Education as a Social Elevator
I am pleased to introduce the "la Caixa" Social Observatory, a new initiative created with the purpose of contributing ideas and scientifically supported results that will enrich public debate over the social problems that affect us all, and whose resolution will determine our future and that of our country.

In the complex societies in which we live, defining the actions and policies to be taken in the social sphere is not simple and involves many interest groups, often with opposing perspectives.

With the aim of contributing to informed and rigorous decision-making, the "la Caixa" Social Observatory will publish a series of important indicators, many of them developed by the observatory itself, which will contribute to an improved understanding of social reality. This information, quite valuable in itself, will be complemented by original studies on important social issues, interviews with scientists and critical reviews of recent books that propose innovative ideas.

In an increasingly open, diverse and participatory society, citizens are not only interested in the issues that impact the quality of their lives and their social wellbeing, but they also wish to have their voices heard.

The Social Observatory is an instrument whose aim is to divulge, among a broad public and in an attractive and accessible manner, the main results and tendencies in the social sciences, so that we have the necessary tools available to understand key issues in such sensitive areas as social inclusion, education, science and culture.

Isidre Fainé
President of the "la Caixa" Banking Foundation
The quality of the education system is key for predicting the future development of a country and an indicator of the opportunities for progress that it is able to provide its citizens.

Even today, the main path to social mobility is acquiring certain educational credentials, as they increase the likelihood of finding quality employment and improving material wellbeing. In the complex knowledge societies in which we live, the need to acquire skills to adapt to our changing environments and to generate innovative solutions reinforces the importance of education.

In an increasingly interconnected world, investment in education determines a country’s competitiveness and its possibilities for success in facing present and future challenges. Prioritizing the education that it offers its citizens is an investment in everyone’s future and guarantees better prospects for development and wellbeing. The result of this investment will be an education system that offers excellence and is the most equitable possible, its benefits distributed independently of students’ social and economic conditions. Working to achieve this is the task of parents, teachers, the education authorities and social organisations.

The "la Caixa" Foundation’s Obra Social is no stranger to this challenge and is deeply committed to improving education, research and knowledge, the core elements guiding our activity.

This is demonstrated by the education programmes we have launched, among which we can highlight:

- The "la Caixa” Pro-Childhood Programme”, a model for comprehensive attention to children and their families in situations of vulnerability.
- The "la Caixa” Scholarship Programme which contributes to educating Spanish students at the best universities and schools in the world.
- The Educaixa portal which offers numerous teaching resources for all stages of education.
Following the presentation of a series of general indicators that provide a broad social picture, the barometer presents some key indicators for understanding the state of education. It compares the situation in Spain with that found in peer countries and emphasizes the close relationship between education and social and employment indicators. Next, the dossier looks at two issues of particular importance: the role of education as a social elevator and the presence of students with immigrant backgrounds in the classroom.

The article by Miguel Requena shows why reaching higher levels of education continues to be a strong guarantee for improving social position, while also providing effective protection against the risk of unemployment and subsequent downward social mobility. These results refute the idea that education is no longer a privileged instrument for social mobility.

However, not all students show the same educational performance. Jorge Calero and Josep Oriol Escardibul analyse the acquisition of certain key competencies, comparing non-immigrant students with those having an immigrant background. They find that non-immigrant students obtain better scores, even when discounting the influence of personal, family and school-based factors on academic performance.

Differences in academic performance are also one of the main issues discussed in the interview with Jane Waldfogel, professor at Columbia University in New York and expert in education. Based on studies she and her colleagues have carried out, the majority of these differences are due to inequalities that appear at early ages. As a result, she argues for prioritising policies to improve early childhood education, as this would be particularly effective in increasing equity in the system and reducing the number of students performing poorly.

The Dossier also includes a review that proposes a combined reading of two books that should prove to be a very enriching exercise for any reader interested in education and particularly in reducing social inequality from childhood.
Summary

7 General Indicators
    7 General Overview

11 Education Indicators
    11 Structure of the Education System
    12 Education Level
    13 Early Childhood Education
    14 Education and Immigration
    16 Education and Salaries
    17 Occupation and Salary Gap

For more data see
www.socialobservatorylacaixa.org
This section provides a general context for the rest of the data and indicators presented in the Barometer. Thus, from a series of basic indicators and synthetic indicators on social, demographic and economic issues, this section offers a global and temporal view of the situation of Spain in the European or international context.

General Overview

1. Level of economic development

Gross Domestic Product per inhabitant in Purchasing Power Standard

Spain and EU-28. Index (EU28 = 100)

The GDP per inhabitant in Purchasing Power Standard in the year 2015 was lower than the European average, with a value of 92. Among the countries with a value higher than the European average were Austria (127), Germany (125), and Denmark (124).

The data are expressed in Purchasing Power Standard, which allows the elimination of the differences in price levels that exist between countries and thus facilitates a more exact comparison of GDP between countries. The volume of GDP per inhabitant in Purchasing Power Standard is expressed in relation with the average of the European Union (EU-28), which is set to equal 100. Thus, if a country’s score is higher than 100, the level of GDP per inhabitant of that country is higher than the average value for the European Union and vice versa.

General Overview

The **Gini coefficient** measures inequality in income distribution. To facilitate its interpretation, the values (from 0 to 1) are multiplied by a hundred, thus they vary between zero and one hundred. A coefficient close to zero means that more equal distribution exists, while a coefficient close to one hundred implies a high concentration of income in a small number of individuals and, therefore, greater inequality.

The **AROPE indicator** for risk of poverty or social exclusion encompasses a multi-dimensional view of poverty or social exclusion accounting for the population that is in at least one of the following three situations: 1) below the poverty risk threshold; 2) suffering severe material deprivation; 3) with low work intensity in the household.

2. Inequality in the distribution of income

**Gini Coefficient (GC)**

<table>
<thead>
<tr>
<th>ESPANYA</th>
<th>EURO AREA 18</th>
</tr>
</thead>
<tbody>
<tr>
<td>2005</td>
<td>30</td>
</tr>
<tr>
<td>2010</td>
<td>20</td>
</tr>
<tr>
<td>2015*</td>
<td>10</td>
</tr>
</tbody>
</table>

The redistribution effect of social transfers is lower in the Spanish case than in the Euro Area 18, as it reduces inequality to a lesser extent.

Between the years 2005 and 2015, a significant increase in inequality occurred in Spain.

![Graph showing Gini Coefficient](image)

3. People at risk of poverty or social exclusion

**AROPE (at risk of poverty or social exclusion) indicator**

<table>
<thead>
<tr>
<th>SPAIN AND EURO AREA 18</th>
</tr>
</thead>
<tbody>
<tr>
<td>2005: 24.3%</td>
</tr>
<tr>
<td>2010: 21.8%</td>
</tr>
<tr>
<td>2015*: 28.6%</td>
</tr>
</tbody>
</table>

**28.6%**

In 2015, the aggregate AROPE indicator stood at 28.6% of the population resident in Spain, against 17% in Finland, Denmark and the Netherlands.

![Graph showing AROPE indicator](image)

4. Unemployment as a key factor in situations of poverty or social exclusion

Unemployment rates
ANNUAL AVERAGE, SPAIN AND EU-28

<table>
<thead>
<tr>
<th>Year</th>
<th>Spain</th>
<th>EU-28</th>
</tr>
</thead>
<tbody>
<tr>
<td>2005</td>
<td>5.3%</td>
<td>5.8%</td>
</tr>
<tr>
<td>2007</td>
<td>5.8%</td>
<td>5.9%</td>
</tr>
<tr>
<td>2009</td>
<td>6.2%</td>
<td>6.6%</td>
</tr>
<tr>
<td>2011</td>
<td>6.6%</td>
<td>6.5%</td>
</tr>
<tr>
<td>2013</td>
<td>6.5%</td>
<td>6.3%</td>
</tr>
<tr>
<td>2015</td>
<td>6.0%</td>
<td>6.2%</td>
</tr>
</tbody>
</table>


Almost half of Spanish young people (aged under 25 years) were unemployed in 2015, far higher than the European average (EU-28 = 20.3%).

22.1%

Over 20% of the active Spanish population was unemployed in 2015. This percentage rises to 23.6% in the case of women.

x5

In the last decade, the long-term unemployment rate in Spain has increased fivefold, rising from 2.2% of the active population in 2005 to 11.2% in 2015.


5. Demographic conditioning factors

Total gross rates of population change and net migration
SPAIN AND EU-28.

Spain has gone from being a country that is basically a receiver of immigration (14.5% in 2005) to a country where emigration now exceeds immigration (-0.2% in 2015)


Gross rates of net migration are understood as the variation in the population caused by migratory movements. Total gross rates of population change are the variation in the population caused by natural changes (births and deaths) and migratory movements.
General Overview

6. Limitations to the training of human capital and to possibilities for economic growth and social wellbeing

Rate for early leavers from education and training
SPAIN AND EU-28

![Graph showing rate for early leavers from education and training]

**Source:** Eurostat, 2016.

7. The challenge of climate change

Annual deviations, relative to the average of the twentieth century, in the temperature of the Earth, between 1880 and today

![Graph showing temperature variation from 1880 to 2016]

**Source:** NOAA’s National Centers for Environmental Information.

Studies and work

42.6%  10

The percentage of people aged from 25 to 64 years with a low level of educational attainment in Spain remains very high: in 2015 it was nearly double that of the EU-28 (23.5%).

The crisis and difficulties in finding employment have incentivised young people to continue studying, with the early school-leaving rate decreasing by 10 points from the start of the crisis.

**Source:** Eurostat, 2016.

2016, the warmest year

+1.05°C

The trend towards a continuous rise in temperature of the Earth is confirmed, and 2016 is being the warmest year on record. This increase has huge environmental, social and economic consequences.

**Source:** NOAA.
Education Indicators

Selection and development by:

Anna Villarroya, professor of Applied Economics
University of Barcelona

Daniela Bellani, Social Sciences researcher
Pompeu Fabra University

This section presents a series of indicators that are key to ascertaining the situation of education in Spain.

The majority of them are constructed based on international databases such as the European Social Survey (ESS), the OECD’s Programme for International Student Assessment (PISA), the EU Statistics on Income and Living Conditions (EU-SILC) and the EU Labour Force Survey (EU-LFS).

Structure of the Education System

UNESCO ISCED Levels

International Standard Classification of Education and its equivalence in Spain
The increase in high school and university graduates experienced in the second half of the last century can be observed in the generation born prior to the 1980s. This explains why Graph 1 shows a significant incidence of population aged between 25 and 34 years with higher education qualifications. This indicator is very similar to that of the United States, one of the countries with the highest percentage of young people with higher education qualifications in the world.

Despite this, the two countries differ greatly in the basic education (primary education and first phase of secondary education levels attained). The graph shows clearly that Spain is far behind the United States in the proportion of young people who have attained a level of intermediate education (secondary 2nd phase and post-secondary education). It is worth highlighting that this difference has decreased in the last ten years, although only slightly.

### 1. Differences in the distribution of educational levels between the United States and Spain

Percentage of the population aged between 25 and 34 years according to the level of education attained

<table>
<thead>
<tr>
<th>Year</th>
<th>Spain</th>
<th>United States</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000</td>
<td>21%</td>
<td>48%</td>
</tr>
<tr>
<td>2005</td>
<td>34%</td>
<td>50%</td>
</tr>
<tr>
<td>2010</td>
<td>41%</td>
<td>24%</td>
</tr>
<tr>
<td>2014</td>
<td>46%</td>
<td>35%</td>
</tr>
</tbody>
</table>

Source: OECD, 2016.

### 54.4%

In the 2013-2014 academic year, over half of the students that matriculated for higher education courses were women

2. Pre-primary education (first cycle)

Percentage of children aged less than 3 years who go to pre-school according to the hours of attendance and financial level of the parents (Europe, 2014)

<table>
<thead>
<tr>
<th>Country</th>
<th>Fewer than 30 hours</th>
<th>30 hours or more</th>
<th>25% lower income</th>
<th>25% average value</th>
<th>25% higher value</th>
<th>25% higher incomes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Denmark</td>
<td>33%</td>
<td>67%</td>
<td>25%</td>
<td>25%</td>
<td>25%</td>
<td>25%</td>
</tr>
<tr>
<td>Belgium</td>
<td>33%</td>
<td>67%</td>
<td>25%</td>
<td>25%</td>
<td>25%</td>
<td>25%</td>
</tr>
<tr>
<td>France</td>
<td>33%</td>
<td>67%</td>
<td>25%</td>
<td>25%</td>
<td>25%</td>
<td>25%</td>
</tr>
<tr>
<td>Sweden</td>
<td>33%</td>
<td>67%</td>
<td>25%</td>
<td>25%</td>
<td>25%</td>
<td>25%</td>
</tr>
<tr>
<td>Norway</td>
<td>33%</td>
<td>67%</td>
<td>25%</td>
<td>25%</td>
<td>25%</td>
<td>25%</td>
</tr>
<tr>
<td>Spain</td>
<td>33%</td>
<td>67%</td>
<td>25%</td>
<td>25%</td>
<td>25%</td>
<td>25%</td>
</tr>
<tr>
<td>Germany</td>
<td>33%</td>
<td>67%</td>
<td>25%</td>
<td>25%</td>
<td>25%</td>
<td>25%</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>33%</td>
<td>67%</td>
<td>25%</td>
<td>25%</td>
<td>25%</td>
<td>25%</td>
</tr>
<tr>
<td>Italy</td>
<td>33%</td>
<td>67%</td>
<td>25%</td>
<td>25%</td>
<td>25%</td>
<td>25%</td>
</tr>
<tr>
<td>Austria</td>
<td>33%</td>
<td>67%</td>
<td>25%</td>
<td>25%</td>
<td>25%</td>
<td>25%</td>
</tr>
</tbody>
</table>

The aim of the European Council is that a third of children aged below 3 years should follow the first cycle of pre-primary education.

In March 2002, the European Council established a set of objectives for improving the occupation rate of parents of small children and promoting gender equality in the labour market. One of these objectives consisted of promoting the first pre-school education cycle, so that at least 33% of children aged below 3 years attended it. As shown by the graph, children from underprivileged economic environments attend pre-school centres significantly less: this group is a long way from the target.

Pre-primary education

96.5%

In the 2012-2013 academic year, practically universal school attendance was achieved at age 4 years, above the 95% proposed for 2020 in the countries of the EU.

Source: MECD, 2015.

Work and childcare

27.4%

Percentage of children aged under 6 years that, in 2012, were at risk of poverty or social exclusion (EU-28: 25.9%).


50.4%

Percentage of the population that thinks that children at pre-school age (under 6 years) are probably jeopardised by their mother working.

Source: International Social Survey Programme 2012, CIS.
3. How many children of immigrant origin are there in the education system?

Percentage of students of immigrant origin in the education system at the age of 15 years

<table>
<thead>
<tr>
<th>Country</th>
<th>Total Immigrants (%)</th>
<th>Students (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Luxembourg</td>
<td>46.1</td>
<td>29.6</td>
</tr>
<tr>
<td>Canada</td>
<td></td>
<td>24.3</td>
</tr>
<tr>
<td>Switzerland</td>
<td></td>
<td>22.7</td>
</tr>
<tr>
<td>United States</td>
<td></td>
<td>21.6</td>
</tr>
<tr>
<td>Austria</td>
<td></td>
<td>16.5</td>
</tr>
<tr>
<td>France</td>
<td></td>
<td>15.0</td>
</tr>
<tr>
<td>Sweden</td>
<td></td>
<td>14.9</td>
</tr>
<tr>
<td>Germany</td>
<td></td>
<td>13.4</td>
</tr>
<tr>
<td>Netherlands</td>
<td></td>
<td>10.9</td>
</tr>
<tr>
<td>Greece</td>
<td></td>
<td>10.6</td>
</tr>
<tr>
<td>Ireland</td>
<td></td>
<td>10.2</td>
</tr>
<tr>
<td>Spain</td>
<td></td>
<td>9.9</td>
</tr>
<tr>
<td>Norway</td>
<td></td>
<td>9.5</td>
</tr>
<tr>
<td>Denmark</td>
<td></td>
<td>9.2</td>
</tr>
<tr>
<td>Italy</td>
<td></td>
<td>7.5</td>
</tr>
<tr>
<td>Portugal</td>
<td></td>
<td>6.9</td>
</tr>
<tr>
<td>Iceland</td>
<td></td>
<td>3.5</td>
</tr>
<tr>
<td>Finland</td>
<td></td>
<td>3.4</td>
</tr>
<tr>
<td>Hungary</td>
<td></td>
<td>1.7</td>
</tr>
<tr>
<td>Japan</td>
<td></td>
<td>0.3</td>
</tr>
</tbody>
</table>

- Students who are first-generation immigrants (not born in the country and both parents are foreign)
- Students who are second-generation immigrants (born in the country and both parents are foreign)

Source: PISA 2012, OECD.

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**Origin of students**

8.6%

Percentage of foreign students matriculated, in the 2014-2015 academic year, in non-university education.

Source: EDUCAbase, MECD.

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**Average score in reading of students aged 15 years**

495

For non-immigrant students in Spain, in 2012.

Source: PISA 2012.

447

For students of immigrant origin in Spain, in 2012.
4. Educational performance of students of immigrant origin and comparison with non-immigrant students

Average score in mathematics of non-immigrant students and of first- and second-generation children in immigrant families at age 15 years

Graph 4 shows the mathematics proficiency of non-immigrant students and of first- and second-generation children of immigrant families at age 15 years. In Spain, the performance of students of first-generation immigrant origin is 55 points below, and that of students of second-generation immigrant origin 34 points below that of non-immigrant students, which is equivalent to being behind by one year of education (the progress recorded in an academic year represents around 40 points in the tests). This gap constitutes a generalised problem in Europe, as even in the Nordic countries, whose education system is considered a model, the differences are even greater.

Source: own production based on data from PISA, 2012.

Average score in mathematics of students aged 15 years

For non-immigrant students in Spain, in 2012. In Germany the average score is 528

For students of immigrant origin in Spain, in 2012. In Germany the average score is 475.

Source: PISA 2012.
Higher education is a beneficial resource; this is indicated by the marked difference between the average income of a higher graduate and that of a person with basic education. Even in times of crisis, education is a crucial tool for escaping from financial instability.
6. Has the crisis affected men and women equally?

Average income for the population aged between 18 and 64 years according to sex and educational level (EUROS PER ANNUM)

<table>
<thead>
<tr>
<th>Year</th>
<th>Higher education</th>
<th>Intermediate education</th>
<th>Basic education</th>
</tr>
</thead>
<tbody>
<tr>
<td>2005</td>
<td>10,000</td>
<td>15,000</td>
<td>20,000</td>
</tr>
<tr>
<td>2007</td>
<td>11,000</td>
<td>16,000</td>
<td>21,000</td>
</tr>
<tr>
<td>2009</td>
<td>12,000</td>
<td>17,000</td>
<td>22,000</td>
</tr>
<tr>
<td>2011</td>
<td>13,000</td>
<td>18,000</td>
<td>23,000</td>
</tr>
<tr>
<td>2013</td>
<td>14,000</td>
<td>19,000</td>
<td>24,000</td>
</tr>
<tr>
<td>2015</td>
<td>15,000</td>
<td>20,000</td>
<td>25,000</td>
</tr>
</tbody>
</table>


After a continuous increase in salaries between 2003 and 2009, from 2010 the income started to fall

7. Occupation

Percentage of people between 20 and 64 years who worked prior to (2007) and during (2013) the crisis by sex

<table>
<thead>
<tr>
<th>Year</th>
<th>Males</th>
<th>Females</th>
</tr>
</thead>
<tbody>
<tr>
<td>2007</td>
<td>58.6%</td>
<td>80.6%</td>
</tr>
<tr>
<td>2013</td>
<td>53.8%</td>
<td>63.4%</td>
</tr>
</tbody>
</table>


Salary gap by sex

- Percentage that men earned above women on the same professional or qualification level in 2014.
- Percentage that men earned above women on the same professional or qualification level in the EU-28 in 2014.

Level of education

- In 2015 41% of the population aged between 25 and 34 years had a higher level of education, three points above the average for the EU-28.

Salary gap by sex

- 18.8%
- 16.1%

19 The Social Elevator
To what degree does education improve social mobility?
Miguel Requena,
Chair Professor of Sociology
UNED

29 Skills Acquisition in Immigrant and Non-Immigrant Students
Jorge Calero,
Chair Professor of Applied Economics
University of Barcelona
Josep Oriol Escardibul,
Professor of Applied Economics
University of Barcelona
The Social Elevator
To what degree does education improve social mobility?

Miguel Requena, Chair Professor of Sociology
UNED

Due to the economic crisis and coinciding with the end of the expansion of Spain’s education system, the idea has spread among the public that, unlike in the past, investing in human capital is no longer useful for moving up the social ladder. However, available data reveals that this is not the case. Even during economic recessions, educational qualifications protect individuals from unemployment, increase their prospects for social mobility and reduce the likelihood of downward mobility.

Key words: education, equal opportunity, social mobility, unemployment
Education’s loss of prestige

The current economic crisis, with its detrimental impact on the material well-being of broad segments of society, has damaged the positive image education has enjoyed as a means for social advancement. At the same time that concerns about the increase in inequality have grown, the media has spread the notion that the education system has lost much of its capacity to improve the social conditions of holders of educational degrees and other qualifications.

We have all seen reports about university graduates working as waiters or cleaning hotel rooms, and read stories of young researchers and doctors who have been forced to move to other countries, looking for opportunities not available in Spain. Although it is not always explicitly stated, the cases of over-qualified job-holders and the emigration of talent have led to the idea that education, above all in times of crisis, is simply not that useful.

Education level is a more significant factor than social origin in providing access to the professional class

As is well-known, over much of the twentieth century, the proportion of Spaniards with high school diplomas as well as those with university degrees increased from generation to generation (Requena and Bernardi, 2005). This progression has now come to a halt and the proportion of the population with such qualifications has even begun to decline among those born after 1980. If the proportion of persons with secondary and university educations is no longer expanding, one might conclude that this is because education no longer pays off as it did in the past. According to this pessimistic narrative, the main driving force behind social mobility in Spain has broken down or is at least not functioning well. Although it is not clear that those who defend this notion are aware of all its implications, if true, the futility of education as a means of social advancement would be of such great importance that it would require urgent attention, and for at least two reasons.

First of all, it would represent a radical departure from what prevailing theory says about education, considering it as the social elevator par excellence in modern societies. In this regard, Carabaña (1999 and 2004) showed convincingly that over most of the 20th century, with educational qualifications being equal, social origin did not have a significant impact on individuals’ access to the professional and managerial class. Thus, education level was more important than social origin for social advancement.

Secondly, the inability of the education system to serve as a social leveller would imply – if it were true – the disappearance of the main
social mechanism to guarantee equal opportunity in contemporary societies. Whether concerned about distributive justice or the efficient distribution of talent, whoever believes in the virtues of a meritocracy should take very seriously this disturbing news that education is no longer fulfilling its commendable role of paving the way for upward social mobility.

In short, has education lost its capacity to be a social elevator? I will try to answer this question examining the available evidence and will argue that educational qualifications in Spain continue to be – as they were during much of the last century – an effective resource for improving individuals’ socioeconomic position. Although the available data for the most recent period are scarce and not as complete and detailed as we would like, the data provide at least three arguments demonstrating that education in Spain helps to improve the social position of individuals and that it will likely continue to do so in the future: (1) education increases the likelihood of upward social mobility; (2) it reduces the risk of downward social mobility and (3) reduces the risk of becoming unemployed.

**The educational ladder to social advancement**

As we will see, in Spain, educational qualifications foster the advancement of children toward higher social strata than their parents. In other words, education promotes upward intergenerational mobility, which is precisely what occurred among the generations born in the first seven decades of the 20th century. We can rely on Carabaña again on this point, as he noted “education in general, and the university in particular, are an effective vehicle for upward social mobility.... The effectiveness of education as an access channel to the university educated professional class has historically been the same for all social classes” (2004: 219). As there is no doubt regarding the past, the interesting question is whether or not education continues to be this privileged channel toward more desirable social positions for younger generations.

This question can be answered by turning to the Living Conditions Survey, a periodic survey whose questionnaire in 2011 included a module focused on the intergenerational transmission of poverty, which contained information on the occupation of parents and children. This module, which has not been included in the survey since then, was applied to survey participants born between 1951 and 1985; the youngest of whom have already had to face, in the beginning of their working careers, a labour market that since 2008 has been seriously impacted by the recession.
Due to the relatively reduced size of the sample that responded to this module (N=18,304) and the lack of detail regarding the father’s occupation, we consider only three major social classes: the working class (skilled and unskilled manual labour), the middle class (small business owners and routine non-manual labour) and the professional and managerial class. These three major classes result from aggregating the 11 original classes in the now classic Goldthorpe class scheme known as the EGP (Erikson and Goldthorpe, 1992). The different education levels are also grouped into three major categories: less than secondary education, lower and advanced secondary education, and university education.

Graph 1. Probability of gaining access to professional and management classes according to background class and educational level

<table>
<thead>
<tr>
<th>BACKGROUND CLASS</th>
<th>WORKING CLASSES</th>
<th>INTERMEDIATE CLASSES</th>
<th>PROFESSIONAL AND MANAGEMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than secondary</td>
<td>5%</td>
<td>25%</td>
<td>60%</td>
</tr>
<tr>
<td>Secondary</td>
<td>20%</td>
<td>50%</td>
<td>70%</td>
</tr>
<tr>
<td>University</td>
<td>35%</td>
<td>15%</td>
<td>80%</td>
</tr>
</tbody>
</table>

Source: INE, Encuesta de Condiciones de Vida (Living Conditions Survey), 2011.

Due to the relatively reduced size of the sample that responded to this module (N=18,304) and the lack of detail regarding the father’s occupation, we consider only three major social classes: the working class (skilled and unskilled manual labour), the middle class (small business owners and routine non-manual labour) and the professional and managerial class. These three major classes result from aggregating the 11 original classes in the now classic Goldthorpe class scheme known as the EGP (Erikson and Goldthorpe, 1992). The different education levels are also grouped into three major categories: less than secondary education, lower and advanced secondary education, and university education.

Education in Spain continues to be – as it was during much of the last century – an effective resource for improving the socioeconomic position of degree holders.

To illustrate our hypothesis that education continues to be a good means for social advancement in Spain, we first look at the rates of mobility into the professional and managerial class. These rates represent exit or class destination (outflow), in other words, the percentage of individuals in different classes of origin that have ended up in the professional and managerial class. In addition, they measure the likelihood of the children of parents of each of these three classes of being professionals or managers. As is obvious, to evaluate the impact of education on mobility, we must compare the rates of access to managerial and professional occupations for the three levels of education chosen.
The data show (graph 1) that those with university degrees have higher rates – that is, greater likelihood – of access to the professional and managerial class than those without a university education. The importance of education is revealed by the fact that persons with high education levels are far more likely to be employed in more desirable occupations than are those with low education levels, regardless of their class origins.

In terms of relative mobility (that which compares the mobility of one class with others), we find that among individuals that come from the working class, those who have a university education are 14 times more likely to be employed in professional and managerial occupations than those who did not complete secondary education. The children of middle-class parents with higher education are three times as likely to become managers and professionals as their middle-class peers that did not complete secondary education. The children of professionals and managers who get a university education are twice as likely to remain in their class of origin as those who have less than a secondary education. The probabilities of reaching or remaining in the professional and managerial class for those with university degrees in comparison to those who completed secondary school are approximately 5 to 1 for individuals of working-class origin and 3 to 1 for those from the middle class or the professional and managerial class.

In short, we find that educational qualifications provide a great advantage for upward mobility in all social classes; in addition, the relative advantage obtained is greater, the lower an individual’s social class of origin.

This does not mean that there is no inequality in educational opportunities linked to social class, as the survey reveals that 63% of the children of professionals and managers obtain university degrees, while only 26% of the children of working-class parents do. Nor does it mean that the likelihood of mobility is no longer connected to social origin, as the children of professionals and managers are 2.8 times more likely to be professionals and managers than the children of working-class parents and 1.4 times more likely than the children of middle-class parents. What these data really show is that educational attainment is the best way to avoid the inequality of opportunities resulting from social origin.

**Who earns a university degree in Spain?**

<table>
<thead>
<tr>
<th>63%</th>
<th>26%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Children of professional or managerial-level parents</td>
<td>Children of working-class parents</td>
</tr>
</tbody>
</table>
Education as a way to avoid downward mobility

Educational qualifications not only foster upward mobility, but they also reduce the risk of an individual falling from their social class of origin to a lower class. To examine this possibility, the rates of mobility used in the previous section are again useful, calculated now for cases of individuals of middle-class and professional- and managerial-class origin descending to the working class. First of all, children born in middle-class families have a much lower risk of ending up in the working class if they have a university education (11%) than if they only have a secondary school education (49%) or less (66%). Secondly, regarding children of the professional and managerial class, one third of those that do not complete secondary education descend to the working class, a similar proportion is found for those with secondary school educations. However, this downward mobility only occurred with 8% of those with a university degree.

These results can be seen in graph 2, which shows that in the two higher classes, the risk of descending to the working class is inversely related to educational qualifications. Obviously, the children of working-class parents cannot, due to the scheme we have used, descend on the social scale, but they can remain in their social class of origin. In this regard, it is not surprising to find that a lower level of education is associated with remaining in the working class: six out of ten individuals of working-class origin that do not complete secondary education remain in the working class, in comparison to 52% with a secondary school education, and 17% with a university degree. In addition, (although these data are not shown in graph 2) individuals with low levels of education...
are over-represented among those from the professional and manageri-
- cal class that descend to the middle class.

For their part, the children of the middle class and the professional and
managerial class with university degrees have a much lower likelihood
of descending to the working class than others of the same social origin
with lower levels of education. In fact, even if they have not finished
secondary school, the children of the professional and managerial class
are at half the risk of moving to a lower social class than the children of
working-class parents are of remaining in that class. In short, education
is very effective in helping individuals avoid downward mobility and a
lack of education, in contrast, strengthens the effects of social class of
origin on downward mobility.

**Graph 2. Probability of moving to or remaining in the working class
according to class of origin and educational level**

![Graph 2](source.png)

Source: INE, Encuesta de Condiciones de Vida (Living Conditions Survey), 2011.

**Education and unemployment**

The third reason education fosters social mobility is because it protects
individuals from unemployment, that scourge of Spain’s economy that
has reduced economic development, reduced the well-being of the indi-
viduals and families affected and frustrated the life projects of those
who suffer it. Research on the impact of unemployment (Arulampalam,
2001) has shown the lasting damaging effects on those who do not find
employment and are therefore unable to work at economically active
ages. Being unemployed, above all when young (Mroz and Savage,
2006), increases the likelihood of later working in jobs with low wages
and poor working conditions.

In addition to the loss in wages, unemployment can negatively impact
family relations, lower self-esteem and damage health. For all these
reasons, being unemployed reduces future possibilities for intragenera-
tional upward mobility; in other words, the possibility that individuals
can improve their employment paths over time.
In Spain, there is abundant evidence showing that unemployment is not equally distributed among persons with different education levels (EducaINEE, 2013; López-Bazo and Motellón, 2013; OECD, 2014); on the contrary, the risk of unemployment is inversely related to educational qualifications. Data from the Active Population Survey (graph 3) are very clear: the higher the level of education, the less likelihood of becoming unemployed.

The protection that education provides from unemployment in Spain is very clear, and this is the case not only in periods of economic growth but also in times of recession. Although unemployment rates among the most educated in Spain are more than double that for the OECD and the EU (OECD, 2014 and 2015), the highest rates in Spain are found among individuals with low education levels, and this is true regardless of the phase of the economic cycle. This is not surprising if we look at what jobs have been destroyed during the recession: primarily, the worst jobs, that is, those requiring low qualifications.

Education not only protects individuals from unemployment during both periods of growth and recession, it also, and even more importantly, protects both men and women and different age groups. The distribution of unemployment by sex and age in Spain is well-known: the unemployment rate for women is higher than that of men, and it is higher among youth. The unemployment rate among those who are 20 to 24 years of age is double that for the overall population and much higher than the unemployment rate of mature workers. However, if we consider men and women separately, and if we look at unemployment by age groups, the unemployment rate is lower, the higher the level of education (graph 4). This inverse relationship between education and unemployment is significant and clear for both sexes and among almost all age groups.

Graph 3. Unemployment rate according to educational level (Spain, 2007-2016)

Males and females, all ages (%)

In short, in a country with a labour market unable to satisfy the aspirations of a large proportion of the population, having a high level of education is clearly one of the best forms of protection against unemployment, and this is the case regardless of sex, age and phase of the economic cycle. Education is an optimal instrument for avoiding the obstacles that reduce career advancement; protecting individuals from unemployment, it boosts careers by fostering intragenerational mobility.

**In conclusion: looking toward the future**

Available data refutes the idea that education no longer serves as a social elevator, and this is the case despite the continuing connection between opportunities for social ascent and social origin. Education continues being a means to intragenerational and intergenerational upward mobility and an effective barrier to descent. Professional and management occupations in general require university degrees. Without one it is very difficult to reach the higher social strata of contemporary societies or remain in them.

A significant proportion of the social mobility that we see in comparing the position of parents and children – above all those with university educations – is *structural or forced* mobility, that is, produced by changes in occupational structure, and not by the mere circulation of persons among the different positions in a fixed distribution of occupations. In other words, in Spain, the continuing growth in professional and managerial positions (Requena et al., 2011 and 2013) is the cause of the upward social mobility induced by educational achievement. This is

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**Graph 4. Unemployment rates in Spain by sex, age and educational level (2016)**

![Graph showing unemployment rates in Spain by sex, age and educational level (2016)](source: INE, Encuesta de Población Activa (Active Population Survey), Q2 2016.)
what accounts for the mobility of the recent past and, as available data shows, this has also been the experience of the most recent generations to join the labour market.

With more detailed data than we have presented here, we could apply a similar argument to vocational education, as vocational qualifications are necessary for carrying out technical jobs and holders of such qualifications have better prospects of finding well-paid work than individuals without such qualifications (Carabaña, 2014).

What is going to happen in the future with our current youngest generations can only be a matter of conjecture. But if occupational change continues to lead to an increase in the number of professionals, managers and skilled technicians in detriment to jobs that require less skill, the future of education as a lever for social ascent is assured.

In short, this is what we would expect to occur in those societies we refer to as knowledge societies: the growing importance of work that demands high qualifications in the occupational structure will foster upward mobility. If this is the case, education will continue providing a decisive advantage in the struggle for social advancement.

References


Skills Acquisition in Immigrant and Non-Immigrant Students

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Josep Oriol Escardíbul, Professor of Applied Economics
University of Barcelona

The difference in PISA 2012 results between immigrant and non-immigrant students, in the latter’s favour, is only partly due to their immigrant status. Personal, family and school-related factors, and student performance, are related differently with the scores of immigrants and those of non-immigrant students. In turn, performance, especially among non-immigrant students, decreases when the proportion of immigrants at the different education centres exceeds 30%, whereas a lower percentage does not produce this effect.

Key words: skills acquisition, immigration, PISA, education policy, educational performance.
The Spanish education system has experienced a steady and very significant growth in immigrant students since the end of the 1990s. As can be seen in graph 1, Spain has gone from having practically no immigrants in the classroom to approximately 10% of the student population being of immigrant origin.

In this article we ask what educational results do immigrant students obtain (in comparison with their non-immigrant classmates), and what are the factors that explain these results. These questions are concretized in four objectives. First, we describe the differences in skills levels between students of immigrant origin and non-immigrant students. Secondly, we establish the extent to which these differences are explained by socio-economic factors or by other factors linked to the condition of being an immigrant. Thirdly, we look at whether the factors related to the acquisition of skills are the same for non-immigrant students and those of immigrant origin. Lastly, we examine whether the concentration of immigrants in schools has a negative impact on the acquisition of skills.

The educational performance of non-immigrant students and those of immigrant origin

Given the significant proportion of students of immigrant origin in Spain, it is important to know if their educational results differ from non-immigrant students. To do this we have used data from The Programme for International Student Assessment (PISA) of the OECD, which, every three years since 2000, has been evaluating students’ competencies in reading comprehension, mathematics and sciences. In the last wave of results available, from 2012, some 25,000 Spanish students from more than 900 schools were evaluated. The PISA test permits us to know the competency levels of students of 15 years of age along with

Graph 1. Evolution of the percentage of foreign students in non-university education in Spain

% of foreign students


1.5% 3.0% 5.8% 7.6% 9.7% 10.0% 9.8% 9.1%

Source: own production based on data from the Spanish Ministry of Education, Culture and Sports (MECD, 2013) and the same ministry’s online Education Statistics Database.
Table 1. Average results in mathematics, reading and science skills in PISA 2012.

<table>
<thead>
<tr>
<th></th>
<th>NON-IMMIGRANT STUDENTS</th>
<th>2ND GENERATION IMMIGRANTS (born in Spain)</th>
<th>1ST GENERATION IMMIGRANTS (born abroad)</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATHEMATICS</td>
<td>Average result</td>
<td>491</td>
<td>457</td>
</tr>
<tr>
<td></td>
<td>Difference with respect to non-immigrant students</td>
<td>-</td>
<td>-34</td>
</tr>
<tr>
<td>READING</td>
<td>Average result</td>
<td>495</td>
<td>448</td>
</tr>
<tr>
<td></td>
<td>Difference with respect to non-immigrant students</td>
<td>-</td>
<td>-47</td>
</tr>
<tr>
<td>SCIENCES</td>
<td>Average result</td>
<td>504</td>
<td>467</td>
</tr>
<tr>
<td></td>
<td>Difference with respect to non-immigrant students</td>
<td>-</td>
<td>-37</td>
</tr>
</tbody>
</table>

Source: own production based on microdata from PISA-2012.

certain individual characteristics, allowing us to distinguish between non-immigrant students and those of immigrant origin. The latter group can be divided into those born outside of Spain of immigrant parents (referred to as first-generation immigrants), and those born in Spain but of immigrant parents (second-generation immigrants). In 2012, the average score for OECD countries was 494 points in mathematics (in Spain the average was 484), 496 in reading comprehension (488 in Spain) and 501 in sciences (496 in Spain).

In table 1 we see the average scores for both immigrant and non-immigrant students for the three competencies evaluated by PISA 2012. The figures indicate significant differences in the results between non-immigrant and immigrant students. However, in the latter group, we find the results for second-generation immigrants (those born in Spain) are closer to the scores of non-immigrant students than first-generation immigrants. This is particularly the case in mathematics and sciences. Regarding reading comprehension, the scores of first and second-generation immigrants are essentially the same.

With further analysis of the above data we can look at the distribution of the results and, more specifically, the proportion of students with very low scores. In this regard, the European Union has set as a target for the year 2020, that the percentage of students scoring below proficiency level 2 (on a scale of 1 to 6) on the PISA test should not exceed 15% (see the European Commission’s strategy framework, Edu-
In the case of first-generation immigrants, the percentage of students with low scores is practically double the European target of 15%; in the case of mathematics it is almost triple. These percentages are lower for second-generation immigrants, while for non-immigrant students, the EU targets are already (almost) being met in sciences and reading comprehension, with only scores in mathematics being clearly above target.

Regarding the results of this evaluation of students’ competencies, having been born in Spain seems to be important, particularly with respect to scores in mathematics and science. In the case of students only educated in Spain, these results are indicative of the capacity of the education system to compensate for differences that can originate in the family (although it is clear that some students born outside the country may have initiated schooling when they were already in Spain). The difference in school performance between first- and second-generation immigrants is common and, in addition to the factor mentioned, is explained by the fact that second-generation immigrants do not directly face the obstacles of migration and the difficulties of adaptation to new contexts and a new language (Jensen and Rasmussen, 2011).

Immigration and educational performance
In this section we analyse what part of the differences we find between first- and second-generation immigrants is due to the individual and family characteristics of the students (age, sex and socioeconomic and cultural environment of the household, for example), the school (material and professional resources, as well as organizational aspects and interactions with classmates or peer effects) and factors related to educational policies (the degree of comprehensiveness of the system, the existence of external assessments, etc.). We have used a type of analysis that permits us to isolate the effects of each variable on educational performance, independently of the effect of the other variables, and to determine what differences among groups of students are not due to any of these variables and, therefore, can be attributed to the very condition of being an immigrant. Following this strategy, we analyse the relationship of the different factors considered with the scores from the test on mathematical competencies (which was evaluated in depth in PISA 2012).

As can be seen in table 1, non-immigrant students score 55 points higher in mathematics than first-generation immigrant students. However, when we take into account the personal, family and school characteristics included in our model, we see that of this 55 point difference, 35 are explained by these factors (particularly family-related factors, such as socioeconomic origin and culture in the home). Therefore, immigrant status only explains 17 of the 55 point difference between non-immigrant and first-generation immigrant students (graph 3).

“Immigrant status”, in our approximation, is composed of diverse elements that we cannot precisely measure or differentiate, but based on the data are only present in the case of students of immigrant origin. Some of

Graph 3. Difference in points between pupils of immigrant origin with respect to non-immigrant pupils, in mathematical skills, due to their condition as immigrants

<table>
<thead>
<tr>
<th>Difference in points with respect to non-immigrant pupils</th>
</tr>
</thead>
<tbody>
<tr>
<td>55</td>
</tr>
<tr>
<td>Gross difference: attributable to socioeconomic factors and the environment</td>
</tr>
</tbody>
</table>

Source: own production based on microdata from PISA-2012.
these elements may be related to psychological traits that shape a determined orientation on the part of the immigrant student or his/her family toward the educational institution in the receiving country. They may also result (at least potentially) in discriminatory treatment (conscious or unconscious) on the part of the teaching staff and other students, or in a tendency for immigrant students to relate with other immigrant students, and, therefore, so-called “peer effects” for immigrant students may differ from those of non-immigrant students.

In the case of second-generation immigrants, starting from a “gross” difference in scores of 34 points less than non-immigrant students, we arrive at a “net” difference (subtracting the effect of the factors we have considered) of 13 points. These results show that second-generation immigrant students have fewer differences with non-immigrant students than first-generation immigrant students. This is not unexpected given what we have explained previously; however, it is noteworthy that once we have discounted the effect of the series of factors considered, the variable related to immigrant status has a similar impact on both groups of immigrants.

Factors with a differential effect on the mathematical competencies of non-immigrant and immigrant students

In this section we develop a similar analysis as in the previous section, although, in this case we look at non-immigrant and immigrant students separately (this is a common practice in international studies; for example, Dronkers and Van der Velden, 2013). The objective of the study is to analyse, for the Spanish case, whether individual, family and school-related factors are associated in a different way with students’ results for each group considered.

In table 2 we see some of the relevant characteristics of the students participating in the PISA study. As can be seen in the table, there are practically the same proportion of males and females in each group of students. However, there is a significantly lower proportion of students of immigrant origin that were enrolled in early childhood education for more than one year than among non-immigrant students (65.5% versus 88.2%, respectively). In addition, the percentage of immigrant students that have repeated a year of school (54.9%) is much higher than that found for non-immigrant students (30%), as is the percentage with high rates of absenteeism (37% versus 26.9%, respectively).

 Students belonging to the second generation of immigrants no longer have to overcome the obstacles nor the difficulties that accompany migration
Regarding the family, we find the level of education of the parents of non-immigrant and immigrant students is very similar (approximately 11 years of schooling). In contrast, the availability of books in the home, interpreted as an indirect indicator of family cultural resources, reveals a disadvantage for immigrant students: only 14.5% live in homes with more than 100 books, while the figure for non-immigrant students is 47.5%. In terms of school characteristics, immigrant students attend schools with a much higher proportion of the student body also being immigrants – 24.3%, in comparison to only 8.1% for non-immigrant students. Also higher is the percentage of immigrant students (8-point difference) in schools described by their administration as suffering discipline problems. However, the difference in the years of schooling
of the parents is very small, and the student-teacher ratio is slightly favourable for students of immigrant origin (11 to 1) in comparison to non-immigrant students (13 to 1).

In short, with the exception of parents’ educational level and student-teacher ratios, students of immigrant origin share certain characteristics that place them in a worse position than their non-immigrant classmates in terms of reaching the same educational outcomes.

When we analyse the association between different factors and mathematical competencies, the results show that the majority of the individual variables impact in the same direction for both non-immigrant and immigrant students. Thus, being a female is negatively related to scores for both groups. Also in both groups, students that repeated a year of school, that have problems with absenteeism and that began to use information and communication technologies late tend to have lower scores. However, we find a positive relationship between having attended pre-school for more than one year and the acquisition of competencies (although only in non-immigrant students). For immigrant students, the time residing in Spain is positively correlated to PISA scores (a result also found in Zinovyeva et al., 2014).

Regarding family-related variables, the socioeconomic and cultural level of the household (defined through a single indicator) is clearly and positively related to results for both groups of students. However, if we breakdown this indicator into its various components (years of schooling of parents, their employment and occupational status, as well as the educational and cultural resources available to the student in the home), only this latter factor has a positive impact on the results for all students; in addition, father’s occupation and a greater level of home educational resources available are also favourably associated with results, although only for non-immigrant students.

Regarding school-related variables, the lack of significance of the variables related to type of school (public or private) in the analysis for both groups of students stands out. Thus, the results for independent private schools and publicly subsidised private schools are not signifi-
cantly different from those found in state schools, once we control for other significant variables.

In short, the empirical evidence shows that the majority of variables are associated in a similar manner with the results for both immigrant and non-immigrant students. Among the differences that we have found that could have an impact on education policy, are the particular sensitivity of immigrant students to the variation in the average number of years of parents’ schooling and that attending pre-school for more than one year only has positive effects on the performance of non-immigrant students. In the first case it appears that the social capital of classmates (measured by the years of parents’ schooling) is more important among immigrant students; in the second case, the lack of any relationship between pre-school education and results for immigrant students could be explained by the characteristics of the pre-schools they attended (Rovira et al., 2013).

The availability of books in the home, as an indicator of the cultural resources of families, represents a disadvantage for students from immigrant families

**Concentration of immigrants in schools and the acquisition of competencies**

An element associated with immigration that some studies include as an influential factor on educational performance is the concentration of immigrant students (or ethnic minorities) in specific schools. Studies reveal uneven effects, although the majority of analyses conclude that the concentration of immigrant students has negative effects, particularly for non-immigrant students (Jensen and Rasmussen, 2011). The positive cases correspond to countries that attract immigrants with higher levels of qualifications, a factor that Schnepf (2007) defines as “immigrant capital”.

In the case of Spain, a series of studies using PISA data have analysed the effect of the concentration of immigrants on students’ scores, establishing diverse thresholds to see if there exists a differential effect of this concentration. Graph 4 shows that the concentration of immigrants in schools is negatively associated with the scores of non-immigrant students in tests of mathematical competencies when the levels of concentration are high (at least 30% and especially at 40% or more), and with those of immigrant students (although in this case, only if the concentration is above 40%). The empirical evidence shows that, in Spain, the concentration of immigrants is negatively associated with students’ results, particularly non-immigrant students, although the threshold for concentration to have an impact has increased over time.
Immigrants and skills: what matters most?

Our objective in this article has been to examine the impact of immigration on skills acquisition. We have done this through four differentiated approaches.

In the first, we quantified the difference in scores on the PISA test between non-immigrant students and students of immigrant origin. In the second, we saw how the lowest results among the latter group are to a great extent related to socioeconomic and cultural origin and the specific conditions of schooling, which places them in a disadvantaged starting position in comparison to non-immigrant students. However, our analysis reveals that not all of the difference is explained by the variables in the model, leaving a proportion of the score directly related to immigrant status. Specifically, 17 points on the PISA test in the case of first-generation immigrants (almost one third of the total difference with non-immigrant students) and 13 points in the case of second-generation immigrants (accounting for 38% of the difference).

In our third approach we examined up to what point the factors that are related to the acquisition of competencies are different for non-immigrant and immigrant students. The results show that the factors that impact on their education are similar. In the education sphere, the main differences are the particular sensitivity of immigrant students to the educational level of their parents and the fact that pre-school attendance is only related positively with results among non-immigrant students.

In the last of our approaches we show how the concentration of immigrant students in schools negatively affects the acquisition of competencies. However, this association occurs at a certain threshold, which in 2012 stood at approximately 30% of the student body for non-immigrant students.

Source: own production based on microdata from PISA-2012.

Graph 4. Score in tests for acquisition of mathematical skills in non-immigrant students and students of immigrant origin by concentration of immigrants at the school centre
grant students and 40% for immigrants. This threshold has increased in recent years, which suggests reasons for optimism in light of the gradual improvement in processes of integrating immigrant students in Spain’s education system.

The results of our research lead us to suggest certain policy actions. We would advise a more balanced distribution of immigrant students among schools to improve the performance of both non-immigrant and immigrant students. In addition, compensatory educational measures should be initiated as soon as possible, particularly among immigrant students, to correct deficits in the educational quality of pre-school education.

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Interview

Jane Waldfogel
Chair Professor of Social Work and Public Affairs at the University of Columbia and visiting professor at the London School of Economics.

“To reduce inequality, we have to do more in early childhood”

Jane Waldfogel, a professor of social work and public affairs at the Columbia University School of Social Work, sat down in New York City recently to talk about her new book *Too Many Children Left Behind*, which examines the question: Is the American Dream actually a reality? The authors analyzed educational data from the United States, the United Kingdom, Canada and Australia in attempting to answer three questions: How large is the achievement gap among children in the United States? When does this gap emerge as children move through the school system? And what can the United States learn from other nations? Below are excerpts from a conversation on the book:

What led you and your co-authors to examine these questions?
We had been looking at the gaps in early childhood. We had been looking at gaps in school readiness and we also knew from published literature, from studies like PISA, that there is also tremendous inequality among children, in say adolescence, and also tremendous inequality among adults. What we didn't know was how inequality in early childhood relates to the inequality in adolescence and in adulthood. Are children starting out somewhat unequal before school, and are those gaps widening as they move through school? That might be reasonable to expect. Or is much of the inequality already present before they even start school? There really had not been an answer to that question before and we felt we were in a good position to work on that.

Can you start out our discussion by talking about the methodology used for this book?
We wanted to try to trace inequalities from early childhood through the school years, and we needed to follow the same sample of children over time.
We decided to use parental education because it was measured in the most comparable way across countries and also because a parent’s level of education is a pretty good marker for their position in society and the kind of resources they are going to have.

We chose the U.S., UK, Canada and Australia. We learned subsequently that this is called a ‘most similar cases’ design, so we are really comparing like to like. We thought they are a good comparison because they have similar welfare states, similar labor markets, and similar cultural norms.

One of the most surprising findings in this book was that the majority—60 to 70 percent—of the SES (socio-economic status) gap in achievement for children at age fourteen in the United States can already be attributed to differences present when students enter the school system. Can you talk about these findings?

If you had asked me before we started the project, I would have said that I would have expected about half of the gap to be present already at school entry and another half would develop during the school years. But as you said, that was not the case; about 60 to 70 percent of the gap is already present at school entry. This has huge implications in terms of policy remedies.

We absolutely want to hold schools accountable, and we expect schools to reduce inequalities and to do their job, but if we are going to give schools a fighting chance, we have to do more in early childhood. However, because the bulk of the gap is already there at school entry, you can’t lay all of the blame on schools in the United States.

Can you talk a bit about the policy solutions that are necessary to lessen the skills gaps when children enter schools?

There is one set of policies around supporting early learning and that would be evidence-based parenting programs and universal pre-school programs. These things are relevant in the U.S. context because we don’t yet have universal pre-school—we are working on universal pre-kindergarten, which now serves about 25-28 percent of children, but we are in the minority of advanced countries that don’t yet have universal pre-school, so this is still a pending issue for us. There is also a role for income supports. Income supports are not just a problem for early childhood, but right through the school years. If families are worrying about money almost all the time, it’s going to affect children’s ability to concentrate and do well when they get to school.

Even if most of the achievement gap can be traced back to differences prior to school entry, a substantial proportion—30 to 40 percent—of the gap emerges during the school years. Can the school be said to produce inequalities?

The same kind of family factors that are leading to inequality in early childhood could also be leading to more inequality during the school years.

But you have to look at the role of the schools as well. We learned that in most countries the children with the greatest needs are assigned the most capable, the most experienced teachers. That’s not the case in the United States. We also learned that on average we have a pretty poorly-qualified teaching workforce.
In the UK, Canada and Australia, teachers are paid on average about 100 percent, 95 percent and 102 percent, respectively, of the salary received by other university-educated professionals. In the United States it’s about two-thirds; teachers are paid about two-thirds of the salary of other similarly educated professionals.

Can you talk a little about why there might be lower expectations for students in the U.S. than in other countries?

I think many countries separate children based on ability and then have different expectations for the children, and expect them to arrive at different end points. I think all countries have a history of that, but I think many countries are now moving towards a more comprehensive or more integrated model. Finland is really the poster child in this regard. In Finland, not only are the teachers highly qualified and highly trained, but all the children are expected to learn the same material, regardless of their starting ability, and it’s understood that some children will need more help than others.

In the United States, I think we are more in the sorting business, sorting children based on which ones may be capable of the higher level math and which ones should be learning the lower levels of math. Once you do that, you are consigning some children to a lower level of achievement.

In the book, you discuss the idea of an ‘arms race’ in out-of-school spending on extracurricular activities. Can you explain what you mean by this?

It’s another thing I hadn’t realized before we started the book, how much this is a U.S. phenomenon. What we have seen in the U.S. is that economic inequality has grown, and social inequality has grown; parents have become more concerned about the future outcomes for their children, and also their ability to invest in their children has become more unequal. You put those two things together, and the result is this ‘arms race’ of investments in children. It used to be the case that how much parents spent on pre-school or how much they spent on books and toys or enrichment activities didn’t differ a lot by SES, but there is now this widening gap in those kinds of investments. This is a big part of why children are arriving at school so much more unequal.

Addressing inequalities during childhood has a potentially huge pay-off for society’s future

Can you talk about the policy solutions that are important to lessen achievement gaps?

A significant portion of inequality arises during schooling, so we also look at certain policies for the school years. Some of those would be having a more consistent curriculum, which would help support more uniform expectations for all children.

We’ve talked about raising the standards of the teaching workforce, recruiting and retaining a high quality teaching workforce, as well as more individualized attention, higher expectations for individual children. There is a lot to do.

In your comparisons, Canada stands out in terms of devoting more resources to children, having less inequality among students, and also more educated parents. What is it about Canada?

Canada was a big surprise in this study. We knew that Canada had high levels of educational achievement and relatively high levels of equity, but I don’t think we were aware of how culturally different Canada is compared to the other countries. It has
the most educated parents. Even within education groups, they seem to have the most educationally-oriented parents. There is a stunning graph in the book that shows that the lowest educated parents in Canada – those who’ve only completed high school or less – read as much to their children as college-educated parents in the United States.

The book notes that low-SES children in the U.S. are not achieving their full potential and that the talent of these children is being partially wasted. Can you talk about the broader economic implications that result from these inefficiencies in learning?

It’s a major concern that not only are these children leaving school with fewer skills and lower levels of achievement, but this is also going to have lifelong consequences in terms of both their economic well-being and their contribution to society. We are really dooming ourselves to continuing inequality and continuing low achievement because these are going to be the parents of the next generation of children.

That’s why the pay-off is potentially so huge in addressing inequalities in the current generation of children; because it’s not just helping those children, it’s going to help all of us in society by having more productive, more highly-skilled workers. But also a more highly-skilled and better prepared next generation of parents.

What lessons should political leaders learn from this book?

In the United States, and also in other countries, too many children are being left behind. And this does not have to be so; measures can be taken that encourage more equal performance: support policies for pre-school education, to complement the income of families of a lower socioeconomic level and to improve the quality of teaching and of learning at schools.

Interview by Sara Jerving
Towards More Inclusive Education: From Multiple Intelligences to a Passion for Learning

Marta Seiz, Researcher at the Spanish National Research Council (CSIC)

How can teaching formulas be found that definitively leave behind the pedagogical limitations of recent years? What new pathways does the current literature offer us for tackling the educational needs and demands of the future? All over the world, in parallel with the proliferation of quantitative indicators of results and comparative evaluations between countries, there has been a blossoming of theoretical endeavours that seek to lay down the bases for a different kind of education that is broader in its reach, methods and scope, as well as to unravel the secrets of academic success. The first current provides the context for psychologist Howard Gardner’s theory of multiple intelligences, explained in the book *Multiple Intelligences Around the World*, co-edited with Jie-Qi Chen and Seana Moran. Belonging to the second current is the book by psychologist and researcher Angela Duckworth *Grit: The Power of Passion and Perseverance*. Although these are two contributions to the subject with very different focuses, reading them together can be an enriching and highly gratifying experience for anyone interested in the subject of education and especially in reducing social inequality from childhood. In this sense, the central theses of the two books mutually reinforce and complement each other, while offering inspiration and possible keys for a more inclusive education.

In *Multiple Intelligences Around the World* the reader is introduced to the theory of multiple intelligences, which distinguishes between nine types of intelligence: linguistic, logical-mathematical, musical, spatial, bodily-kinaesthetic, interpersonal, intrapersonal, naturalistic and existential. The central contribution of this work is the illustration of how this theory allows us to go beyond traditional methodologies and techniques for assessment – based on
linguistic and logical-mathematical skills – in very diverse contexts. With this in mind it describes how the theory has been applied in different schools, social spheres and educational phases across several continents. The fundamental lesson to be learned from this work is that making the effort to cater for the multiplicity of capabilities of students reaps a dual benefit. Firstly, better attention and educational integration of students is achieved, as the range of intelligences contemplated is sufficiently broad for all of them to have some kind of capability in which they excel, and which may be identified, strengthened or used as a starting point for stimulating others. Secondly, the entire educational process is enriched, as expanding the range of skills that are assessed and encouraged requires a greater range of teaching and learning tools and of fields for the practical application of the knowledge learned. Simultaneously, the dedication and creativity of teachers is given continual impetus, as they find themselves forced to search for techniques that effectively cater for all this variety and for the different skills and needs of students.

However, the book lacks a critical dimension: it barely touches on the difficulties that may be found along the way. The examples offered are success stories and some of the problems raised by applying the theory are only mentioned or discussed superficially. For example, there is no explanation of how application of the theory demands a considerable investment in terms of resources, if the aim really is to properly identify each student’s skills and strengthen them to the maximum, while avoiding any risk of pigeonholing or excessive compartmentalisation of knowledge. Nor does it question the fact that the method seems to work particularly well in small schools, with middle or middle-upper class students, and at early educational phases, where the intensity of teachers’ dedication and even of family involvement are key to obtaining good results, more than the educational method in itself. Even so, the book has an evident strong point: it centres the debate on the possibilities that are opened up by catering for a diversity of aptitudes and spheres of knowledge and personal development. The theory of multiple intelligences, as presented in this volume, would simplify in practice the process of individualisation of education, as it offers simple pathways to access the multiple capabilities of each student and, once identified, tries to stimulate them. This favours the self-esteem, self-confidence and learning process of those children who do not grasp conventional learning and assessment methodologies and who, generally, do not receive recognition of many of their capabilities nor of their potential.

Chen, Moran and Gardner aim to encourage students’ passion for learning, thus making the potential of each of them visible

This final point connects in a particularly interesting way with the book by Angela Duckworth, who, through systematic analysis of different types of data and scientific studies in the spheres of psychology, aims to identify the keys to excellence in diverse contexts, with a special emphasis on academic performance. Duckworth begins by explaining how sustained effort has been revealed to be essential for acquiring and perfecting skills. Over the course of the book she makes deeper inroads into what this persevering effort means, examining its relationship with what is habitually known as talent. Finally, she identifies its defining characteristics: high, well-defined targets, as well as interest in the activity in question and the pleasure obtained from it. The author’s fundamental conclusion is that innate aptitudes and IQ are less important than perseverance in practice and in study, above
all when faced with the difficulties that emerge from the passion for what one does. These skills, far from being something that is given and static, are highly malleable and sensitive to development and stimulation.

According to Duckworth, the passion that leads to resistance, constancy, personal self-improvement and success – i.e., learning – can be encouraged in different ways. Two of the most important are the cultivation of one's own interests and stimulation from teachers, mentors and other significant reference people. It is precisely this question that enables the two books to enter into a dialogue from which we can obtain inspiration and practical teachings. On an individual level, Duckworth's book offers very diverse examples in this respect. One particularly illustrative example is the story of a scientific researcher considered from a very early age to have learning difficulties, to the point that he ended up re-taking whole academic years at a special education centre. His future changed radically when one particular teacher was able to identify his capabilities, show confidence in them and thus awaken in him a motivation to learn. This process of transformation began in a musical area in which the child showed a certain talent, and subsequently that talent expanded to other fields, moved by the boy's growing self-confidence, his progressive interest in learning new things and his desire to show that he could outdo himself. And the work edited by Chen, Moran and Gardner offers interesting demonstrations of very similar processes on a collective level, illustrating how, at schools characterised by their low performance, special education centres or even in specific programmes for high-ability children, learning can substantially improve after making the necessary adjustments for detecting, recognising and developing the diversity of skills of each student.

The theory of multiple intelligences, applied as recommended in this latter book, by expanding the range of disciplines and skills that must be within the sights of teaching staff, would precisely make it easier for all students to have the opportunity to find out what their real passion is and devote themselves to it. Simultaneously, it would encourage teachers to really observe each student and their capabilities and talents, beyond the narrow confines of conventional indicators and also opening up the door to the necessary stimulus for acquiring interest and perseverance to students who without this attention would end up outside the system. This inclusive potential, ultimately a catalyst for reducing many inequalities, is present as a cross-cutting theme in both books and this is one of the aspects connecting them. Taking this as a starting point for a reflection on current education systems could provide a new angle for their reform, leading to an education that is not only broader, richer and better adapted to the new times, but also truly a promoter of equal opportunities for all.

For Duckworth, the perseverance born of a passion for what one is doing opens up the doors of learning and development for everyone.
“la Caixa” Pro-Childhood Programme
Model to foster the comprehensive development of children in situations of poverty and social vulnerability.

Jordi Riera Romani, Vice Chancellor of Academic Policy. Ramon Llull University

### Problem
Sometimes, schools alone are not enough to break the cycle of inherited poverty, nor to guarantee equality of opportunities.

Diverse national and international reports confirm the impact that inequality and chronic poverty have on educational and social development during childhood and adolescence. One of these reports, specifically, Low-Performing Students: Why They Fall Behind and How To Help Them Succeed (January 2016), from the OECD, argues that in Spain, 40% of students from disadvantaged families have levels so low in mathematics that they do not achieve basic proficiency, in contrast to 8% of students from more advantaged households. Similar results occur with reading and science. In other words, students' family and socioeconomic contexts determine their performance in the education system, consolidating a vicious circle of low performance that leads to school failure and early school leaving.

*Source: Own production based on data from the OECD, the National Institute for Educational Assessment (INEE) and the Adsis and Jaume Bofill foundations.

### Approach
The methodological axis around which the “la Caixa” Pro-Childhood Programme, which serves 60,000 children and adolescents and 40,000 families in situations of poverty and risk of exclusion, revolves, is that education generates opportunities and integrates multiple dimensions and that all educational agents share joint responsibility.

The programme provides support to families, children and adolescents based on an interdisciplinary, intersectorial and interprofessional approach, with the aim that the groups it supports aspire to achieve the highest levels of education and training.

The main objective is to combat school failure, and this is done through educational reinforcement at the group and individual level and both inside and outside the school. The programme organises workshops that help parents develop parenting skills and channel their concerns about the education of their children, which results in an improvement in family coexistence and relations.

### Results
Recent data indicate that we are heading in the right direction and encourage us to expand this model of local social and educational networks.

If we take into account the fact that 30% of students from low socioeconomic backgrounds do not complete compulsory secondary education (approximately 3 of every 10 of these students leave school before finishing compulsory secondary education), among students from this group that receive support through networks sponsored by the “la Caixa” Pro-Childhood Programme, the rate declines to 6.3%. Another significant result is that if the average for school success in compulsory secondary education for students from vulnerable situations and low socioeconomic levels is 51%, among those students that benefit from support from the Pro-Childhood Programme, this percentage climbs to 77%.

In short, these are very promising results, which encourage us to continue to strengthen this model of local social and educational networks as an action strategy, with a clear commitment to supporting educational and social change in our society.
Against child poverty

We work to let children just be children

"la Caixa" Foundation works so that every day of the year all children can have the same opportunities.

We help more than 250,000 boys and girls to escape from poverty by offering them educational support, food and resources to build a better future for them and for everybody.

Thanks to all those of you who help to make it possible.