Data Reporter candidate assignment – Lighthouse Reports

Renata Hirota

Editorial objectives

1. Explain the extent of brain waste in Europe and identify where the problem is worst
2. Identify the professions most impacted by brain waste
3. Identify other variables that are related by brain waste, such as gender, age and reasons for migration.

Follow up questions

1. How is the data going to be presented to readers?
2. About the data: what is the microdata's format? (e.g. one single dataset, relational database etc) Ideally, we should be able to use information from the same individual across tables, which can't be done with the summarised tables available.
3. Does the microdata provide more detailed information on the migrants' country of origin (as opposed to the general area available in the summarised tables)?

Research question

- Can we use job satisfaction, changes in skill level and overqualification as proxies for brain waste? Is there any kind of age or gender bias?

Data Memo

1. Discrimination in the workplace and unemployment

More people feel discriminated by their foreign origin than because of age or disability. Among men, it is the most common reason (second to "Other") for discrimination. *For women, gender is a most common reason.* **Austria** and the **Netherlands** are countries where foreign origin is a common reason for discrimination.

For those who have sought work, the **lack of language skills** is pointed out as the most common barrier in getting a suitable job, which makes sense if we look at the level of skills in the main host country language before migrating (Table 1).

Table 1: Level in the main host country language before migrating

level	%
None or minimum	45.8%
Basic	15.7%
Intermediate	9.1%
Proficient	10.6%
Mother tongue	18.8%

2. Employment satisfaction and changes in skill level

Brain waste can also be identified through **underemployment** of foreign professionals. Even in countries where employment rates are high, there is dissatisfaction and changes in skill level from jobs before and after migrating.

Certain occupations such as plant and machine operators and assemblers have lower levels of satisfaction (Table 2), and it is especially low in Portugal and Poland (Table 3). *It would be interesting if we could interview people in these countries and try to understand why these occupations have lower satisfaction rates.*

Table 2: Job satisfaction across occupations

occupation	HIGH	MED	LOW	NONE
Armed forces occupations	65.1%	-	34.9%	-
Managers	55.1%	4.0%	36.8%	1.5%
Professionals	50.4%	4.7%	40.3%	1.3%
Technicians and associate professionals	45.9%	5.3%	42.6%	1.8%
Clerical support workers	43.5%	5.7%	44.0%	1.9%
Service and sales workers	41.5%	6.9%	44.8%	2.1%

occupation	HIGH	MED	LOW	NONE
Skilled agricultural, forestry and fishery workers	38.3%	8.4%	47.7%	2.3%
Craft and related trades workers	40.6%	5.1%	47.2%	1.6%
Plant and machine operators and assemblers	35.3%	6.5%	51.5%	2.2%
Elementary occupations	33.9%	8.8%	48.1%	2.6%

Table 3: Occupations with lowest level of satisfaction per country

country	HIGH	MED	LOW	NONE
Portugal	21.6%	10.6%	64.1%	2.5%
Poland	31.0%	6.0%	60.5%	1.5%
Czechia	37.2%	4.6%	57.3%	0.5%

One reason for dissatisfaction might be the incompatibility of skill level, since 2.3M. people have had a descrease in skill level in their jobs. *This would need to be checked with the microdata (comparing answers for individuals) and reporting on the ground.* It is also important to note that the higher the education, the more people tend to self-declare as over-qualified, especially among women and young people. (caution: data from 2014).

3. Gender and age bias

Most analyses have found differences in answers according to gender and age. When conducting the reporting on the ground, we should make sure that we are interviewing men and women from different ages.

Further comments

- The microdata is important in order to be able to investigate the data in an individual level and avoid ecological fallacies (assuming that what is true for a population is true for the individual members of that population);
- The question of using variables that are present in the data (job satisfaction, over-qualification, etc) as proxies for brain waste should be validated with migration researchers and reporting on the ground;
- Suggestion: apart from text, it would be interesting to display an interactive tool where readers can input data (age, sex, education, etc) to compare their own situation to foreign-born people with the same characteristics in terms of employment and job satisfaction, for example.