

BRAIN DRAIN: AGAIN or IN VAIN?

Research project

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Introduction

There is stronger and stronger evidence of depletion concerning young people in Italy. This depletion is not only demographical, but also economical, political and social. The situation, described as "degiovanimento" (www.degiovanimento.com), is illustrated through some initial indicators in Balduzzi and Rosina [2009].

Along the path to degiovanimento, one of the aspects which still need to be fully measured and understood is the size of the brain drain. On the one hand, brain drain is seen as a negative phenomenon: it depletes countries from (some of) their most educated students (hence – allegedly – most productive workers); in other words, and more generally, it prevents the accumulation of social capital. On the other hand, however, brain drain allows these "brains" to find their most efficient allocation. Truth, in this case, is probably NOT in the middle: rather, it depends on which of these two sides is the relevant one. It is therefore extremely important to have a more precise quantitative and qualitative description of the phenomenon (it should be evident by now why we do not call it a "problem"), in order to deduce correct understandings and thus suggest more effective policy tools to manage it.

Existing data and limits

Brain drain is usually defined as a process of international migration that interests people with a high degree of education. In particular, it refers to people with any post-secondary education who do not live or work in their native country. A stricter definition considers only the migration of people educated in the native country and working abroad. This phenomenon interests almost every country in the world but it is particularly severe for poor and developing countries in Africa, Asia and South America. As regards richer countries, the focus is usually only on the balance between inbound and outbound flows.

Despite being a typical rich country, a huge political debate exists in Italy exactly on the dramatic effects of the brain drain. Politicians usually insist on the need to call back Italian researchers abroad; websites are created and books are written to provide anecdotal cases. But apart from personal experiences and more or less vague political statements, still little is known about fundamental issues: how many brains leave the country?, where do they go?, what do they do?, why do they leave?, and more importantly: what is the social and economical cost of brain drain in Italy? Despite very recent advancements, it is still difficult to answer to these important questions. More precisely, available data are still not rich enough to provide a complete and satisfactory econometric analysis of the phenomenon. In addition, data are often collected following different criteria: existing datasets may show quite different pictures. In what follows, I will only focus on results with a stronger evidence, trying to understand how Italy compares to other countries.

According to OECD data (2005), **the highly skilled expatriation rate in Italy** (defined as the ratio between highly educated expatriate population from country of origin and the total highly educated native-born population of the same country) is 5.7%: this means that for each 100 Italian students who get a degree, almost 6 of them work abroad. The situation is not very different in other countries: highly skilled expatriation rate in France is 4.5%; in Germany is 5.5%; in Greece is 8%; in Spain is 2.5%; in UK 12.2%; in US is 0.7% (OECD database). A recent and extensive work by Docquier and Rapoport [2009] provides a novel and very interesting set of indicators: corrected and uncorrected brain drain rates by age of entry (or exit). In this way, data

on brain drain can take into account whether education has been acquired before or after the migration took place. They use a collection of different datasets - so data are not always comparable - and show that the difference can be very relevant, in particular for some countries. Italy, where the uncorrected brain drain rate was almost 10% in 2000, is clearly one of them. The difference with the (partially) corrected measures above (it refers to the population over 15) is a proxy of the place where these migrants studied: we can deduce that almost 40% of highly educated Italian expatriates obtained their qualifications abroad. Leaving a country before obtaining a degree is still an element of depletion but at least the cost of providing education is not undertaken by the native country.

The **highly skilled exchange rate**, that is the ratio between inflows and outflows of highly educated people, is -1.2% in Italy, 2.8% in France; 2.2% in Germany; .9% in Spain; 1.1% in UK; and almost 20% in US (Beltrame [2007] on OECD data). This suggests that Italy is not an exception in Europe, but only regarding flows towards other countries. The Italian exception consists in the inability to attract highly skilled migrants.

Additional data confirm this vision. First of all, in Italy **the highly skilled expatriation rate is higher than overall expatriation rate**: this is true not only for Italy, but also for other countries like Greece. Probably this is due to the fact that the highly skilled population is more competitive on the international job market or has an easier access to a broader range of opportunities. An additional reason could be that more educated people have also a greater income, which makes it easier to move from one country to another. Secondly, the **brain drain in Italy is not compensated by "brain inflows"**. Among migrants to Italy, 12.2% are high skilled and almost 54.3% are low skilled. In other countries, the composition of immigrants according to educational level is the following: 25.9% and 39.8% in US, 18.1% and 54.8% in France; 15.3% and 35.2% in Germany; 15.3% and 44.8% in Greece; 21.8% and 55.4% in Spain, and 30.5% and 35.6% in UK (Beltrame [2007] on OECD data). Italy clearly appears as a bad option for more educated migrants. This is probably due to a lot of different conditions. I believe the most important ones to be working conditions (i.e., the level of wages), which also influence the domestic highly skilled expatriation rate; in addition, the lack of an adequate selective migration policy influences negatively the composition of immigrants; finally, the language may be a relevant obstacle. It is not a case that most of highly skilled migrations flow towards English speaking countries with better job and economical opportunities or practicing selective immigration policies (US, Australia, UK); moreover, migrations also flow from ex colonies to mother countries (France, Spain, Portugal); finally, migrants prefer closer countries. Italian highly skilled expatriates confirm this trend, as they mostly reside in the United States (32%), Canada (12.5%), France (9.3%) and Great Britain (8%). Finally, **Italy's educational policies seems to lack a clear strategy**. Between 1995 and 2005, the ratio of spending in education over GDP had been well below the OECD average (4.7% versus 6.1%). This had been true in particular for primary and secondary education, whereas spending in higher education had increased in the period from 0.7% to 0.9% (against an OECD average of 2%). As expected, educational performance of students in Italy has turned out to be unsatisfactory according to international tests (PISA, PIRLS). Education policies do not even provide a good opportunity for integration to second generations. The number of foreign children (under 18) in Italy is 800.000 and half of them were born in Italy. Nonetheless, both PISA and PIRLS tests show significant differences in educational results among Italian and foreign students in Italian schools.

An additional question to understand the phenomenon is about **the reasons to leave the country**. Quite surprisingly, available data are still inconclusive even on this point. According to some authors (Dumont and Lamaitre [2005]), there is no strong correlation among emigration rates of highly skilled people and some economic indicators (such as GDP and unemployment rate) in native countries. This is surprising, as evidence of self reported reasons from Italian expatriates clearly indicates the search of better economical conditions (Beltrame [2007]). Other authors

(Bertoli *et al* [2009]) find significant effects of wage premia on highly skilled expatriation rates. As regards Italy, it is indeed easier to explain why economical reasons are the relevant ones. Job opportunities for educated young people in Italy are not competitive with respect to opportunities from abroad. Data show that between 2000 and 2006, less and less educated people found a job within one year of graduation (from 57% to 53%) and among them, almost 50% of job contracts were not guaranteed. In addition, the purchasing power of the first wage has been decreasing in recent years. I should also stress that the social protection for young people has not been developed: unless their families can help them, young people in Italy are left alone by the welfare state (Balduzzi and Rosina [2009]).

The project

Additional data are necessary to provide more precise description of the brain drain phenomenon: how many students graduate in Italy and use their human capital abroad? What do they do? Do they actually use their specific knowledge or not? What's the proportion of GDP Italy loses from brain drain? Data should be collected and coordinated by international organizations, with national statistics institutes following common standards. For the sake of this project, we could start from available data from the AIRE database and possibly proceed with some sampling and direct interviews on most relevant issues.

Secondly, results should be used to derive policy suggestion to be submitted to national institutions, maybe through an appropriate law proposal.

Finally, as clarified in the introduction, brain drain should be taken into account as a possible measure of the young people depletion process in our country. We aim at building a D index to measure the degree of degiovanimento of a country and to give appropriate tools to policy to tackle this problem.

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- Perotti, R. [2008], **L'università truccata**, Einaudi, Torino.

Existing datasets:

AIRE:

<http://infoaire.interno.it/statistiche2005/stat.html>

ISTAT:

<http://demo.istat.it/>

OECD:

http://www.oecd.org/document/51/0,3343,en_2649_33931_34063091_1_1_1_1,00.html

<http://stats.oecd.org/index.aspx>