Population estimates and migration in Israel: challenges in the integration of multiple data sources and various types of migrants.

Note by Israeli Central Bureau of Statistics and the Israeli Population and Immigration Authority*

Abstract

The border control system is the main source of data in Israel on international migration. The registration covered almost all arrivals and departures records because Israel only allows access through one of the regulated border crossings. The visa granted upon arrival in Israel is the basis for measuring current immigration flows. This strategy ignores the possibility that arrivals to Israel might modify their visas and register in an additional database. After entering Israel, the visa's status may switch between the three main groups: permanent status, temporary status, and long-stay status. There is a mismatch between the various sources since each status type is in a different data source. Multi-counting of immigrants could happen as a result of this difference and this might automatically result in a fictive rise in the number of immigrants overall.

Studying all the procedures for registering immigrants in Israel and changing status is necessary in order to address this issue. Additionally, all the databases related to these records need to be studied and accessed. The details of the migrants (names and passport numbers) may vary between the various databases, which makes it more challenging to link data.

This paper's aims are to outline the challenges and suggest solutions, as well as to highlight Israel's significant progress in migration statistics.

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NOTE: The designations employed in this document do not imply the expression of any opinion whatsoever on the part of the Secretariat of the United Nations concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries.
I. Introduction

1. Despite the fact that there was data on the foreign population, Israel's population estimates since the 2008 census have not taken it into account. The Central Bureau of Statistics (CBS) only prepared national estimates without the ability to provide local estimates, which is one of the main causes of this neglect. The second major cause is the foreigners' data, which only covered a part of the foreigners who had lived in Israel for a long term. Foreigners are people who reside in Israel at their usual residence but are not registered in the population registry.

2. In recent years, local data on foreigners has become more necessary for users and decision-makers. At the same time, it became necessary to treat every foreign group. As a result, starting with the census of 2022, a strategic decision was taken to include foreigners in the population estimations. This choice necessitates the collection of new data that will allow for the tracking of all foreigners' related changes from the moment they arrive in Israel until they depart.

3. The current foreigner estimate that conducted until 2020 is solely based on visa data from the border control system's registration of arrivals and departures from Israel. The Population and Immigration Authority (PIBA), which is in charge of implementing Israel's immigration policy and, as a result, also of foreigner registration, is in charge of the border control system (BCS). The BCS excludes data about the foreigner's address, changes to the foreigner's status while they are in Israel, and demographic changes.

4. Additionally, only three population groups that are frequently discussed in public debate were covered by the current data: foreigners with work permits, migrant workers without a permit (overstay foreigners) and infiltrators and asylum seekers (see table 1 below). The total number of foreigners residing in Israel cannot be determined because the CBS disregarded certain categories of foreigners, such as student populations.

5. Unlike the National Population Registry, which is governed by law, the management of information on the foreign population in Israel is not. Additionally, the administrative data collected for PIBA's work does not include all the fields of data found in the Population Registry, such as a foreigner's address. The data includes information about the rules governing foreigners' stays in Israel.

6. At 2019 PIBA and CBS signed a Memorandum of Understanding (MU) for their cooperation within the framework of the national statistical system. A cooperation team was formed to study the needs and find new data sources within PIBA in order to improve the data on foreigners in Israel. By looking at these sources and transferring them to the CBS to produce the estimates, one can find new data sources. The CBS was able to generate estimates of foreigners based on all foreigner groups and location of residence using these new data sources. The new estimates increased the foreigners' areas of concern and allowed for more accurate and consistent estimations.

The data in Table 1 below compares the current situation to the new situation and shows the differences between the two estimates for 2020.

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1 Foreigners are individuals who reside in Israel on a usual resident basis but are not registered in the population register.
II. Foreigners and population counts

7. Israeli population is defined on the basis of the permanent (de jure) population, and consists of permanent residents - Israeli citizens and permanent residents without Israeli citizenship (including those who had been out of the country less than one year at the time of the estimate).

Until 2008, tourists and temporary residents residing in Israel for more than one year (excluding diplomats and UN personnel) were included in the population counts. The population counts include persons listed in the Population Register only. Persons not listed in the Population Register are not included in the population estimates, even if they had been staying in Israel for more than one year. The population estimates also do not include foreign workers. That population was estimated at about 166,000 persons at the end of 2017, some of whom had been staying in Israel for more than a year. In addition, the population estimates do not include those who entered the country without a visa and did not arrive through recognized border checkpoints. The population will include foreigners whose usual residence is Israel starting in 2022.

8. There are three distinct populations that exist in Israel at the reference day of the population estimates:
   a) **Israeli Permanent Population** (IPP): it includes all those listed in the population registration and their usual place of residence in Israel (including Israelis who have been abroad for less than a year; it does not include emigrants).
   b) **Temporary foreigners for long term stay** (TFL): includes foreign citizens who have long-term residence permits in Israel or foreign citizens who do not have such permits but continue to reside there illegally.
   c) **Temporary foreigners for short term stay** (TFS): mostly include tourists.

According to the concept of the permanent population, the usual place of residence of IPP and TFL is Israel. Our focus in this paper is TFL population.

9. Two major challenges should be overcome in order to include TFL population in the population counts:
   a) **Ability to track changes in status and demographic characteristics**: It is now possible to follow the TFL's flows of change thanks to new data sources. They contain data on births, deaths, departure Israel, and address changes as well as data on a change in resident status (such as a group transition from TFS to TFL or from TFS to IPP)2.
   b) **Figure out the usual residence address in Israel**: The new administrative sources show an address for 75% of the TFL population. Between the various groups of TFL, there are differences in the address's source and

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2 The lack of a single-valued ID number that enables linking records across different sources is one of the difficulties. The primary causes of the deficiency include incorrectly registering passport numbers and/or names and changing passport numbers and/or names. This obstacle was overcome by constructing a probabilistic record link utilizing soundex methods.
percentage of coverage (see below).
We will need to impute a usual resident address for the remaining 25%.

The various foreign groups that are present in Israel will be discussed in the parts that follow, along with each group's specific residence requirements in Israel and sources for addresses.

III. Groups of Temporary foreigners for long term stay in Israel

10. Foreigners who have been granted long-time permission to reside in Israel are considered TFL foreigners. Most foreigners are granted an in-principle permit for up to 5 years as long as they renew their visas annually. According to Israel's immigration policy, foreigners are supposed to depart Israel and are not permitted to settle there permanently. Unless cases of family formation, family reunification and humanitarian situations. If a foreigner is granted a permanent residency permit, he is listed as an Israeli resident in the population registry.

11. Foreigners are frequently permitted to remain in Israel for a long period of time for reasons related to work, study, the clergy, volunteer work, and humanitarian causes. The permit is usually generated before they travel to Israel, although sometimes they obtain it when they are already there. The primary categories of foreigners having long-term resident permits are shown in table 1 and explanations below.
### Table 1
Total number of foreigners by groups of Temporary foreigners for long term stay in Israel, 2020

<table>
<thead>
<tr>
<th>Mane Group</th>
<th>Sub-Group</th>
<th>Total foreigners in current estimates</th>
<th>Total foreigners in the new estimates</th>
<th>percentage of addresses that are known</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td></td>
<td>181,000</td>
<td></td>
<td>75%</td>
</tr>
<tr>
<td>Work Permit</td>
<td>Total</td>
<td>116,000</td>
<td>89,000</td>
<td>92%</td>
</tr>
<tr>
<td></td>
<td>Construction</td>
<td></td>
<td>13,000</td>
<td>96%</td>
</tr>
<tr>
<td></td>
<td>Agriculture</td>
<td></td>
<td>19,000</td>
<td>85%</td>
</tr>
<tr>
<td></td>
<td>Caregiving</td>
<td></td>
<td>53,000</td>
<td>99%</td>
</tr>
<tr>
<td></td>
<td>Experts and academic workers</td>
<td></td>
<td>3,000</td>
<td>0%</td>
</tr>
<tr>
<td>Students</td>
<td>Total</td>
<td></td>
<td>44,000</td>
<td>99%</td>
</tr>
<tr>
<td></td>
<td>Jewish students in religious studies</td>
<td>22,000</td>
<td>22,000</td>
<td>97%</td>
</tr>
<tr>
<td></td>
<td>Academy students</td>
<td></td>
<td>22,000</td>
<td>100%</td>
</tr>
<tr>
<td>Asylum seekers and Infiltrators³</td>
<td>30,000</td>
<td>37,000</td>
<td>99%</td>
<td></td>
</tr>
<tr>
<td>Others (Clergy, volunteers and companions)</td>
<td>11,000</td>
<td>0%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1. **Work permit**

12. About half of the TFL foreigners in Israel are there for employment. The goal of Israel's immigration policy is to fill certain quotas in the four main economic sectors of construction, agriculture, caregiving, and specialization. The Population Authority supports putting this

³ In the current estimates, the figures excluded there children who born in Israel.
concept into practice. The government establishes an annual quota for construction and agriculture economic sectors.

13. Foreign workers are absorbed and brought to Israel through private intermediaries, such as manpower companies, corporations, and foreign companies. These middlemen are in charge of both transporting the foreign worker to Israel and matching him with an employer.

14. Foreign workers are accomplished by binding the employee to economic sector and to his employer. This means that the economic sector and the employer's information are included in the work permit, and the foreign worker is prohibited from changing employers or economic sector without first gaining permission from PIBA.

15. PIBA is in charge of accepting applications for foreign workers and of implementing laws governing their employment. Because of this PIBA maintain databases with a wealth of information about working foreigners from the moment they arrive in Israel until the day they leave. The CBS can track foreigners' changes and create statistics at a respectable level thanks to this data.

16. The addresses of the employees are also included in PIBA. In order to get the workers' addresses, PIBA is getting in touch with middlemen in the construction sector. The address of the caregivers will be the address of the patient who employs them because they live together.

17. Even though we are aware of the address of the farmer that employs them, the agricultural employees may not always reside at that location. We use agricultural census data, which makes it possible to determine if agricultural workers reside with their employer, to predict the addresses of the workers in the agriculture sector.

2. Jewish students in religious studies (YISHIVA)

18. About 12% of TFL foreigners in Israel are Jews student who study in ultraorthodox religious institutes. Jewish students and their families are permitted to relocate to Israel in accordance with the Law of Return, and they will be granted Israeli citizenship as soon as their application is approved. For various reasons, they choose not to apply for citizenship. According to the policy, because it is desirable for this group to live in Israel, they are entitled to social insurance and are extremely well registered in both PIBA's and the National Insurance Institute's databases. Registering addresses, for example.

3. Academy Students

19. About 12% of TFL foreigners in Israel are students who study in the academy. Although their address is unknown, we are aware of the university they attend. They probably reside close to the study location so it's easy to predict the locality address. To try and find their exact address at the locality, we are looking for more administrative sources.

4. Asylum seekers and Infiltrators

20. Infiltrators are those who cross the border illegally and not at an authorized crossing point. Most of the infiltrators came from Sudan and Eritrea and illegally entered Israel from Egypt through the Sinai desert between 2007 and 2012. They requested protection when they arrived in Israel due to the danger of going back to their home countries. Despite the fact that many of them requested asylum, few were granted refugee status. Israel also gave them
permission to remain there for a long time until their home nations' conditions permitted them to return. These immigrants have a work permit, and to prolong their stay, they should visit the Population Authority offices once a year. This tracking procedure enables accurate registration of this group, including updating of addresses.

21. About 20% of TFL foreigners in Israel are Asylum seekers and Infiltrators. This figure includes the children born in Israel.

5. Others (Clergy, volunteers and companions)

22. The remaining immigrants are in small groups and have long-term visas, including clergy, volunteers, and companions. There isn't yet an administrative source for the residence address for this group. They make up about 6% of all TFL foreigners and most of them are companions (5.4%).

IV. Overstays tourists in Israel

23. There is another category of immigrants in Israel for a longer period of time without a permit, in addition to TFL group. Most of them are tourists who came to Israel and stayed longer than allowed by their visas. Most of the individuals in this group are illegal immigrants to Israel from less developed countries. Mostly they came for a work purpose

24. The data on entrances and exits from Israel in the border control system is the primary data available for this group. The existing data may be inflated due to missing the link between their entry and exit and also because some of them received a different status for long time stay in Israel during their stay in Israel because even in this group there are mistakes in the registration of the passport number and names.

25. As a result, even in this group, work was necessary to track down Israeli departures as well as cases that had changed status in other databases. The number of these immigrants significantly decreased from 48,000 in 2019 to 30,000 in 2020 as a result of this process of linking data.

26. The registration of addresses doesn't exist because there isn't good registration in this group. At the same time, it is simple to allocate addresses to this group based on the addresses of the TFL from the same country, as we are aware that they reside in the same neighbourhood as those immigrants.

V. Conclusion

27. For many years, the CBS only reported data on foreigners living in Israel at the national level, and it was aware that this data was inaccurate and hence not reliable. The need for foreigner data, as well as the cooperation between the CBS and the Population Authority, sparked a shared interest in improving foreigner data. In order to update the data and generate data at the local level, a collaborative team of the two organizations investigated all the existing databases and established a controlled method of linking records between the various sources.

28. Table 1 shows clearly the differences between the new estimates and the previous situation, as well as the improvement in both the coverage of foreign groups and the estimates' accuracy.
29. We will now be able to give data at the local level thanks to the change from estimates based solely on border control to estimates based on a combination of registration at the border and the management and activity of foreigners while they are in Israel.

30. Due to an improvement in the data, we can now count foreigners both at the national and local levels of the population. This data will initially be integrated into the 2022 census and the population estimates that follow the census. The advancement makes it possible to incorporate these estimations into the administrative census, which Israel intends to transition to in the 2030 round.

31. Finally, there is still considerable effort to be done in order to uncover other sources and raise these estimations. Additional sources that include the foreigner's address in particular are needed.