and Reichel (see Kraler and Reichel (2010), “Statistics on Migration, Integration and Discrimination in Europe. PROMINSTAT Final Report”) or the THESIM project (see Poulain, Perrin, and Singleton (2006), "THESIM: Towards Harmonised European Statistics on International Migration").
To achieve this, a macro-to-micro approach was taken. First, we developed a wide-ranging overview of existing sources of data based on well-known platforms (e.g. Eurostat, the Organisation for Economic Co-operation and Development (OECD)) and previous inventories of European migration data (e.g. PROMINSTAT, THESIM), including a number of national-level sources. Next, we identified the most efficient types of sources to include in our database and selected the main sources accordingly. After a detailed review of the availability and characteristics of the data available in our main – mostly macro – data sources, we identified remaining gaps, looked for and, where possible, selected additional – typically more micro – data sources to fill these gaps.

Our criteria for choosing the “best” datasets were as follows: if multiple sources covering the same population, event, or phenomenon were available, we included the most reliable and representative one. Additional sources were only included if they contained complementary relevant information and therefore filled a gap in the coverage of time, geographic areas, or variables of interest. Following this logic, databases sharing similar data that originates from the same sources – e.g. international databases publishing data from the same national administrative offices – were considered to be overlapping, and therefore only the most informative database was included (unless the databases somehow complemented each other). Furthermore, we aimed for up-to-date statistics, preferably not older than ten years, but ideally available for the past decade to allow for trend observations over time. Comparability across countries was also a key aspect, which put cross-country databases at an advantage. Given our focus, we targeted data on intra-EU movements in particular, but included more general EU migration data (including external movements) when data for the former was not available. Besides content, ease of use and accessibility were major considerations when deciding whether to include a dataset.

Overall, this strategy allowed us to create a comprehensive, but efficient, collection of the available data relevant to the research objectives listed at the start of this section. To further set up the basis for this paper’s mapping of datasets, the following section provides

---

3 The rationale for including certain datasets and excluding others from our inventory is further elaborated in Section III. Main sources of data on intra-European.
a short overview of the institutional context in which much of the discussed data is being collected.

In addition to the desk review process described above, we conducted five in-depth interviews with experts in migration data, including practitioners from key international organisations involved in the collection and sharing of data on migration, and academics involved in previous European migration data mapping exercises. Potential interviewees were selected based on their expertise and involvement in relevant organisations and/or research projects, and contacted via email. Five out of ten contacted stakeholders agreed to being interviewed. The five interviews included experts from Eurostat, UN DESA (United Nations Department of Economic and Social Affair), IOM (International Organisation of Migration), DESTATIS (Germany’s Federal Statistical Office), and an author of the THESIM and PROMINSTAT projects. During these interviews, the main relevant organisations, data sources, projects, and topics were covered. The goal of the interview component was effectively met, as we started to receive overlapping answers. Sensing data saturation, further interviews were therefore not pursued. A list of interviewed experts and the interview guide are shared in Annex I and II of this report, respectively.

The conducted interviews proved highly useful in complementing the findings of the desk review by confirming or correcting our findings, answering questions that arose during the review process (such as reasons for gaps), and pointing out further possible sources. Due to their positions, some experts also informed us of on-going high-level discussions and upcoming developments in migration data. The interviewed experts also shared their top recommendations for policy-makers and the broader statistical community in order to improve statistics on intra-EU migration in the future, which are reflected in the remainder of this report.

II. The institutional framework and evolution of European migration data collection

During the past decade, the EU has exhibited an increasing commitment to collecting comprehensive migration-related information aimed towards effective migration policies. As a result, over the course of the past decade in particular, significant measures have been
taken to improve data collection practices and to harmonise statistical data at the European level.\textsuperscript{4}

One of the most important recent steps in this regard was the establishment of the European Migration Network (EMN) in 2002, which had the aim of evaluating the quality of migration statistics across the EU. Similarly important was the Communication of the Commission regarding the 2003 Action Plan for the collection and analysis of migration statistics; it stressed the importance of data collection in areas such as non-natural resident population, naturalisation, emigration and immigration, international protection, illegal entry and illegal stay, and residence permits of third country nationals. Until the late 2000s, however, much of the mentioned data was still being collected on a voluntary basis. In addition, data collection was inconsistent and the level of harmonisation among different Member States was low.\textsuperscript{5}

An increasing recognition for the need for more reliable EU-wide data led to the adoption of Regulation (EC) No 862/2007 on Community Statistics on Migration and International Protection in 2007. This was a major milestone for the collection of migration-related statistics across the EU. While this regulation mainly focused on the compilation of statistics on foreign workers, it set the basis for subsequent initiatives that promote coherence across European population and immigrant statistics. Regulation (EU) No 351/2010 and Regulation (EU) 1260/2013 further harmonised the definitions used in population statistics. As a result of these agreements, the following statistics currently fall under unified demographic data collection:

- Immigrants by age, sex, and:
  a. Country of citizenship;
  b. Country of birth;
  c. Country of previous residence.
- Immigrants by country of citizenship \textit{and} country of birth
- Emigrants by age, sex, and:

\textsuperscript{4} Kraler and Reichel (2010), "Statistics on Migration, Integration and Discrimination in Europe. PROMINSTAT Final Report".

\textsuperscript{5} Poulain, Perrin, and Singleton (2006), "THESIM".
a. Country of citizenship;
b. Country of birth;
c. Country of next residence.

It is important to note, however, that not all of these indicators are mandatory to be collected and shared with Eurostat, which strongly affects their availability. Specifically, the following data is collected on a voluntary basis:

- **Before reference year 2008:**
  - Immigration and emigration data by age, sex, and country of citizenship, country of previous/next residence;

- **Since reference year 2008:**
  - Immigration by age, sex, and country of citizenship/country of birth(country of previous residence;
  - Immigration by country of citizenship *and* country of birth;
  - Emigration by age and sex;
  - Emigration by age, sex, and country of citizenship/country of birth/country of next residence.\(^6\)

Other harmonised migration-related data shared with Eurostat based on other regulations include:

- Asylum applications, decisions granting or withdrawing different forms of international protection status, asylum applications by unaccompanied minors, disaggregated by citizenship; and statistics on the operation of the Dublin III Regulation;
- Third country nationals who were refused entry to the Member State at the external border, and third country nationals found to be illegally present under national immigration legislation, disaggregated by citizenship;
- Residence permits issued to third country nationals, length of permit validity and the reason (immigration category) for the permit being issued disaggregated by citizenship; and

\(^6\) Eurostat (2017), "International Migration Statistics Reference Metadata in Euro SDMX Metadata Structure (ESMS)".
- Third country nationals subject to an order to leave the territory of the Member State under immigration legislation, and third country nationals recorded as departing after the issue of such an order, disaggregated by citizenship.

According to Regulation 862/2007, the statistics should be based on sources such as records of administrative/judicial actions, registers of the population or relating to administrative actions, censuses, surveys, etc., depending on their availability in respective Member States.  

Within the current institutional framework of migration data collection, the main providers of data are national statistical institutes (NSI) and relevant ministries of Member States. These organisations are responsible for supplying data to Eurostat, the statistical agency of the European Commission (EC). More specifically, statistics on migration flows, population stocks, and acquisition of citizenship are provided by NSIs. Statistics on asylum and on residence permits are provided by Ministries of Interior or related immigration agencies. Finally, statistics on the enforcement of immigration legislation are supplied by Ministries of Interior, immigration offices or the Border Police. The Commission relies on this data for the analysis of policies and the drafting of reports and proposals.

In line with the Regulation, reports on its implementation are published by the European Commission (EC) once every three years, starting with the first report in 2012. Since the publication of the first report on the implementation of Regulation No 862/2007, several other legislative acts have been adopted to improve the consistency of statistics within the EU. The second and third reports on the implementation of said Regulation, published in

---


Another important improvement relates to consistency; prior to the adoption of the Regulation, inconsistency among statistical definitions used by different Member States was a major problem, leading to complications concerning comparative analysis. Addressing this issue, the Regulation provides harmonised definitions, based on the statistical recommendations of the United Nations and relevant European legislation. According to the EC reports, common definitions have contributed to an increased comparability of the data.

Overall, Regulation (EC) No 862/2007 has led to substantial developments in terms of migration data collection and analysis in the EU. In addition, more sophisticated data collection methods on the part of Member States, such as the growing use of e-government systems, have led to improvements in data availability and quality in recent years, as noted by one interviewed expert (Interview 3).

In the future, regular monitoring of the implementation of the Regulation can be expected to further refine the data collection system. In addition, the Commission regularly observes compliance with the Regulation and takes follow-up steps to address non-compliance by

\begin{itemize}
\item Council Directive 2009/50/EC on the conditions of entry and residence of third-country nationals for the purposes of highly qualified employment;
\item Directive 2011/98/EU of the European Parliament and of the Council on a single application procedure for a permit for third-country nationals to reside and work in a Member State and on a common set of right for third-country workers legally residing in a Member State;
\item Directive 2014/36/EU of the European Parliament and of the Council on the conditions of entry and stay of third-country nationals for the purpose of employment as seasonal workers;
\item Directive 2014/66/EU of the European Parliament and of the Council on the conditions of entry and residence of third-country nationals in the framework of an intra-corporate transfer;
\item Directive 2016/801/EU of the European Parliament and of the Council on the conditions of entry and residence of third-country nationals for the purpose of research, studies, training, voluntary service, pupil exchange schemes or educational projects and au pairing.
\end{itemize}


Member States. Overall, it is a system under continuous development; some of its current and future initiatives for improvement are discussed in the final section of this paper.

Following this brief overview of the EU-level system of migration data collection, the next section discusses the sources of data we identified as most useful for researchers analysing migration within the European Union.

**III. Main sources of data on intra-European migration**

**A. Types of data**

A first distinction regarding the different types of migration data within the EU can be made between information originating from administrative sources versus sample surveys (compiled for statistical or research purposes). Given their differing strengths and limitations, the two types of sources may be best used to complement one another.

Administrative data is generally more representative, given that it aims to record the entire population (e.g. foreign-born nationals) or all events it targets (e.g. naturalisations), as opposed to sample-based efforts, which by nature work with samples and estimations. Furthermore, as pointed out by one of the experts interviewed (Interview 3), administrative data collection typically benefits from the support of national legislation incentivising or obliging the participation of the measured population. Nevertheless, one should note that in particular cases a sophisticated sampling design may lead to a more exact estimation than a poorly implemented administrative recording system. Moreover, administrative records may exclude residents with an irregular status, while surveys that apply a sampling method not based on official records of inhabitants may be able to capture migrants who are "legally invisible". Though even in these cases, the likelihood is minimal.

It is also important to recognise that although it is the primary source of many statistics, the system of administrative records is not typically designed to serve statistical purposes.\(^{12}\) For instance, the state might choose not to collect certain information about its inhabitants (or at least not record all personal information in one place), either because it does not see a

\(^{12}\) See also Kraler and Reichel (2010).
need for it, or more deliberately, for privacy or political reasons. Therefore, only a limited range of variables may be available through individual data sources, which restricts not only the available information on migration itself but also the options for disaggregating the data by multiple factors at once (which could allow an in-depth look at the different demographic or socio-economic groups within a specific migration corridor, for example). Political interests may also be in conflict with the goal of accurately capturing emigration (or immigration) flows for their effect on the reported population size (e.g. in relation to the redistribution of Members of the European Parliament or budgeting).

Conversely, a key advantage of sample-based surveys is that they allow for the inclusion of a wider range of variables, tailored to help produce specific statistics. For instance, when looking at reasons for migration, the ‘reason’ indicated in administrative records – usually residence permits – will be the legal pathway through which the migrant received permission to enter the country (e.g. family or work). The real reason, however, might be different: something more complex (often including multiple factors), perception of the (main) reason changed over time, and/or not the legally most viable option (e.g. lifestyle preference). An anonymous survey has a better chance of capturing the latter (Interview 4) and the complexities of migration decision-making.

An additional benefit of surveys is their relative flexibility compared to administrative data collection systems: changing the list of variables from one round of a survey to the next (e.g. to include questions on migration) has a relatively low cost. Similarly, it is comparatively simpler to implement a cross-country survey using uniform methods than to convince countries to change their administrative systems in order to achieve harmonisation in regional statistics. Furthermore, even when definitions are harmonised, administrative data collection systems can vary significantly across countries, affecting comparability (Interview 4). Finally, panel surveys can provide a unique insight into trends and/or changes in migration-relevant variables over time, instead of a single snapshot.

In sum, administrative data provides a key basis for migration figures in Europe. However, not all administrative data meets the same standards, and data sources such as countries’ registers, censuses, permits and enumerations of events (e.g. naturalisations) have different benefits and limitations in informing researchers about regional migration. Therefore, the
basic data provided by the Member States needs to be complemented with sample-based survey data for more specific and detailed information.

i. Types of administrative data

Population registers are typically considered the most reliable source of data on migrant stocks and flows, as – at least in theory – they register each incoming and outgoing settled inhabitant.\(^\text{13}\) Their primary limitation is their imperfect availability, since not all European countries keep such registers: as of 2017, only 18 out of 28 Member States provided register-based data as a source for Eurostat’s immigration statistics.\(^\text{14}\) Moreover, even when implemented, population registers do not necessarily cover the entire targeted foreign population; for example, when foreigners are expected to present a residence and/or work permit valid for at least as long as the minimum registration period to be recorded in the registry, non-complying (undocumented) immigrants are excluded.\(^\text{15}\)

Deficiencies in registrations can pose a major challenge in tracking migration through population registers even among regular migrants. Generally speaking, the willingness of inhabitants to report their movements depends on the advantages and disadvantages of being registered, as well as the existence and rigour of registration requirements. For these reasons, arrivals tend to be more thoroughly recorded than departures, for instance.\(^\text{16}\)

Overall, the lack of administrative hurdles due to the concept of the free movement of persons within the EU poses a challenge for statisticians. In addition, differences in registration criteria and practices across countries have impeded cross-country comparisons of migration statistics in Europe in the past. In recent years, however, the implementation of Regulation (EC) No 862/2007, together with a push for improvements articulated in the 2012 EC report and the subsequent redevelopments of administrative systems, have

---

\(^{13}\) Poulain, Perrin, and Singleton (2006).
\(^{14}\) Eurostat (2017).
\(^{16}\) Kraler and Reichel (2010).
achieved greater homogeneity – or at least systematically documented deviations – in register-based migration data, as well as in migration statistics overall.\textsuperscript{17}

Population censuses are another vastly comprehensive, and therefore highly representative source of information on immigration across Europe. While it was not a common practice in the past, censuses are now also increasingly gaining acceptance as a source for emigration data (Interview 1). Their main limitation as a source of migration data is, however, that they are generally conducted only every five to ten years, leaving a gap in data for the time periods between censuses (also called \textit{intercensal} years). A number of countries therefore use census data in combination with other sources (e.g. registers or surveys), for example complementing census data with other data in intercensal years, or using census data to periodically revise data collected in other ways. An advantage of censuses is that they may be able to capture a portion of the irregularly residing population excluded from population registers and residence permit records.\textsuperscript{18} Still – similarly to registers – censuses are most useful for basic immigration statistics since they accommodate few questions.

In terms of coherence and accessibility, the EU-wide 2011 Population and Housing Census marked a remarkable step forward. For the first time, data from censuses conducted in the Member States was produced following European legislation\textsuperscript{19} to ensure quality and uniform, comparable outputs. EU-wide census rounds were also conducted in 2001 and 1991, but these were merely based on an agreement, which was not legally binding. The harmonised Census 2011 data is available on Eurostat’s general database as well as through the Census Hub, a new transmission system developed specifically to disseminate the 2011 Census.\textsuperscript{20}

In addition to population registers and censuses, administrative records targeting specific subsets of the population comprise an important source of data on migration within Europe.

\textsuperscript{18} Poulain, Perrin, and Singleton (2006).
\textsuperscript{20} Eurostat (2014), "Census 2011 Round (Cens_11r) Reference Metadata in Euro SDMX Metadata Structure (ESMS)".
Statistics related to naturalisations, asylum, residence permits, and the enforcement of immigrant legislation, for instance, are often produced through administrative records collected by specialised agencies within the Ministries of Interior, related immigration agencies, or Border Police. Moreover, the use of data from specific registers such as health insurance registers or tax registers was noted as a key step in improving European migration statistics in the Commission’s 2015 Report.\textsuperscript{21}

Some typically rich sources of information for migration data are, however, less informative when solely focusing on intra-European movements. Residence permit records, for instance, are usually a useful source because they contain information on migrants’ (declared, planned) length of stay and reason for migrating. However, regarding intra-European movements, this data is of limited use as it does not track the previous country of residence. As such, the only “origin” country recorded is the country of citizenship. This means that TCNs migrating between EU countries are not captured in residence permit records as intra-EU migrants. At the same time, EU citizens moving from a third country to an EU country other than that of citizenship may well be considered intra-EU migrants based on this data.

A focus on migration from beyond the EU is also evident in asylum-related data. Since the country considered responsible for the asylum procedure under the Dublin regulation is usually the country through which the asylum-seeker first entered the EU, most of the asylum-related data tracks arrivals from outside the borders of Europe. A relevant exception regarding intra-European movements is data on Dublin transfers, which refers to asylum-seekers whose asylum procedure is being transferred from one Member State to another following a request for either one country to take charge of the application instead of the original country assigned, or to take back the asylum-seeker from another country to the original country assigned. Nevertheless, these statistics are hardly representative of the overall picture: asylum-seekers’ secondary movements only comprise a subset of overall

secondary movements, and these statistics merely capture the legally visible part of this subset.\textsuperscript{22}

\textit{ii. Surveys}

The role of sample-based surveys in gathering migration data is twofold: firstly, as mentioned above, they are uniquely able to add nuance to the basic migration statistics provided by administrative records; and secondly, they often serve as complements or alternatives to administrative data when it is incomplete or missing altogether. Focusing on intra-EU migration data, we distinguish between cross-national and national surveys. National gaps in administrative data collection are typically filled with the use of national surveys (e.g. UK International Passenger Survey for the UK’s migrant flows statistics). When the goal is to provide nuanced data for research spanning across multiple European countries, however, cross-national surveys are more practical tools than national surveys: similar sampling procedures, definitions, and overall homogenous surveying methods allow for the data from different countries to be used as one coherent dataset. The benefit of national surveys, besides being the only available option in some cases, is that they are more likely to offer panel data than cross-national surveys (to the knowledge of the authors there is currently no panel cross-country survey in the EU), and can target questions relevant to the specific country context. This makes them a useful (additional) source even when cross-country surveys are available.

Both at the national and cross-national level, a critical limitation of existing European migration data is the lack of migration-specific surveys. As indicated by an interviewee, the decision of the European Statistical System in this regard has been to privilege the inclusion of migration-specific variables in regular surveys \textit{(migration mainstreaming)}, rather than to set up a specific migration survey. This is largely due to the challenge associated with establishing a reliable sampling frame when conducting a survey specifically targeting migrants. Even though questions enabling the identification of migrant individuals are often included (e.g. country of birth), the lack of an oversample of migrant individuals makes their subsample too small for analysis. Furthermore, \textit{migration-specific} surveys usually target the topic of integration, focusing on current socio-economic indicators of the migrant and

\textsuperscript{22} Eurostat, "'Dublin' Statistics (Migr\_dub) Reference Metadata in Euro SDMX Metadata Structure (ESMS)".
overlooking questions related to the act of migration itself (i.e. previous movements, motivations for doing so, plans to return, characteristics at the time of migration, etc.).

B. Most suitable datasets for researching intra-European migration

i. Databases based on administrative information

a. International online (administrative) databases

We find that the most practical way to access large-scale administrative data on intra-EU migration today is through the online international databases which collect data directly from Member States’ national statistical institutes (NSIs) and share that data on an online platform in a uniform system. International databases have multiple advantages for researchers, particularly for those with an international focus: these platforms provide open access to a comprehensive collection of European migration-relevant data in English, organised in a manner that allows for cross-country comparisons; they conveniently present multiple Member States’ data all in one place in the same format, broken down by topics, years, and other available disaggregation options. The metadata included with the datasets typically contains information on the primary sources of the data and notes differences in methodology which further supports comparability.

Such databases are thus generally the most user-friendly and efficient source for comparative European migration statistics, especially when trying to gather cross-country administrative data. It is important to note, however, that the presented data is typically in aggregated form and has a limited variable list. In case of in-depth country studies, it is therefore advisable to also consult the NSIs directly, as they might be able to provide further datasets or more detailed versions of the data, including additional indicators.

Eurostat database

Eurostat offers the most comprehensive database of European statistics overall, including data on migration within the region. Senior migration data experts across different organisations interviewed for this report seemed to agree on Eurostat’s population database being the number one source for European migration statistics, particularly in light of the massive improvements achieved in this area over the past 10 to 20 years (Interviews 1, 2, 3, 4). As explained in detail in Section III. Main sources of data on intra-European ,
Eurostat regularly collects a variety of migration-related statistics directly from the NSIs and presents them within a harmonised framework. This data is then shared on a freely accessible online database on Eurostat’s website, which presents the information categorised by themes. Under each theme, a number of interactive tables present subsets of the data including all Member States plus EFTA (European Free Trade Association) countries. The thematic data is often split into sub-themes and different options for disaggregation (e.g. citizenship, age, sex) across a list of tables. This system allows for a practical overview of figures for all countries, with a manageable amount of data per table.

In line with the list of mandated indicators outlined in Section I. Mapping strategy, this database provides statistics on immigrant and emigrant flows disaggregated by age, sex and citizenship, country of birth or previous/next country of residence. In addition, for some countries, a cross-tabulation of inflows by citizenship and broad group of country of birth (and vice versa) is available, split into EU vs non-EU categories. Information on migrant stocks is also provided through population data, which can be disaggregated by age, sex, and citizenship or country of birth.

While this is an immensely useful body of data that is structured and presented in a clear way, the availability of the listed indicators varies significantly across countries, particularly in the case of data that is not mandatory to share. In other words, the data presented on this platform reflects the list of indicators included in the relevant regulations.

From the perspective of migration research, a drawback of this system is that further potentially useful indicators – such as inflows disaggregated by previous residence and citizenship of immigrants – that are not specifically outlined in the regulation are not provided by Member States and are therefore not available on the platform. Furthermore, given that the data originates primarily from administrative records, the overall list of

---

23 Besides the mobility-related datasets mentioned in Section I (categorized under the Population and the Asylum and Managed migration themes in the Eurostat database), under the Education and training theme, Eurostat’s online database also publishes the joint UNESCO-OECD-Eurostat (UOE) database on education which includes key data on student mobility within Europe (for more details, see Section III).

24 Also worth noting is the previously mentioned Census Hub within Eurostat, an online platform specifically designed to allow national statistical institutes to share census data directly with users.

25 Specific availability issues are further discussed in Section IV. Available statistics and remaining challenges by thematic areas of intra-EU migration.
available background variables of individuals is limited (typically to age/age group, sex, country of birth, and citizenship).

The quality of produced statistics is ensured through technical guidelines (e.g. harmonization of definitions and preferred data sources) and validation checks. The fact that Eurostat’s collection process is backed by EU regulations greatly helps to ensure the provision of these statistics by Member States (Interview 3). The benefits of this regulated data gathering process are reflected in the relatively high availability and quality of Eurostat migration statistics, which cover most European countries for the past decade\(^2\) – with some exceptions. Existing gaps are notable, especially regarding the more detailed data for specific countries. For instance, total immigration flow figures are available for almost all countries for the past ten years; however, a sub-selection of immigrants with a previous residence in an EU-28 country is only available from 2013, while data specific to individual countries of previous residence continues to be missing for nearly half of the Member States.

Another important advantage is the availability of metadata for each dataset, even if the quality of these documents varies. A fairly common issue is the lack of indication of exact data sources for individual countries. Sometimes sources are missing altogether; in other cases blanket terms such as administrative sources are used. It would also be helpful to know why data is missing for specific countries and/or years within certain themes, i.e. whether the country systemically did/does not collect the data, did not collect it for a specific period, chose not to share the data, or whether there was a problem with the quality of the data. In general, knowing in which cases the data is collected but not shared versus it not being collected altogether could help estimate chances for future (or conditional) availability of data. On a positive note, precise definitions (including occasional differences in definitions) are always specified in the metadata, which is a great aid for cross-country research.

An additional tool that makes Eurostat databases fit for cross-country research is the availability of variables coded following international classifications (e.g. broad citizenship

\(^2\) Some data is available even further back: total migrant flow and stock data, for example, are available starting 1998 and 1999, respectively.
groups, occupation, or education). Finally, a key benefit of the Eurostat database is its publicly accessible online bulk download facility, which enables users to easily download multiple datasets at once; multiple formats are available, allowing researchers to work with the data in different types of data analysis software.\(^{27}\)

All in all, while Eurostat is the most practical first source for a comprehensive overview of EU-focused migration statistics, due to remaining gaps in the availability of data for particular countries – further explored in Section IV. Available statistics and remaining challenges by thematic areas of intra-EU migration – and the limited number of indicators, there is still considerable room for improvement. For more details, researchers may need to resort to other sources, including UN DESA, OECD, and the relevant NSIs, or, depending on the topic, surveys such as the Labour Force Survey (LFS) or the Eurobarometer.

**United Nations Global Migration Database (UN DESA)**

The migration figures produced by the United Nations Department of Economic and Social Affairs (UN DESA) are perhaps the most widely used, on a global level. Although the main asset of UN DESA data is its global (or at least multi-continental) scope rather than its depth, it comprises a valuable back-up to Eurostat data in this case. The latest revisions for both international migrant flows and stocks are directly available online (2015 and 2017, respectively). A key advantage of both is that they cover all 28 Member States (providing comparable data in a comprehensive collection), aim to capture all bi-lateral (country-to-country) migration, and are accompanied by good quality metadata. It is important to note that, while UN DESA flow data is unique in that it includes residence-based immigration data, its gaps are similar to those of Eurostat. A conversation with an expert from the organisation (Interview 2) confirmed that this is due to the fact that this data comes directly from Eurostat and as such is the same data presented in a slightly different way.

We find that the stock data, although only available for 5-year-periods (e.g. 2010, 2015...) and 2017, does contain some of the detailed data (age and sex) that is missing from Eurostat’s population stocks. Drawbacks of the UN DESA data in general include a lack of aggregated EU-level figures (although Europe as a region may be present), the format of the

\(^{27}\) The bulk download facility contains files in XML (Extensible Markup Language) or TSV. Further formats, including XLS, CSV, SPSS, or PDF, are available for download in the data explorer tool.
data (Excel tables), and missing data. Finally, it is important to note that, like Eurostat, UN DESA relies on the information recorded and shared by individual countries – to a large degree, its supply is therefore a function of country-level decisions (Interview 2). Advantages and disadvantages of the two UN DESA databases are discussed in more detail in Section IV.

OECD Migration Data

The Organisation for Economic Co-operation and Development (OECD)’s International Migration Database is another major source of migration-relevant information obtained directly from national correspondents. Covered topics include inflows and outflows of foreign population, inflows of asylum-seekers, stocks of foreign and foreign-born populations and labour, and acquisitions of citizenship. From an intra-EU migration perspective, however, this platform is of limited use. Firstly, OECD migration data in general excludes the six non-OECD member European Union states (Bulgaria, Croatia, Cyprus, Lithuania, Malta, and Romania). Secondly, disaggregation is only possible by country of nationality or country of birth and sex.

The coverage is therefore limited compared to Eurostat (and UN DESA) in terms of geography, themes, and background variables. Nevertheless, within the covered areas, the OECD’s database occasionally contains data that it is noted as missing in Eurostat and/or UN DESA databases, which makes it a potentially useful complementary source. As in the case of UN DESA, an additional benefit of the OECD database is the detailed metadata available for each type of migration statistic, which is often more thorough in reporting the respective sources of data for each country than that of Eurostat. Also worth noting is the yearly International Migration Outlook’s Statistical Annex (latest edition: 2018), which provides an overview of recent OECD migration statistics by theme and country (including rich metadata).

---

28 It should be noted that differences in the availability of certain indicators may be due to differences in definitions compared to other sources, e.g. Eurostat (Interview 1, 5). Double-checking definitions used and being aware of potential comparability issues is key when merging data from different sources.

29 OECD (2016).
Other international databases

Multiple other popular international databases collect large-scale (mostly) administrative data relevant to migration. When it comes to intra-EU migration in recent years, however, we find that these datasets hold little to no additional value compared to Eurostat (especially once complemented with UN DESA and/or OECD data).

That being said, one particularly relevant data re-publishing platform is the Migration Dynamic Data Hub provided by the European Commission’s (Joint Research Centre) Knowledge Centre on Migration and Demography (KCMD). Part of the effort includes a Data Catalogue, a wide-ranging metadata catalogue providing a short description and online links to relevant data sources by area of EU migration data.30 One of these areas is *Internal migration*, referring to intra-EU migration, which is also this report’s area of focus. Yet, the KCMD’s catalogue follows a broader inclusion logic for sources and is less analytical in the presentation given its wider scope. It is, nonetheless, a highly relevant and practical metadata collection, which we greatly recommend as a complement to data mapping effort concerning intra-EU migration.

The Dynamic Data Hub is an interactive mapping tool, sharing statistics provided by largely the same major sources we identify (Eurostat, UN DESA, and OECD). Its focus is not specifically on internal movements, but it does present aggregated values of total EU28 migrant flows and stocks in individual Member States, illustrated on a heat map.

Moving on to other major secondary databases, both the Global Migrant Origin Database (DRCM) and Integrated Public Use Microdata Series (IPUMS) are impressive global census data collection efforts, but face limitations: data from the former is from around the year 2000, while the latter only contains half of EU countries. Overall, Eurostat provides better access to EU countries’ census data (up-to-date and for all Member States), either through its general database or the Census Hub.

A number of other popular migration databases, such as the United Nations International Children’s Emergency Fund (UNICEF) Data or the Migration Policy Institute’s (MPI) data hub, essentially reproduce data from one or both of two sources: UN DESA and the United

---

30 European Commission (2019), "KCMD Data Catalogue: Internal Migration".
Nations High Commissioner for Refugees (UNHCR). For our purposes, UN DESA data is best accessed directly; UNHCR provides wide-ranging data on asylum-related migration and could in fact be useful for complementing migration data for countries where asylum-seekers are not included in immigrant stocks or flows. When focusing on intra-EU movements, however, Dublin transfers and returns are the only relevant portion of official asylum-seeker data. These are, however, already made available by Eurostat.

Further popular sources for migration statistics in general include the International Labour Organisation (ILO) and the World Bank, but again, these are not informative sources for recent data on intra-EU movements. This is due to the fact that ILO statistics do not include EU countries. The World Bank migration data includes net migration indicators (already available through Eurostat) and the Databank on Global Bilateral Migration could be a very useful tool if continued, but currently stops at the year 2000.31

b. National statistical institutes as complementary data sources32

Moving on to national statistical institutes (NSIs) as complementary sources of statistics, we find that, while the data provided by individual NSIs might be richer than that found in international compilations, the NSI approach is often less efficient – especially when trying to collect comparable data on multiple countries. One of the main drawbacks of obtaining data from the NSIs is that it often involves a slower, multiple-step process. Access might be limited to nationals or to on-site use, and datasets may only be available in the local language. Furthermore, the researcher may not benefit from the homogeneity (in methodology, definitions, variables) of the data that countries are required to provide when the information is collected within a single overarching framework.

This sub-section explores how the data disseminated by the individual national statistical institutes compares to those available via the Eurostat database, noting some regional

---

31 The World Bank also publishes information on remittance flows (and how they compare to migrant flows), which falls outside the focus of this project, but is noteworthy for migration research in general. In addition, data on workers’ remittances and personal transfers are available in the Eurostat database.

32 The research team looked at the websites of each Member States’ NSI and in some cases consulted help of colleagues within the university that speak the relevant language. Yet, there is a minimal risk that some information was missed in the mapping exercise, particularly when it comes to the national data sources.
trends in the quality and accessibility of data. Information is based upon a content analysis of each website of the various statistical institutes of the EU Member States.

With a few exceptions, migration data at the national level is generally less accessible and more scattered compared to Eurostat. While most states have information on the country of origin and citizenship of migrants, data on country of previous residence is publicly available in only 13 Member States (note: this is comparable to Eurostat). At the national level, there is a tendency to aggregate immigration data by macro-area of origin (EU, non-EU), which constrains the full potential of those statistics. This trend is particularly visible in Eastern European countries such as Hungary, Poland, Estonia, Croatia, and Lithuania, but also in smaller states such as Malta and Portugal. In addition, these countries, as well as Southern European countries, France, Belgium, and Luxembourg, only translate partial information to English, limiting the international accessibility of their data.

As mentioned above, we note a tendency among most Eastern European countries, small countries, and countries characterized by lower economic performance to provide less exhaustive migration data compared to their larger and/or wealthier peers. This group includes Croatia, Slovenia, Hungary, the Czech Republic, Slovakia, Poland, Lithuania, Estonia, Luxembourg, Portugal, Cyprus, Malta, Romania, and Bulgaria. Migration statistics provided by these countries are, generally speaking, less available at the national level than at the supranational level (Eurostat, OECD, and UN DESA have more information), as data is not always reported and/or openly accessible.

Despite this shared trait, this set of countries remains a highly heterogeneous group. Some countries, such as Slovakia, have no migration section on their website, nor migration data. Croatia provides information on country of birth and place of residence in Croatia, but no information on age or sex. Similarly, Luxembourg only shares the aggregated number of immigrants. Other countries, such as Romania, Belgium, and Poland, also have an aggregated figure for immigrants (or foreigners), but this can be disaggregated by age and sex. Finally, some countries indicate countries of origin as well as age and sex of migrants.

33 Note: by countries here we refer to the respective countries’ national statistical institutes (more specifically, the information available on their websites). NSIs were also contacted individually via email for more accurate information, but not all contacted institutes have responded; the information learnt as a result of this effort has helped complement the findings presented in this section.
(e.g. Estonia). Other countries provide information on migration, but it is partial: Luxembourg, for instance, only shares aggregated figure of immigrants; Croatia provides information on country of birth, but not age or sex; Romania, Belgium, and Poland also aggregate immigrants by a single definition without differentiating by origin countries, but include and age and sex disaggregation; finally, some countries indicate all three – country of origin, sex, and age – but this information is still poorer than that found in the Eurostat database.

A suggestion for these countries would be to follow the example of the Maltese National Statistical Office. On their website, they have a section dedicated to EU statistics, in which they link the user to international databases in which more information can be found. This kind of outsourcing mechanism could be easily implemented by other offices, and it would result in a complete picture of the available statistics of a given country.

Austria, Finland, France, Greece, Italy, Latvia, Netherlands, and Spain represent a second group of countries. In this group, migration statistics at the national level are very similar, if not equal, in terms of available data to the statistics that can be retrieved from supranational databases. Almost all of these countries’ NSIs provide statistics on the country of birth, country of citizenship, country of previous residence, age, sex, education, occupation, and marital status of the immigrant population. These statistics are generally available from early 2000 until 2016. The main limitation of the statistics provided and disseminated by those countries – except for the Netherlands and Finland – is that yearbooks, reports, and articles are only partially retrievable in English. Statistics in Latvia and Greece are largely based on the 2011 Population and Housing Census, so most of them are only available since 2011. In Spain and Italy, microdata from administrative sources integrate information on migration and sometimes represent unique information that is not reported on Eurostat. In Greece, by looking at output tables and reports of the Hellenic Statistical Authority, it stands out that with the full census data, it will be possible to cross-tabulate between country of origin, citizenship, and country of previous residence. This is also possible with Austrian statistics. Cross-tabulation represents a unique feature, which is not captured by Eurostat statistics, yet it is crucial to understand intra-EU migration.
The last group of countries is composed of Denmark, Germany, Ireland, Sweden, and the United Kingdom. These countries have more exhaustive migration statistics at the national level than at the international one. Statistics are, by large, open access and translated into English. Statistics of the United Kingdom include information on occupation prior to migration, reasons for migration, and previous reasons for migration – it should be noted, however, that these statistics are largely survey-based (UK International Passenger Survey), and therefore limited in accuracy. In Germany, the Research Data Centre (FDZ) of the German Federal Employment Agency (BA), has a variety of microdata originating from administrative registers and surveys with very accurate and vast information on migration and labour market history variables. This data is highly valuable, since in-depth German migration data is at times missing from the Eurostat database, mostly due to definitional differences (Interview 5). Ireland has information on the level of English, religion, level of education, ethnicity, and field of study of migrants. Swedish data is available dating back to 1968, and has information on seasonal and circular migration. In the United Kingdom, Ireland, and Denmark it is also possible to cross-tabulate between the country of origin, citizenship, and country of previous residence.

All in all, the degree to which the administrative data available through NSIs can be used to complement Eurostat data is highly dependent on the individual country: as presented above, cases vary from missing entirely to presenting very rich data.

**ii. Survey-based data**

**a. Cross-national surveys**

As previously mentioned, for the purpose of studying intra-EU migration, we find larger, international surveys to be preferable to smaller-scale, national surveys, given their advantage in representativeness and comparability of cross-country results. An overall larger sample size is beneficial because surveys that would otherwise address relevant topics often lack a significant oversample of migrants. The *ideal* intra-EU migration survey would in fact have an EU-wide coverage with a migrant oversample – or exclusively migrant sample – in each country, with questions addressed specifically at migratory behaviour.

---

34 A fact that was also recently discussed by the UK Office for National Statistics as can be seen here: https://www.bbc.com/news/uk-49420730
(including migration history) and relevant background variables capturing (also) individual characteristics at the time of migration. This would help see EU migration decisions in the personal context of individuals, enabling a better understanding of the drivers behind observed patterns.

At the time of this report, such a survey had not been created. We therefore discuss the existing surveys that best approximate the set of features outlined above: most notably, the Labour Force Survey, the European Internal Movers Social Survey (a one-time survey from 2004), and selected waves of the Eurobarometer.

**Labour Force Survey (LFS)**

The LFS is widely considered the most useful on-going survey for data on intra-European migration (Interviews 3, 4). The LFS is the largest European household sample survey, producing comparable data across all 28 Member States (plus two candidate countries and three countries of the EFTA).³⁵

The core questionnaire of the LFS collects quarterly data on labour participation of Europeans aged 15 and over. It allows for the identification of migrants through their country of birth and nationality, but with limitations: countries of nationality and birth are aggregated into the following groups: national/native; EU15; 2004-accession countries (10 in total); 2007 and 2013 accession countries (3 in total); EFTA; other Europe; and groups for other main regions of the world outside Europe. This limitation prevents researchers from using LFS data to identify bilateral country corridors and the obviously useful analysis of migrants with specific countries of origin. Nevertheless, given that the EU accession timeline followed some regional patterns, the grouping does at least distinguish between some main regions within Europe. Years of residence in the surveyed country are also included, which is fairly rare information for migrants who are EU nationals. Besides a number of labour and socio-economic characteristics, migration-relevant variables include the country of place of work (which enables identification of cross-country commuters), the year when the highest education was obtained (which may be cross-referenced with years of residence to see if it was obtained in the host country), and the country of residence one year before the survey.

³⁵ The quarterly LFS sample size across the EU was about 1.6 millions of individuals in 2015 [Eurostat, “European Union Labour Force Survey: Description of the Dataset”].
which could shed light on the trajectory of (likely) the most recent migration. However, despite the large size of the overall sample, the relatively small size of the migrant subsample in most countries limits the benefits of the LFS.\(^{36}\)

Two of the experts interviewed highlighted that the aggregated nature of origin-country variables in LFS microdata is likely due to the fact that for many participating countries the migrant sample sizes are fairly small to begin with. Disaggregating that for not just aggregated origin groups, but specific origin countries, would result in samples so small that the estimates would become unreliable (Interviews 3, 4). Besides quality criteria, small-sample observations in the microdata may also be merged to protect confidentiality and data protection criteria (for instance, a sample size of fewer than 50 individuals would not only result in a large margin of error, but might also make it possible to identify individuals representing a very small subset of the population and thereby breach confidentiality of data) (Interview 3). However, national quality and confidentiality criteria may in some cases be more lenient than Eurostat criteria. This means that, in some cases, more detailed or a larger amount of country-level data from LFS is shared on national platforms compared to the joint microdata files available via Eurostat. For in-depth country studies, it may therefore be advisable to consult the relevant NSI(s) for LFS microdata.

In 2008, the annual ad-hoc module focused on the labour market situation of migrants and their descendants, oversampling migrants, for a total sample of approximately 1.44 million observations.\(^{37}\) A similar module was carried out in 2014 and is planned again for 2021. The ad-hoc modules cover most EU-28 countries, with the exception of Croatia and Finland in the 2008 round, as well as Denmark, Ireland, and the Netherlands in the 2014 round; furthermore, access to microdata is not available for Germany.\(^{38}\)

Regarding information on intra-European migration, two variables stand out from the 2014 ad-hoc questionnaire: reason for migration and the last country of work abroad. The former

\(^{36}\) Eurofound (2010), “Analysis of the Socioeconomic Situation of Migrants – Gathering Comparable Data on Their Living Conditions”.


\(^{38}\) As explained during an interview with experts from DESTATIS (Interview 5), this gap is due to Germany not having implemented a relevant directive.
targets a key gap in knowledge regarding the drivers of intra-EU migration, which is especially difficult to track for those who can move freely within Europe (residence permit data typically includes the nature of migration). Information on the last country of work abroad can be used to track potential multiple movements across Europe.

The core of the thematic ad-hoc modules of the LFS are therefore useful additional sources for information on European migration, but with room for improvement. Assuming that an oversample of migrant respondents is unlikely to be implemented in the core survey – although this would be most helpful – improvements in migration measurement could be achieved with the addition of the following variables to the upcoming ad-hoc modules: reason for migration, planned length of stay, future migration/return plans, previous countries of residence in Europe (incl. years), and labour and education characteristics at time of migration. At the time of writing this report (mid-2018), we were informed by one interviewed expert that some of the variables from the ad-hoc modules, such as reason for migration, are indeed likely to be included in the future regular waves of the survey (Interview 3).

From a practical point of view, difficulty of access is an issue when it comes to migration-relevant data within LFS. The aggregated data available through the Eurostat online database does not include those variables that are the most useful sources of additional information compared to administrative data (in terms of years of residence, prior migrations, reasons for migration and cross-country commuting). Microdata including all variables is accessible for researchers, but subject to a fairly complex and lengthy (8-10 weeks) application process. In addition, Germany does not provide access to its LFS microdata – a considerable impediment to our type of research, given that the country is both a major receiver and sender of EU movers.

**European Internal Movers Social Survey (EIMSS)**

The European Internal Movers Social Survey, carried out in 2004, was the first – and, to our knowledge, only – large-scale systematic survey-based study of intra-EU migrants. EIMSS was carried out as part of the PIONEUR project, which aimed to fill the gap in knowledge about the socio-demographic profile and, in particular, the motivation, life patterns, and personal consequences of migration for European citizens who have migrated from one
Member State to another. The sample contained 5,000 European citizens residing as foreigners in France, Germany, the United Kingdom, Italy, and Spain.\(^{39}\)

The dataset is highly informative since it is one of the very few sources containing detailed information on lifetime migration within Europe (giving information on every other country the respondent has lived in, prior migration to the current destination country, reasons for settlement, and future moving aspirations including retirement), among other relevant variables. The main drawback of the survey is that it was carried out over a decade ago; a follow-up round (ideally extended to include more European countries) could provide invaluable information on the patterns and drivers of intra-EU migration. Access is extremely easy, immediate and at no cost: the primary data is available to download online for researchers via the GESIS (Leibniz Institute for the Social Sciences) database.\(^{40}\)

**Eurobarometer**

The Eurobarometer is primarily known as the EU’s main public opinion survey, but some of its waves have actually targeted key questions related to understanding European migration. Specifically, the 2005 Eurobarometer survey on *Geographical and labour market mobility* (wave 64.1), the 2007 Eurobarometer on the *Geographical mobility of citizens*, and the 2009 follow-up to the former (*Geographical and labour market mobility*, wave 72.5) addressed topics including Europeans’ migration experiences and intentions, as well as reasons encouraging or discouraging people from moving. For instance, topics covered in the 2009 Eurobarometer include:

- Respondents’ opinions about the impact of people moving across regions or countries within the EU on individuals, families, the economy, the labour market, and European integration;
- Respondents’ experiences of living, working, and/or studying abroad;
- Respondents’ plans to work abroad in the future;
- Positive and negative experiences of those who have already worked abroad;


\(^{40}\) Database available at https://dbk.gesis.org/dbksearch/sdesc2.asp?no=4512
- Motivations and disincentives for working abroad;
- Perceived issues to be faced when working abroad;
- Ways respondents think they would find work abroad; and
- Respondents' knowledge of EURES (European Employment Services), and the services they would look for in an employment service.41

Given the sample size of 1,000 interviews, it should be noted this data serves not so much as a source for exact figures on migration flows within the EU, but rather as an insight into migration tendencies and intentions, as well as the influencing factors that shape these attitudes and decisions.42 Additionally, the 2009 data is becoming relatively old: a new – post-financial crisis – wave of the special survey on migration would be highly useful. Like EIMSS, primary data from the Eurobarometer surveys is very easy to access via the GESIS online database, where users can freely download the data in formats compatible with multiple types of data analysis software.43

Other international surveys

Besides LFS, Eurostat’s other major survey gathering information on the socio-economic situation of Europeans is the European Union Statistics on Income and Living Conditions (EU-SILC). It is similar to the LFS in terms of design and implementation, but focuses more on income and issues related to social inclusion and poverty. It also allows identification of migrants by country of birth, citizenship, and years of residence (latter two not included for all countries), and provides information on the socio-economic background of individuals. It is a longitudinal survey, which makes it particularly interesting. However, it works with a significantly smaller sample than the LFS44 – making the absence of a migrant oversample a more severe problem – and lacks some of the useful additional migration-related variables included in the LFS (e.g. information on commuters, country of residence one year prior to

---

41 European Commission (2010), "Geographical and Labour Market Mobility" (Special Eurobarometer 337), 5–6.

42 Interviews with experts provided further confirmation that the smaller scale of the survey, paired with the fact that it only carried out in the local language and it does not aim to accurately sample migrant minorities, is likely to lead to major bias in the migrant population represented (Interview 3, 4).

43 https://www.gesis.org/eurobarometer-data-service/search-data-access/data-access/

44 EU-SILC’s minimum effective sample size is below 300,000 individuals in total [Eurostat (2016), “EU Statistics on Income and Living Conditions (EU-SILC) Methodology – Sampling”].
the survey). In summary, given EU-SILC’s similarities but mentioned challenges, we consider LFS a preferable source of survey data to EU-SILC for researching intra-EU migration specifically.

Similarly to the Eurobarometer, the European Social Survey (ESS) is a major cross-country survey focusing on attitudes and opinions of Europeans. However, contrary to the Eurobarometer, for the ESS no waves targeting EU migration have been implemented; the latest wave focusing on attitudes towards immigrants was carried out in 2014, but contained only one question concerning EU migrants, asking respondents to what degree they would allow immigrants from poorer European countries into their country. Thus, we do not consider the ESS a very useful source for understanding the facts of European migration.

One interviewed expert has highlighted the European Health Interview Survey as a further useful source on intra-EU migrant populations (Interview 3). While only two waves of this survey have been carried out so far (2006-2009 and 2013-2015), it may contain helpful information for intra-EU migration research given its relatively large sample size (nearly 200,000 respondents across EU Member States in its latest wave) and inclusion of country of birth (aggregated into 3 categories: natives, EU citizens, and others) and basic demographic information on respondents.

International student or graduate surveys can be relevant even if they do not specifically focus on migration because they provide additional insight into a specific (and young) cluster of the population. The OECD’s Programme for International Student Assessment (PISA) is a triennial survey testing the skills and knowledge of 15-year-old students worldwide, including all EU countries in its latest (2015) round. The list of migration-related variables is limited (country of birth, years of residence), but PISA nonetheless can be a helpful additional source of data on the adolescent (15-year-old) cohort within migrants across the EU. PISA data is freely available through its online database.

---

45 European Social Survey (2015), "Attitudes towards Immigration and Their Antecedents - Question Design Final Module in Template".
47 PISA database available at https://www.oecd.org/pisa/data/
REFLEX and its extension for Eastern Europe, HEGESCO, are two large-scale European surveys for higher education graduates. Altogether the two projects cover 18 European (16 EU-28) countries. The surveys did not oversample migrants and the data is somewhat old (from 2005 and 2007, respectively, targeting graduates from 5 years earlier); it is, nevertheless, highly valuable since it can provide rare insights on extended migration trajectories of graduates by specifying their country of birth as well as the country of residence at age 16, during higher education studies, when first starting employment, and at the time of the survey. The datasets are freely available for research purposes via request by email.

b. National surveys

In addition to the above, we find few national surveys that provide useful additional nuances on intra-EU migration considering the information available through Eurostat and LFS. Three national surveys that do stand out are the German Socioeconomic Panel (SOEP) and the United Kingdom’s (UK) Understanding Society Survey and International Passenger Survey.

While its sample size is a fraction of those of national Labour Force Surveys, SOEP remains a remarkably rich source of data, as it looks into lifetime migration with detailed questions regarding past and future migrations; the panel nature of the data further helps to track migration trajectories. The data available through SOEP is particularly important given the lack of access to microdata for Germany in the LFS and gaps in the data shared by the country via Eurostat. SOEP microdata is freely available to researchers upon request via email and with a bit of a wait.

Datasets derived from both the Understanding Society Survey and IPS are available through the website of the UK Data Service portal (upon registration). Selected waves of the UK’s

---

48 Austria, Finland, France, Germany, Italy, the Netherlands, Norway, Spain, UK, Belgium-Flanders, Czech Republic, Portugal, Switzerland, Estonia, Lithuania, Poland, Hungary, Slovenia (plus some non-European countries).

49 More information on REFLEX and HEGESCO is available at http://roa.sbe.maastrichtuniversity.nl/?portfolio=reflex-international-survey-higher-education-graduates.

50 Ireland’s Quarterly National Household Survey is also a rich source of national data, but for the purpose of this paper we regard it as a part of the Labour Force Survey and therefore do not discuss it separately.

51 UK Data Service Portal available at https://ukdataservice.ac.uk/
Understanding Society survey comprise a similarly valuable – and rare – source of data on migration history: wave 1 (2008) asks both natives and immigrants detailed information on the countries they have lived in prior to the time of the survey. These include the number of countries and the location (up to 5), questions on moves before and after having first moved to the UK, and age when migrating to the UK. Additionally, it includes questions on internal migration. Wave 3 in 2010 only had two questions on future plans to migrate (similar to those in Eurostat). Wave 7 (2014), on the other hand, repeated not only all variables from wave 1, but also added a question about the reason for migration and current migration intentions (yes or no) to the variable list.

Lastly, the UK’s International Passenger Survey (IPS) includes information on the reason for migration, country of previous residence, usual occupation prior to migration, and immigrants’ previous stay in the UK, in addition to tracking short-term and tourism-related migration. However, it should be noted that in general passenger surveys may produce data with low levels of quality (Interview 1) and do not contain micro data on migrants.

Following this review of the main sources on data relevant for understanding intra-European migration, the next section discusses the quality and availability of statistics by thematic areas and outlines remaining gaps in the currently available body of data.

IV. Available statistics and remaining challenges by thematic areas of intra-EU migration

A. Migration flows within the European Union

Data on intra-European migration flows is, in theory, easily available through administrative records of migrants’ (de-)registrations (or other form of documentation) when they change their residency. Eurostat publishes this data (as forwarded by NSIs) in a comprehensive database with fairly well comparable numbers. However, the accuracy of these figures can be challenged for both EU citizens and third-country nationals.

In Eurostat data, the definition of immigration is consistently based on change of usual residence for at least 12 months (although minor differences continue to exist in whether this refers to the actual or the intended stay). A persisting source of heterogeneity regards the inclusion of asylum-seekers in migrant flow statistics (12 of the EU-28 countries include them, 16 do not) [Eurostat, "International Migration Statistics Reference..."].
Concerning EU nationals, the problem is that a number of intra-EU movements of EU citizens are undetected by administrative records. Registrations and de-registrations are often voluntary in nature, and EU citizens do not require permits to reside in another Member State. Some Member States – e.g. the UK and France – do not keep population registries to begin with. As mentioned in Section III. Main sources of data on intra-European emigrations in particular tend to be underreported because there are neither strict regulations nor benefits encouraging emigrants to de-register – as opposed to registering in a new country, which can be a prerequisite for opening a bank account, renting a house, or other basic aspects of settling in that country (Interview 3).\(^{53}\) This weakness of emigration statistics can somewhat be solved using mirror statistics, the quality of which depends then on the receiving countries. Differences in how the two types of flows are defined can further weaken the coherence of immigration and emigration flow data within and across Member States (Interview 1); this explains some of the availability gaps and highlights potential comparability problems when simple mirroring-based techniques are used to fill those gaps. For example, some countries may use the standard 12-month stay requirement for someone to be defined an immigrant in the new country, but simply measure emigration based on counts of de-registrations.\(^{54}\)

In the case of third-country nationals (TCNs), entry into the EU – through regular channels – is well-documented through residence permits (in addition to registers). The problem is differentiating between these external movements into the EU and subsequent internal movements that happen across Member States. The most efficient way to capture intra-EU migrations of TCNs would be through their country of previous residence, which is in fact recorded – for most countries – in Eurostat flow data (discussed further below). When this information is lacking, however, there is a risk of incorrectly assuming that the country of birth or citizenship is the starting point of the studied migration flow for TCNs. This can lead

---

\(^{53}\) Metadata in Euro SDMX Metadata Structure (ESMS)\(^{\text{\textsuperscript{\textregistered}}}\). Most countries base their data on registers and/or other administrative sources (e.g. censuses, residence permits), while a handful of countries rely on survey-based methods (often combined with census data) [ibid.]. Overall, the comparability of European data is still imperfect; however, the fact that these remaining differences and gaps are now fairly well documented can enable researchers to deal with them. For more details on Eurostat’s database, see the previous section (III).

\(^{54}\) As a side note, the (Eurostat) standard 12-month criterion is the reason why immigration flow statistics are published with a one-year “delay” compared to stocks (resulting, e.g., in 2016 flow data being available in 2018 (Interview 1)).
to an underestimation of TNC migration within the borders of the EU. The issue of imperfectly overlapping definitions and multiple disaggregation is further explained in Box 1 on page 41.

Reversed, this challenge in monitoring intra-EU flows also applies to EU nationals: being an EU citizen (or being born in a Member State) does not necessarily mean that the starting point of a person’s most recent move to the Member State was from within the EU. By categorising all arrivals of EU nationals to a Member State as intra-European flows, we run the risk of overestimating the number of EU-origin internal movers. Still, when information on the previous country of residence is missing, our best guess is that the migrant is moving from their country of citizenship (or birth) (see Box 1, page 41).

Keeping the above limitations in mind, the total numbers of inflows and outflows are thoroughly reported on the Eurostat database dating back to 2008, with only a few exceptions (e.g. data for one or a few years missing for specific countries). Besides total numbers, flows reported by Eurostat generally include the option to disaggregate by single country of birth, citizenship, and country of previous/next residence of immigrants and emigrants. However, as mentioned in Section II. The institutional framework and evolution of European migration data collection, while aggregated figures are mandatory and therefore widely available (starting 2013), single-country breakdowns (for all three definitions) are voluntary, and therefore not generally available. That said, the single country of citizenship breakdown is usually obtainable, as is the breakdown by country of birth. The most sparsely available definition seems to be that of previous residence: single-country breakdown is missing for nearly half of the 28 Member States. Conversations with experts have highlighted that this is likely due to the fact that several countries do not collect residence-based information (Interview 4).

---

55 For this reason, flow data based on issued residence permits – despite it including valuable information on reason for migration and length of validity – is of limited use when focusing on intra-EU movements.

56 For reference years prior to 2013, it is difficult to aggregate values even manually because of missing country-level data for multiple countries.

57 As of 2018, breakdowns by single country of citizenship or country of birth are missing for 8 Member States: Germany, Ireland, Greece, Cyprus, Latvia, Malta, Poland, and Portugal; breakdown by single country of previous residence is missing for Czech Republic, Germany, Greece, Ireland, France, Cyprus, Latvia, Luxembourg, Hungary, Malta, Poland, Portugal, and Romania.
As touched upon earlier, the lack of residence-based migration data is a severe limitation in tracking secondary movements within Europe. Furthermore, even in cases where the country of previous residence is available, it is not possible to further disaggregate this data by citizenship or country of birth, which prevents us from observing the composition of the migration corridors highlighted (e.g. share of third-country nationals vs. EU citizens). It should be acknowledged that, for most people, country of birth, citizenship, and/or country of previous residence are likely to coincide (Interview 2). Yet, until these options to disaggregate are available, it is difficult to make reliable assumptions about the relative relevance (or lack thereof) of subgroups of migrants based on the three definitions. A double disaggregation by nationality and country of birth simultaneously is available – but only for some countries, as it is also a voluntary indicator – if one of the two is categorised in a ‘broad group’ (such as ‘EU28 countries except reporting countries’). As explained above and in Box 1 on the following page, including at least this kind of option for disaggregation of flows between nationality and country of previous residence would be extremely useful in the future.

For some of the reference years/countries for which the above Eurostat data is missing, the OECD’s database on international migration contains complimentary data. While it does not include data for all Member States, partly due the fact that it operates with different definitions, it is able to provide single-country (citizenship or country of birth) disaggregation data for some of key reference countries missing from the Eurostat database, such as Germany. It is therefore a useful source to fill in key knowledge gaps. However, users should be aware of potential comparability issues (OECD’s detailed metadata files help with this). Flows are available by nationality (only foreign) or country of birth, including a disaggregation by sex (specifying women and total values). An added advantage of OECD data is that it is downloadable in both Excel and comma separated values format, helping large-scale analysis.

58 i.e., not adhering to the 12-month stay criterion to define migrants.
Box 1: The complexity of definitions in migration statistics

Different definitions used in migration statistics and the groups they delineate -

Why does the availability of double/triple disaggregation by different definitions in migration statistics matter?

The Venn diagram below illustrates how the different groups implicated in EU migration statistics relate to each other, including overlaps. Each of the three main definitions (black text) implicates four groups of migrants, depending on how they overlap with the other two definitions. The categories in white text indicate mutually exclusive groups.

Strictly speaking, statistics on ‘intra-EU movers’ should include the groups encompassed by the yellow circle: people moving from one EU country to another, including both EU nationals and non-EU nationals, born in the EU and not (II, III, V, VI). When we simply look at statistics of immigrants to an EU country who are EU citizens, we risk including EU nationals who are in fact moving from a third country at that point (I), and excluding non-EU citizens who are moving from another EU-country (V, VI); the same argument applies to the EU-born definition. However, the size of the different subgroups (i.e., how non-overlapping areas and different overlaps compare to each other) can only be assessed if we can disaggregate the same data by two (ideally, three) definitions at the same time.

Examples for each group

Imagine an immigrant to the Netherlands who:

(I) A person holding Italian citizenship, who is moving from Argentina, the country in which she was born.
(II) A person born in Turkey who has since acquired German citizenship and now decides to move to the Netherlands.
(III) A native Italian citizen moving from Italy to the Netherlands.
(IV) A native Italian citizen who has been living in the United States and now decides to move to the Netherlands.
(V) A native Mexican citizen who has been living in Spain and now decides to move to the Netherlands.
(VI) A son of Iraqi immigrants who was born in Hungary, has not been naturalized, and now decides to move from Hungary to the Netherlands.
(VII) A son of Iraqi immigrants who was born in Hungary, has since moved to Iraq, and now decides to move to the Netherlands.
In some cases, individual countries’ national statistical institutes (NSIs) also provide good complementary – or even overall better – statistics (e.g. Germany, United Kingdom – see Section III. Main sources of data on intra-European for more details).

Another noteworthy source for intra-EU migration flows is Abel and Sander’s 2014 paper and resulting interactive website,\(^{59}\) an impressive effort to estimate global migration flows between and within regions for five-year periods, from 1990 to 2010, using UN stock data.\(^{60}\)

A disaggregation of flows by age and sex is typically available in Eurostat data. In this dataset, a breakdown by sex is also available for all countries and years for which total flow figures are available. The availability of disaggregation by age, however, varies: it is entirely missing for Austria, Greece, Ireland, Romania, Slovenia, and the UK, and only available since 2013 for Croatia, Lithuania, Luxembourg, and Slovakia. In some cases, e.g. Austria, Ireland (see Section III), individual NSIs provide this data.

Further useful variables would include, for example, the reason for migration and the education and occupation background of incoming (and outgoing) individuals. Reason for migration is typically recorded in residence permits, but, as mentioned above, this source of data is not applicable for EU citizens. According to our review, the one major EU-wide dataset that does contains this information is the Labour Force Survey’s (LFS) 2014 (and 2008) ad-hoc module on labour migration.\(^{61}\) Although LFS provides stock data, it includes years of residence and the information can therefore be transformed into flow data for the calculated years of arrival. The availability of this variable is discussed in more detail in the next sub-section on migrant stocks.

Information on the education and labour market participation of migrants is available both in the core module of LFS and in Eurostat, but this data is generally collected to measure integration and thus refers to these characteristics at the time of the data collection, not at the time of migration. The same applies to a number of national databases as well. For

\(^{59}\) http://www.global-migration.info


\(^{61}\) Data from the 2009 Eurobarometer and the 2004 EIMSS survey also includes reason for migration, but this data is outdated and/or not representative at the EU level. National surveys NELLS (Netherlands) and SOEP (Germany) also collect this information.
example, the French and German NSIs record level of qualification and occupation, but again, at the time of data collection. Since these characteristics often change during the time spent in the host country, they cannot be accurately traced back using stock data and time of arrival.

One indirect way to calculate the education level of incoming (past) migrants — but this might only be applicable to a small number of observations — could be to use the variable *Year when the highest education was obtained* in the core module of LFS, which, cross-referenced the years of residence for migrant respondents, can reveal if the education was obtained before or after moving to the host country — and in the former case, was likely the level of education at the time of migration.

The one national-level survey that we found that includes information on migrants’ usual occupation prior to migration is the UK’s International Passenger Survey (IPS). The inclusion of questions regarding education and labour characteristics prior to migration in future migration-related EU-wide surveys would be a key step to identifying how bilateral migration patterns in Europe differ by skills and occupational status, including self-employment status.

**B. Stocks of intra-EU migrants**

Similarly to migrant flows, stocks of people who migrated from within the EU are reported alongside migrants arriving from third-countries in Eurostat’s database (via NSIs, based largely on administrative records). Stocks of foreign nationals and population born abroad may be disaggregated by age and sex, but disaggregation by nationality and country of birth simultaneously is only available if one of the two is categorised in a broad group (such as *EU28 countries except reporting countries*).

Statistics on the numbers of valid residence permits (and long-term residents) at a point in time also provide an additional insight into stocks of TCNs residing in Member States, with additional information on the reason of migration and the length of stay. When focusing on stocks resulting from intra-European movements, however, we again must keep in mind that this refers not to — and, furthermore, not to all — movements of EU nationals but rather
EU nationals and TCNs’ migrations from one Member State to another. In the case of stock data, this challenge is made more daunting by the fact that the countries of previous residence are not reported in Eurostat population data; Regulation 862/2007 requires Member States to record countries of previous residence for flow but not stock statistics.

Data from the Census 2011 (and consecutive) data should be more useful in this regard: Regulation 763/2008 on population and housing censuses requires Member States’ census data to include inhabitants’ previous place of usual residence and date of arrival in the current place; or place of usual residence one year prior to the census. Without exploring exactly what data was collected by each individual country, we rely on the ESS’ Census Hub database (the platform built to collect and distribute Census 2011 data across Europe), which includes variables for respondents’ years of arrival and for their ‘residence one year before’. The latter, however, only distinguishes between internal and international movements (or no movements) and therefore cannot be used to determine the previous country of residence. Furthermore, the usefulness of the platform is greatly hindered by the limited options of variables that can be chosen jointly. For this reason, in our research we found it easier to download the data through the standard Eurostat data explorer platform. Including information identifying the countries of previous residence in the census (or any other collection of other migration stock characteristics) would help researchers access a key tool to comprehensively monitor intra-European movements of both EU nationals and TCNs.

To our knowledge, the most useful complementary source for Eurostat migrant stock data is provided by UN DESA’s database on Trends in International Migrant Stocks. The database provides global bi-lateral stocks disaggregated by sex for every 5 years between 1990 and 2015, and, additionally, 2017. Most of the data is obtained from population censuses. The database has a global scope, but EU countries are easy to filter out among receiving countries, which are listed by region. Origin of immigrants is defined as either country of birth (predominantly) or citizenship, where these are used inconsistently across countries. In addition, there are discrepancies regarding the inclusion of refugees. This inconsistency of

Note that ‘Population and housing census’ category is separate from general population data; within this category, the Census 2011 sub-section has a separate ‘folder’ titled Population by migration characteristics.
definitions, in particular, significantly harms the precision of this data as a source for European migrant stocks.

Another complementary source is found in OECD’s International Migration Database. This data faces the same geographical limitations as mentioned in the case of flows (6 EU countries are excluded). For the 22 countries that are included, however, OECD reliably reports stocks of foreign-born and foreign population – distinguishing between definitions, unlike UN DESA’s stock data. Disaggregation by sex is also possible.

Given these limitations of current administrative data collections, an alternative way to identify intra-EU movers among migrant stocks is through surveys – keeping in mind the evident drawback of limited representativeness. Starting with the largest-scale survey, the core module of the LFS records the imperfect, but still useful, variable *Country of residence one year before survey* (possible to combine with the *years of residence* variable for the current country); however, the limited information contained in the LFS regarding country of nationality and country of birth should be kept in mind. EIMSS asked for all previous countries of residence; SOEP (Germany) also looks into past migrations in detail, as does wave 7 of the Understanding Society survey (UK). REFLEX and HEGESCO asked for the country of residence at age 16. An added benefit of these surveys is that they also allow for disaggregation by various demographic and socio-economic characteristics. The obvious drawback is the lack of a migrant oversample (for the standard LFS, REFLEX, and HEGESCO) and the resulting very limited – and hardly representative – migrant stocks that can be identified through these surveys.

**C. Statistics on selected aspects of intra-EU migration**

_i. Reasons driving migration within the EU_

Data on intra-European movers’ reasons for migration can play a key role in revealing the drivers behind the existence and prevalence of specific migration corridors within the EU; however, this information is currently not available at an EU level from administrative

---

63 The UK’s International Passenger Survey (IPS) also includes information on the previous country of residence, but given its nature, the IPS provides flow data and is included in Eurostat’s statistics, as it replaces national register data.
sources. Although the nature of migration is included — in good detail — in residence permit records, as mentioned earlier, this data only refers to third-country nationals, and does not contain a tool for identifying intra-EU movers among them.

Generally speaking, a key issue in capturing motivations in migration data is to differentiate between the legal pathway for migration (the legal criterion that provided the individual the right to settle, such as family reunification) and the actual motivation(s) of the individual (Interview 4). The two may differ, not only because the real reason might not be the bureaucratically most feasible option (although this is less of a factor for EU nationals, who do not need a legal reason to settle), but also because migration is a multifaceted decision often influenced by a variety of factors (which can also change over time). Yet, in order to accurately capture the complexity of motivations that led the migrant to choose a specific country (and/or leave another), the data collection tool — most likely a survey — would allow indication of multiple reasons, possibly ranked. Ideally, answer-options would include not only main categories (e.g. work) but also more specific subcategories (e.g. employment opportunities, salary, terms of employment etc.) to gain richer information on the drivers of migration.

The most representative recent source of data on reasons for migration is the 2014 ad-hoc module of the LFS (also worth noting the 2008 ad-hoc wave), which asks this specifically (Interview 3). A close runner-up is the 2009 special wave (72.5) of the Eurobarometer, which works with a much smaller sample than the LFS but has questions on both motivations and disincentives to work abroad, as well as related attitude questions. An important difference is that most of the incentives and disincentives targeted by Eurobarometer 72.5 refer to a hypothetical future migration, not a recent migration. Nonetheless, the most recent past migration is also captured, including its location and questions about the type of work performed during that migration. Additionally, interviewees are asked if they have ever studied abroad and/or commuted across borders (but destinations are not specified in this case). A weakness of both the LFS and the Eurobarometer is that they only have approximate ways to capture the country of previous residence (LFS: broad groups for

---

64 Including not only the reason for the immigrant receiving the permit (e.g. student, work, asylum), but additional breakdowns within these main reasons (such as sector of employment).
country of citizenship, birth, and residence one year prior, as well as last country of work abroad; Eurobarometer: citizenship, destination of last move, duration of that move). Therefore, they are imperfect for capturing the drivers of intra-EU migration specifically.

The EIMSS survey was well-designed for these purposes in that it identified not only the reason for settling in the destination country, but also the country of residence prior to migration. However, as mentioned in Section III, this data is only available for 2004 and for a handful of countries.

Among national statistical institutes, Italy, Greece and Netherlands record the reason for migration in their databases. Importantly, these databases are available online (except for the Netherlands, where previous authorisation is necessary) and are downloadable in English. The reason for migration is also available, albeit in census data only, in Croatia and Slovakia. Among national surveys, the SOEP (Germany), the UK Understanding Society Survey’s wave 7 (2014), and the UK International Passenger Survey contain information on both the reason for migration and the country of previous residence, while NELLS (Netherlands) only includes the former.

Our interview with a senior official from UN DESA (Interview 2) informed us that the lack of this information for EU nationals in lieu of residence permit data has also been picked up in the international statistics community. It is in fact a topic of on-going debate in the Global Compact for Migration, with some pushing for a recommendation concerning the collection of reason for migration data in censuses.

**Labour migration**

Focusing on European labour migration in particular, the most useful EU-level database to consult is undoubtedly the Labour Force Survey. The core questionnaire allows for identification of foreign citizens in the surveyed country while also asking detailed questions about their labour characteristics. While this is not strictly speaking labour migration in that it is not specified if labour was the motivation behind the move, it does give us some information on EU citizens working in other EU countries (keeping in mind the limited information on their countries of origin). The questionnaire also asks for the country or place of work, which, if different from country of residence, allows the identification of
cross-country commuters. The 2008 and 2014 ad-hoc modules are particularly relevant to assess the prominence of labour-motivated migration (together with the socio-demographic profile of these movers), since they ask about the reason for migration and the last country of work abroad.

The Eurobarometer’s 2009 special wave on Geographical and labour market mobility also contains useful information: it asks if the respondent has ever lived or worked abroad, and if yes (including if they are currently doing that), the location and duration of that migration; the type of work done while abroad (if any); how he or she found that job; and a variety of similar but also even more detailed questions regarding an intended future move for work purposes. As shown by these questions, this special wave has addressed some key questions related to labour migration within the EU, which were a highly useful supplement to the data provided by the LFS ad-hoc module (in fact, one might argue that it went into more depth than the LFS did). Repeating this special wave in the near future, in a post-recession context, would no doubt yield valuable data, in particular to understand current EU labour migration attitudes and intentions.

In terms of country-specific databases on EU labour migration, an example that stands out is Germany, specifically the Research Data Centre (FDZ) of the German Federal Employment Agency (BA). It has a variety of microdata originating from administrative registers and surveys with vast information on migration and labour market history variables.

**Student migration**

Statistics on tertiary student migration within Europe are available through two main sources: 1) the joint data collection effort of education data by UNESCO, OECD and Eurostat (UOE) for long-term (degree) migration; and 2) the database of the Erasmus student exchange programme for short-term mobility (one to two semesters).

Starting with UOE, the results regarding Europe (EU and European Economic Association (EEA)/EFTA) are shared on the Eurostat database. Following OECD practice, this collection of data distinguishes between resident foreign students (who are residents in the country as

---

a result of a prior migration) and non-resident, foreign mobile students, who came to the country explicitly to pursue an education programme.\textsuperscript{66} This helps capture the real volume of education-driven migration without confusing it with the enrolment statistics of non-naturalised migrant residents.

Until the reference year 2012, data is presented in separate datasets for mobile and foreign students. For both groups, disaggregation is available within country-level data by enrolled students’ level of education and their sex, field of education, origin, or destination (for emigrants). Note that the separation of these breakdowns does not allow researchers to disaggregate specific country-to-country flows by characteristics other than level of education. Mobile students’ data includes a dataset on graduates, but only by level of education and sex, not origin – which prevents the identification of migration corridors.

The data from 2013 onwards only refers to mobile students and graduates. For both groups, migration corridors (as defined by country of analysis and country of origin) can be broken down by education level and sex. This is an improvement compared to the earlier system, but it would still be useful to include a dataset that allows for disaggregation both by country of origin and field of education.\textsuperscript{67} The UOE datasets are therefore a reliable source of data on intra-EU migration of university students (as well as migration into and from the EU), covering all EU-28 countries with some exceptions.\textsuperscript{68}

Moving on to Erasmus data, migration statistics starting from the academic year 2008-2009 are available through the European Union Open Data Portal website. The shared data includes not only study exchanges but also work placements as well as teaching assignments and staff training. Raw microdata is freely available to download and includes the option to disaggregate by sending and receiving country, age, sex, grant, duration, subject area, level

\textsuperscript{66} OECD (2017), "Foreign / International Students Enrolled – Metadata".

\textsuperscript{67} The country of origin in the learning mobility data should, in principle, refer to the country of prior secondary education. Until the 2015 reference year, countries were allowed to use country of prior residence or citizenship or another concept instead of country of prior education. From the 2016 reference year onwards all countries are supposed to report data according to the country of prior education [Eurostat, "Education Administrative Data from 2013 Onwards (ISCED 2011)"].

\textsuperscript{68} Note: data for mobile students (by country of origin, 2013-2015) is missing for Greece; data for degree mobile graduates is missing for Greece, Spain, France, and Poland. Data for mobile students (by country of origin, 2008-2012) is missing completely for Czech Republic, Greece, France, and Italy.
of study, and other characteristics. It is therefore possible to use this data to identify and describe corridors of short-term student mobility across Europe.

Survey data from PISA and HEGESCO/REFLEX contains some additional information that might be useful for studying intra-European education migration. As discussed in Section III, PISA provides triennial stock data – although through a limited sample – on 15-year-old students born abroad, including how long they have been residing in the country. HEGESCO and REFLEX, on the other hand, provide data on the migration trajectories of former higher education graduates (5 years on), including their country of birth, country of residence at age 16, during higher education studies, country when first starting employment, and at the time of the surveys. The limitations of these datasets are that they are over a decade old and their migrant subsample is rather small.

Finally, as mentioned above, the 72.5 wave of Eurobarometer (2009) asks respondents if they have ever studied abroad, but without asking them to specify the location (nor an indication of time). Therefore, while these are retrospective education migration-related statistics about respondents who are certainly European residents, we cannot know if the indicated migration was intra-European.

**ii. Irregular migration**

Flows and stocks of undocumented migrants, by definition, tend to remain undetected in administrative records. Even when data collection is designed in a way that allows for the inclusion of unregistered inhabitants (e.g. censuses, non-register-based surveys), their irregular migrant status is unlikely to be recorded unless specifically asked for. Major collections of migrant stock and flow statistics such as Eurostat or OECD tend to exclude irregular migrants altogether from their enumerations, as do surveys that draw their sample using registers (e.g. SOEP, LFS in some countries); meanwhile, censuses and non-register-based surveys (such as PISA, or LFS in other countries) may include respondents with an irregular status, but they remain unidentified as such in the data.

It is important to note that the concept of irregular migration within the EU mostly applies to TCNs: while EU/EEA nationals are usually required to register their residence when moving to another country for more than three months, failing to do so may subject them
to a fine but not to expulsion.\textsuperscript{69} That said, there are limitations to the freedom of settlement, beyond which EU migrants may not be allowed stay (as highlighted during Interview 3). These limitations may include cases in which the migrants are unable to support themselves financially and/or are homeless. People who have criminal sentences may also be banned from residence in another Member State. According to one of the experts interviewed (Interview 3), the limits imposed on so-called poverty migration from Eastern Europe was quite a hot political topic in Germany, France, and the UK before the refugee crisis hit. This expert (Interview 3) also noted that this is an issue strongly related to ethnicity, concerned primarily with migration of Roma individuals. An interviewed International Organisation of Migration (IOM) official (Interview 4) also spoke of assisted voluntary returns taking place, particularly in the East-West corridors.

Nevertheless, the concept of irregular migrants in the European context is defined as “third-country nationals who do not fulfil, or no longer fulfil, the conditions of entry as set out in Article 5 of the Schengen Borders Code or other conditions for entry, stay or residence in that Member State”.\textsuperscript{70} There are multiple ways for third-country nationals to enter irregularity even if they fulfilled regulations when they first arrived to the EU. Examples include staying after their visa or residence permit has expired, becoming employed without a work permit, entering some non-Schengen countries without an EEA entry visa (only holding a visa/residence permit from a Schengen country) etc.\textsuperscript{71} Non-EU family members of EU nationals are often subject to different regulations, as are citizens of certain non-EU countries, which further complicates the task of monitoring irregularity of flows within Europe.

To our knowledge, the standardised EU data collection on irregular migration statistics focuses solely on non-EU citizens. Categorised under Enforcement of immigrant legislation, Eurostat provides statistics on TCNs who were refused entry at the external borders of the EU, found to be illegally present in the Member State’s territory, were subject to an obligation to leave the territory of Member States, or have left the Member State’s territory

\textsuperscript{69} Europa.eu (2019), "Registering Your Residence Abroad".
\textsuperscript{70} Sabbati and Poptcheva (2015), "Irregular Immigration in the EU: Facts and Figures".
\textsuperscript{71} For a detailed explanation, see Jandl, Vogel & Iglicka (2008) "Report on Methodological Issues", p.11.
for a third country. Asylum-seekers’ so-called Dublin returns (mentioned earlier) constitute a further small section of law enforcement statistics that concern specifically intra-EU movements.

Law enforcement statistics, however, only capture a fraction of the irregular immigrant population – namely, those who were “caught”. The CLANDESTINO Database on Irregular Migration aimed to bridge this gap by combining enforcement data with regularisation data, support service data, administrative data, expert, migrant, employer surveys, and other sources. This makes CLANDESTINO the most comprehensive existing database on irregular migration in Europe, to our knowledge. The database contains data and estimates from 12 EU countries, mostly from 2007 to 2009, but information is still uploaded occasionally. Besides figures and analysis, the project includes a quality classification assessing the reliability of each of its estimates.

In sum, the statistics available through Eurostat and CLANDESTINO are useful indicators of flows of TCNs with an irregular status into and out of the EU as well as stocks inside EU territory. However – even though they may include such cases – these statistics do not provide specific information on the intra-EU movements of migrants with an irregular status. Such information remains a data gap to be addressed. As recommended by interviewed experts, further data sources to be explored for this purpose include IOM’s records on assisted voluntary returns within the EU, as well as the European Asylum Dactyloscopy Database (Eurodac) figures (Interviews 2, 3, and 4).

iii. Monitoring lifetime/multiple migrations

Tracking lifetime migration trajectories – or even just multiple migrations – of EU residents with existing data is a major challenge we encountered in our mapping exercise. The relative lack of data on this dimension of intra-EU migration was confirmed by the interviewed experts (Interviews 1, 2, 3, and 4).

As discussed with regards to migrant stocks, it is often difficult to know even the migrant’s most recent previous country of residence, the only information on a country of origin being the migrant’s country of birth of citizenship. This is the case for migration data based on

---

72 AT, CZ, FR, DE, EL, HU, IT, NL, PL, SK, ES, UK.
population stock statistics, residence permits, and law enforcement data (as presented in the Eurostat database), as well as OECD stock and flow data and the PISA survey, to mention a few.

The German NSI represents a similar but slightly more informative practice in that it includes information on migrant status, age at the time of entry, duration of residence, citizenship and naturalisation status, as well as former citizenship.

A limited number of sources include the migrant’s country of previous (or next) residence, revealing the exact trajectory of one migration, at least. However, this type of source contains no information on other past migrations. In principle, this is the case for Eurostat’s flow statistics, although in reality this data is still missing for a significant number of countries. In a somewhat similar method, the 2014 ad-hoc module of LFS asks for the last country of work abroad (within the last 10 years), but without a question to specify when that migration took place or if other migrations not involving employment have taken place since. The 2009 special wave of the Eurobarometer (72.5) asks for the most recent migration, including the location and the length of stay, but contains no information on how long ago that was compared to the time of the survey. An outstanding country-specific example is Italy’s NSI, which records not only the previous place of usual residence, but also the residence one year prior as well as the residence five years prior. The UK (through its Passenger Survey) records country of last or next residence, along with previous main reason for migration.

Another group of datasets provides information on migration histories by asking for the country of residence one year prior to the time of data collection. This is better than no information, but is far from ideal in that it only tracks one, very recent, migration (for individuals or households residing in the destination country for no more than a year) and does not exclude the possibility that the migrant arrived to the present country from another country (which he or she moved to and away from within one year). Data on the country of residence one year prior is included in the core module of the LFS. Furthermore,  

73 In fact, the UN DESA expert interviewed as part of this project (Interview 2) stressed that the choice of timeframe is a common topic of debate, himself supporting the collection information on residence 5 years ago, as the one-year measure cuts off too large a part of the migrant population.
according to current regulations, EU censuses (i.e. Census 2011) are required to include data on either respondents’ previous place of residence (and date of arrival) or place of usual residence one year prior to the census. The former variable would clearly be more valuable to capture exact migration trajectories, but the Census Hub database only contains the latter variable and does not differentiate between individual countries (as mentioned previously). Individual country censuses, if accessible, may therefore contain useful information, but – whether collected or not – the current overarching database excludes this data. Some NSIs’ databases, such as France and Spain, also record residence one year prior to the time of data collection.

A similar method asks for the individual’s country of residence at a point in the past, not one, but multiple years prior, or alternatively, when the respondent was a specific age. Again, this type of data is useful in providing at least some information on the individual’s migration history, but it does not allow the researcher to map specific country-to-country trajectories since it leaves out potential migrations that happened between the years for which residency was recorded in the data. The likelihood of the data accurately capturing all migrations is higher when places of residence are asked for multiple life stages which are directly connected (or almost). HEGESCO and REFLEX, for instance, provide fairly good data in this regard as they ask about country of birth, country of residence at age 16, during higher education studies, when first starting employment, and at the time of the surveys (5 years following graduation). Unfortunately, the migrant subsample can be expected to be very limited within these surveys as they did not specifically target mobile individuals.

A notable example among data sources tracking lifetime or multiple migrations is the aforementioned special wave of the Eurobarometer (72.5), which asked detailed questions about a planned future move, including questions assessing the maturity/certainty of

---


75 It is also worth noting the opposite method applied in the UK Passenger Survey, which instead of asking about the respondents’ location at a specific time, asks to specify the year when he or she last moved to or away from the UK.

76 Note: Wave 3 and 7 of the UK Understanding Society Survey also address planned future migrations, although the latter wave does ask respondents to specify a destination.
these plans. This is valuable data in that it uniquely outlines future possible migrations while also containing information on past (and/or present) migratory behaviour of the individual.

In summary, the ideal system of data collection on lifetime migration is as thorough as possible; the best existing example we found in the European context is EIMSS, which tracks every other country the respondent has lived in, prior to migration to the current destination country, reasons for settlement, and future moving aspirations including retirement. The German SOEP is also very well-designed for these purposes, as it asks respondents to specify every single move (including dates) since birth, including potential moves away from and then back to Germany. Another outstanding national survey in this regard is the UK’s Understanding Society survey (Wave 1 & 7), which investigates all prior migrations in both native and migrant respondents’ lives (although it does not include all dates, only whether it was prior to or following any move to the UK). As also suggested by the UN DESA interviewee (Interview 2), the implementation of such surveys at the broader European level – or the inclusion of prior migration questions in existing EU-wide questionnaires such as the LFS – would provide important information on extended migration trajectories and the prevalence of multiple migrations over European inhabitants’ lifetimes, which is currently lacking.

**iv. Short-term migration, circular migration, and cross-border commuting**

Short-term migration – a change of residence to another country for a length between 3 and 12 months\(^7\) – is particularly difficult to track with existing European statistics. Residence permits do include information allowing the identification of short-term migrants among third-country nationals, but not to capture intra-EU movers among them. Naturally, short-term migrants are less incentivised – and not legally required – to register their residence. Passenger surveys seem to be the best available data source to observe the volume of short-term movements (as well as tourism) from specific European countries; unfortunately, to our knowledge, at this time only the UK and Cyprus carry out these types of surveys systematically.

\(^7\) OECD (2003), "OECD Glossary of Statistical Terms - Short-Term Migrant Definition".
Similarly, we struggle to find internationally available sources on circular migration within Europe. This challenge was thoroughly discussed in a recent report by the United Nations Economic Commission for Europe (UNECE) titled *Defining and Measuring Circular Migration*. The report describes definitional issues as well as a detailed review of potential sources that may be exploited to build circular migration statistics, using Italy and Sweden as in-depth examples; we recommend referring to this report for a comprehensive overview on the topic.

The availability of cross-border commuting data is slightly better, as the core module of the LFS includes a question on the country of place of work (which can be compared with country of residence). Additionally, the special wave (72.5) of the 2009 Eurobarometer, asks whether the respondent commutes to work in another country, the frequency of the commute, and further questions about hypothetical or intended international work commutes. A major shortfall of this data is, however, that the destination of the commute is not identified. Furthermore, both for the LFS and the Eurobarometer, we may expect a small sample of cross-border commuters as they are not specifically targeted.

It should also be mentioned that censuses are a potential data source for information on cross-border workers. By comparing the place of residence and the place of work, it is possible to account for those working in a country other than that of residence (Interview 1). An additional recommendation by one of our interviewees is that in order to capture seasonal and/or cross-border workers – feasible primarily for sector and country-specific studies – the records of people registered in the profession are a viable option (Interview 3); another expert added insurance records and home ownership records (e.g. for summer homes) as a potential source on seasonal/circular movements (Interview 4). The interviewed UN DESA expert questioned the necessity of such data being collected at the administrative level and aggregated at the EU level, but recommended carrying out specialised surveys in cases where indeed there is an interest in capturing non-linear and/or short-term migration (Interview 2). The Eurostat expert interviewed (Interview 1) also shared that the Conference of European Statisticians (CES) has endorsed the definition of...

---

78 UNECE (2016), "Defining and Measuring Circular Migration".
circular migration put forth by the UNECE report mentioned above, and that Eurostat might start sharing information on circular migrants starting 2019.

A lack of data on return migration also came up during the interviews, a shortfall attributed to the low quality of emigration data (Interview 4). As highlighted by the interviewed IOM expert, a fraction of return movements may be captured by IOM records on assisted voluntary returns (Interview 4). This expert also stressed the importance of including not only a question about return in future large-scale surveys on migration (e.g. the LFS), but also to include a question asking about the reason for return.

Before moving on to conclusions and recommendations, Table 1 on the next two pages summarises the main sources we identified in our review of available data, split by main and complementary sources. The table serves as a brief overview of the data sources and limitations discussed throughout this report, but it cannot replace the depth and accuracy of the analysis. Therefore, please refer to the text in the respective section for the more detailed information.
Table 1: Summary of major sources and data gaps for selected aspects of intra-EU migration

<table>
<thead>
<tr>
<th>Area</th>
<th>Main source</th>
<th>Complementary sources</th>
<th>Gaps in knowledge</th>
</tr>
</thead>
<tbody>
<tr>
<td>Migration flows</td>
<td>Eurostat population data (migr_immi; migr_emi)</td>
<td>OECD</td>
<td>Partial gaps: detailed origin country breakdown (esp. for previous residence).</td>
</tr>
<tr>
<td></td>
<td></td>
<td>UN DESA</td>
<td>No double-disaggregation by previous residence and citizenship/country of birth</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Abel &amp; Sander (2014)</td>
<td>(disaggregation by citizenship &amp; country of birth also in limited availability).</td>
</tr>
<tr>
<td></td>
<td></td>
<td>OECD</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>LFS, LFS 2008 &amp; 2014 AHM</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>EIMSS (2004)</td>
<td></td>
</tr>
<tr>
<td>Migrant stocks</td>
<td>Eurostat population data (demo_pop)</td>
<td>UN DESA</td>
<td>No comprehensive data on previous residence.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Census 2011 (Eurostat)</td>
<td>Limited availability of double-disaggregation of citizenship and country of birth.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>OECD</td>
<td>No double-disaggregation by previous residence and citizenship/country of birth</td>
</tr>
<tr>
<td></td>
<td></td>
<td>LFS, LFS 2008 &amp; 2014 AHM</td>
<td>(disaggregation by citizenship &amp; country of birth also in limited availability).</td>
</tr>
<tr>
<td></td>
<td></td>
<td>EIMSS (2004)</td>
<td></td>
</tr>
<tr>
<td>Reason for migration</td>
<td>LFS 2014 AHM</td>
<td>Eurobarometer 72.5</td>
<td>No administrative data collected for EU nationals.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>EIMSS (2004)</td>
<td>Challenge to differentiate between legal pathway or &quot;official&quot; reason for migration</td>
</tr>
<tr>
<td></td>
<td></td>
<td>UK only: International Passenger Survey (IPS); Understanding society (w7)</td>
<td>and &quot;real&quot; reason(s).</td>
</tr>
<tr>
<td></td>
<td></td>
<td>DE only: SOEP</td>
<td>Current surveys tend to capture main reason, usually indicated in a broad category</td>
</tr>
<tr>
<td></td>
<td></td>
<td>NSI data: IT, EL, NL</td>
<td>(e.g. labour). Multiple and more specific answer options are rarely available.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Further gaps: data on reasons for emigration (push factors) and reasons for return.</td>
</tr>
<tr>
<td>Labour migration</td>
<td>LFS</td>
<td>LFS 2014 AHM</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Eurobarometer 72.5</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>NSI data: DE</td>
<td></td>
</tr>
<tr>
<td>Student migration</td>
<td>Eurostat Student migration data (UOE: educ_mo)</td>
<td>Erasmus data (short-term)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>PISA (15-year-olds only)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>HEGESCO/REFLEX</td>
<td></td>
</tr>
</tbody>
</table>

(Table 1 continued)
<table>
<thead>
<tr>
<th>Area</th>
<th>Main source</th>
<th>Complementary sources</th>
<th>Gaps in knowledge</th>
</tr>
</thead>
<tbody>
<tr>
<td>Irregular migration</td>
<td>-</td>
<td>Clandestino</td>
<td>Definition of &quot;irregular&quot; migrant tied to TCN status, the ways in which EU nations</td>
</tr>
<tr>
<td></td>
<td></td>
<td>IOM (AVRs)</td>
<td>can perform irregular settlement/movements within Europe are different and not/scarcely recorded.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Eurostat data on Dublin transfers</td>
<td></td>
</tr>
<tr>
<td>Migration history, secondary migration</td>
<td>-</td>
<td>LFS</td>
<td>Very limited data available, especially on extended migration trajectories (multiple migrations over the lifetime).</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Eurobarometer 72.5</td>
<td>Available data may capture residence 1 or 5 years ago, most recent previous residence, or residence at a specific age. Longitudinal information is very rare.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>EIMSS</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>UK only: IPS; Understanding society (w1,3,7)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>DE only: SOEP</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>NSI data: DE, FR, ES</td>
<td></td>
</tr>
<tr>
<td>Short-term, circular migration, cross-border commuting</td>
<td>-</td>
<td>Students only: Erasmus data</td>
<td>No comprehensive data collection.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>UK only: IPS</td>
<td>Lack of standard, widely used definitions.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>LFS</td>
<td>While surveys occasionally cover some of these variables (e.g. commuting), data is limited by the lack of an oversample.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Eurobarometer 72.5</td>
<td>Gap in return data affects knowledge on circular migration.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Potential sources: national labour registries; insurance records; (summer) home ownership</td>
<td></td>
</tr>
</tbody>
</table>
Conclusion and recommendations

The state of data on migration and mobility within the European Union has seen monumental improvements over the course of the past two decades. As a result of sustained efforts on the part of national statistical institutes and Eurostat (along with other international organisations), the European Union, generally speaking, now has some of the world’s highest-quality regional population and migration statistics. The introduction of Regulations (EC) No 862/2007, (EU) No 351/2010, and (EU) No 1260/2013, in particular, has contributed to the improvement of harmonised and reliable migration data for all 28 EU countries, easily accessible in the online Eurostat database. That being said, intra-EU migration seems to receive less attention in European statistics than immigration from outside the EU. On the one hand, this is naturally explained by the lack of administrative obstacles (and resulting lack of a paper trail) associated with the freedom of movement within the territory of the EU. On the other hand, the political salience of the topic also influences the quality of its statistics; and while specific movements (e.g. East-to-West EU migration corridors) have indeed become the topic of heated public debates, generally speaking, recent years’ dominant migration-focused debates have centred around the arrivals of (forced) migrants from the Global South (Interview 3).

As a first step towards the improvement of internal migration statistics, we set out to map what existing data can, and importantly, what it cannot tell us about these movements. In line with this effort, this paper aimed to provide a discussion and overview of the main databases available to understand migration within the European Union. Following some key questions of interest, we mapped existing data sources and evaluated their usefulness and quality in supporting intra-EU migration research. In addition to a thorough desk review of sources, we complemented our findings with insights from interviews with experts in European (and global) migration statistics.

Our initial overview of the different types of data sources (e.g., administrative registers versus surveys) was greatly aided by previous similar comprehensive reviews borne by projects such as THESIM and PROMINSTAT. Guided by the criteria outlined by these

80 Kraler and Reichel (2010).
works as well as our own research priorities and experiences, we identified the best – most comprehensive and practical in use – databases. Accordingly, for each aspect of EU migration, we highlighted one main data source, followed by some other sources that can best complement the gaps left by the main data (no single data source we found was exhaustive). The Eurostat database, the Labour Force Survey (both core and 2008/2014 ad-hoc modules), the migration databases of UN DESA and OECD, as well as the EIMSS survey and the special wave 72.5 of the Eurobarometer, were among the most useful sources we identified. Besides presenting these main sources, however, an equally critical objective of our exercise was to shed light on the remaining challenges and limitations of measuring intra-EU migration. Below we recapitulate our main conclusions and recommendations for policy-makers and statisticians, as well as some suggestions for future research.

A. Summary: key gaps in intra-EU migration statistics

We begin with the remaining key gaps identified during the desk review, followed by the priorities outlined by the experts interviewed in the framework of this study. Overall, we find that the primary challenge in finding data on intra-EU migration relates to identifying the part of EU-related migration that truly takes place within the territory of the EU, excluding external movements of EU nationals but including internal movements of third-country nationals. For recent reference years, data on the citizenship and/or country of birth of migrants is usually available, but there are significant gaps in migration data disaggregated by single countries of residence prior to migration; most data sources either do not seem to be interested in the country of departure and/or seem to be willing to assume that it is the same one as the country of citizenship or birth. This makes it very difficult to accurately identify migration corridors within Europe both for EU and third-country nationals. Higher rates of compliance with existing EU requirements to collect information on residents’ previous/next country of residence for migration flow statistics on behalf of Member States would be a major step towards filling this gap. Additionally, the inclusion of a question regarding country of previous residence in either the LFS core module or at least its upcoming ad-hoc module on labour migrants would be key to gain this information as it relates to existing migrant stocks.

---

81 See also Table 1
Furthermore, a significant obstacle to intra-EU migration research is the lack of disaggregation options available for information regarding origin of the migrants (e.g. residence and citizenship). Having this information could be key for detailed analyses to understand who is moving from which Member State to which other Member State. This would allow for key developments in the measurement of intra-EU migration, such as comprehensive figures on the volume of return migration, not to mention figures on the relative share of EU vs. non-EU nationals moving within the EU.

Next, surprisingly little is known about the reasons driving intra-EU movements. In lieu of residence permit-based administrative data on this, most of what we know is based on surveys. As discussed in detail in Deliverable 3.1 of the REMINDER project, *Determinants of migration flows within the EU*, past surveys have had a strong focus on labour migration in particular, overlooking important other streams. The 2014 ad-hoc module of the LFS has been a major development in this regard – especially the possibility to select multiple options – but the depth of this still limited. Firstly, to our knowledge this data has not been exploited to explore motivations of intra-EU movers in particular. Second, little remains known about drivers relating to specific bilateral corridors and return movements; finally, commonly used broad categories such as labour or lifestyle, while better than no information, severely limit the depth of our understanding regarding the factors driving EU migration.\(^{82}\)

Another key challenge to in-depth studies on intra-EU migration is the lack of information on lifetime migration (or at least multiple migrations) of intra-EU movers. This information could probably be best gathered by repeating and extending the EIMSS survey (conducted in 2004), which covered all previous migrations of respondents. A repetition of the 72.5 special wave of the Eurobarometer conducted in 2009 would also undoubtedly yield some valuable data in this regard.

Further themes on which there is limited or no data available in the intra-EU context include irregular migration, short-term migration, cross-border commuting, and circular migration. In addition to these, acquiring more background information on migrants,

\(^{82}\) Work Package 3 of the REMINDER project aims to further analyse the complexities in the determinants of intra-EU migration. For more information please see: [https://www.reminder-project.eu/publications/work-packages/wp3-determinants-of-migration/](https://www.reminder-project.eu/publications/work-packages/wp3-determinants-of-migration/)
especially data on their skills, occupation and other socio-economic characteristics at the time of migration could help researchers gain a better understanding of which EU residents are moving to which Member State. This could in turn help policy-makers understand drivers, predict effects, and anticipate needs of new inhabitants.

**B. Recommendations for policy-makers and lead statisticians**

As underlined by interviewed experts, given the high volume of effort and cost involved with improving, changing and producing additional population and migration data (often in an environment of limited resources), outlining priorities is key. In line with the above gaps – combined with the priorities outlined by interviewed experts (Interviews 1, 2, 3, and 4) – we bring the following recommendations to the attention of policy-makers and lead statisticians:

1. Improve quality and consistency of administrative flow data:
   - Fill in major gaps for countries (e.g. UK, France) that still do not have a regular source for flow data and details by country of origin and destination;
   - Collect and share detailed previous/next residence based data; in most cases, this could easily be done simultaneously with the collection of information on citizenship and country of birth; and
   - Share double (or even triple) disaggregation of migration flow data by at least broad groups of previous residence, citizenship, and country of birth.

2. Introduce regular, EU-wide surveys to better understand internal movements. These could be realised via passenger surveys and/or by the inclusion of relevant items (with appropriate samples) into existing surveys such as the LFS; useful items would include:
   - Drivers of migration (multiple reasons possible; broad and detailed categories; rank reasons);
   - Background characteristics of movers (at the time of migration), such as: sex, age, skills, occupation, socio-economic characteristics;
   - Length of stay and future plans for migration;
   - Cross-border commuting and circular/seasonal movements;
   - Past migration experiences within the EU; and
o Impacts of migration (how migration to another Member State has impacted the life of the mover).

3. Work further towards improving the comparability of population and migration data by implementing internationally recommended definitions and methods:
   o Develop a common definition of intra-EU migration; and
   o Where harmonised information is missing, work with the best available approximate data in the meantime to minimise gaps and waste of useful existing data (ensure to note methodological differences).

As an additional note – as highlighted by the data expert of Interview 3 – the improvement of intra-EU migration data necessitates a shift in our understanding of the phenomenon: both in academic and policy debates, intra-European movement continues to be caught in a static view of migration as a one-time, long-term, linear process. In reality, the region’s extraordinary liberty of movement and settlement allows a massive turnover of people, involving temporary, circular, return, seasonal movements, as well as migration trajectories spanning multiple countries across a lifetime. In order to capture the reality of European migration, involved parties must move past traditional static approaches and seek to appreciate its dynamic nature.

A number of new and upcoming initiatives and debates within the international statistical community give reason for optimism in achieving the above goals (Interviews 1, 2, 3). The Eurostat expert interviewed as part of this study highlighted an on-going effort to redesign the architecture of population statistics, including migration statistics, after the 2021 census (Interview 1). Among other things, main developments in the international statistical community may include a new population definition (the concept of residence might change), inclusion of the reason for migration question in the census (although this is still a non-core topic in the UNECE Recommendations for the 2020 Censuses of Population and Housing), and the possible incorporation of new data sources (such as big data) (Interviews 1, 2).

We may also expect new upcoming data on circular migration to be available on Eurostat as soon as 2019 (provided they are transmitted on voluntary basis by the national statistical offices), following further developments by Eurostat of the technical specifications concerning this specific form of migration. Furthermore, there is a wider call for a global
migration survey, endorsed by a number of prominent migration researchers. Concerning the UN Recommendations on International Migration Statistics, the UN Expert Group on Migration Statistics is currently trying to review the latest edition (Interview 1). Speaking of surveys, we also learned that the core module of the LFS is soon expected to include items from the migration-focussed 2014 ad-hoc module, such as the question regarding reasons for migration (Interview 3). This is an important step ahead, although without an oversample of migrant respondents, the results may not be significant for all countries.

All in all, internal migration is a fundamental aspect of life within the European Union. The accurate monitoring of these movements is imperative if Member States want to accurately understand its drivers as well as its social, fiscal, labour market and broader economic effects. The European Union has some of the best quality population statistics in the world (Interview 1, 2). Therefore, the accurate measurement of movements happening within its internal borders is a goal well worth pursuing, and one that should not be out of reach.

**C. Recommendations for future research**

We conclude our report with some recommendations on further topics and potential datasets to explore to enrich the body of research on intra-European migration and mobility. Our suggestions are as follows:

1. Increase the volume of research on:
   a. Reasons for migration within Europe;
      i. Existing 2014 LFS AHM data has not been used for this purpose yet;
   b. Cross-border commuting, and circular migration; and
   c. Extended migration trajectories / lifetime migration within Europe.

2. Extend the focus of research from EU28 to all EFTA countries.

3. Potential data sources to look into:
   a. Stock of migrants;
      i. Data from European Health Interviews survey;
   b. Cross-border/circular/short-term/seasonal mobility;
      i. Records from labour registries/chamber of commerce;
      ii. Insurance records; social security data;
      iii. Home ownership records (e.g. holiday homes);
c. Irregular migration;
   i. Eurodac data & Dublin statistics;
   ii. National police records, records of EU nationals working on the black market;
   iii. IOM data on trafficking and migrants gone missing in a Member State while trying to reach another; and
   iv. (Potentially) unpublished NSI data on the undocumented population, used for background calculations.


## Annex

### Annex I – List of interviewed experts

<table>
<thead>
<tr>
<th>Interview Number</th>
<th>Name</th>
<th>Relevant expertise</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Giampaolo Lanzieri</td>
<td>Senior Eurostat staff member involved in data production and projections related to demography and migration.</td>
</tr>
<tr>
<td>2</td>
<td>Bela Hovy</td>
<td>Chief of the Migration Section within the Population Division at the United Nations Department of Economic and Social Affairs (UN DESA). Dr. Hovy is currently involved with UN DESA production of global migrant stocks and flows, as well as high-level discussions on migration matters (including data) in the international community. In the past, Dr. Hovy was also involved in UNHCR's estimation of asylum-related migration figures in Europe.</td>
</tr>
<tr>
<td>3</td>
<td>Albert Kraler</td>
<td>Senior Research Officer at the International Centre for Migration Policy and Development (ICMPD). Dr. Kraler was involved in all three major projects to date that have aimed to map European migration data: COMPSTAT (Comparing National Data Sources in the Field of Migration and Integration, 2001-2002), THESIM (Towards Harmonised European Statistics on International Migration, 2004- 2005), and PROMINSTAT (Promoting Comparative Quantitative Research in the Field of Migration and Integration in Europe, 2007-2009, building on COMPSTAT).</td>
</tr>
<tr>
<td>4</td>
<td>Jasper Tjaden</td>
<td>Data and Survey Officer at the Global Migration Data Analysis Centre (GMDAC) of IOM – UN Migration Agency in Berlin. Prior to his current position at IOM, Dr. Tjaden has also worked for the UK Home Office in London and the Migration Policy Group in Brussels.</td>
</tr>
<tr>
<td>5</td>
<td>Gunter Brückner &amp; Claire Grobecker</td>
<td>Dr. Brückner: Head of Unit, Immigration and Integration; Dr. Grobecker: expert in migration statistics for DESTATIS (Germany's Federal Statistical Office).</td>
</tr>
</tbody>
</table>

**Notes:** Further academics and practitioners were contacted for interviews, but declined to participate or did not respond. As the goal of the interviews was to complement the desk review, further recruitment of interviewees was stopped once satisfactory information was gained on key questions that arose during the desk review, and saturation was reached (i.e. more overlapping than new information shared on key topics). Interviews were conducted via phone or Skype calls, following a semi-structured format, and lasted about one hour each.
Annex II – General list of questions for expert interviews (simplified)

1. Could you briefly explain your expertise and involvement with migration data in general and intra-European migration data in particular?

2. If they work for an organisation involved with data: Could you list the relevant data that your organisation collects or publishes?
   a. What are the pros and cons of this data?
   b. How would you improve it?

3. Generally speaking, what did you find to be the main setback(s) in existing statistics on intra-European movements? (If needed, suggest: availability, quality)
   a. What do you think is the reason for these problems?
   b. Do you believe there are important data gaps?
   c. What do you think could be a solution for this?

4. Adding to what you mentioned, other important gaps we identified include [...]. [For each:]
   a. What do you think is the reason for these problems?
   b. Do you believe there are important data gaps?
   c. What do you think could be a solution for this?

5. In summary, what do you think are the three key gaps or shortcomings in European migration data – the top priorities – that should be addressed?

6. Could you summarise three (or more) recommendations you would give to institutions or policy-makers able to influence data collection and/or sharing?

7. Thank you for taking the time to share your thoughts with us. Do you have any other thoughts or insights that you would like to share?
The REMINDER project is exploring the economic, social, institutional and policy factors that have shaped the impacts of free movement in the EU and public debates about it.

The project is coordinated from COMPAS and includes participation from 14 consortium partners in 9 countries across Europe.