Income Inequality and Education Premia

by

Marco Lilla
Income Inequality and Education Premia

Marco Lilla
Università Politecnica delle Marche

Abstract  The paper attempts to measure income inequality and its changes over the period 1993-2000 for a set of 13 Countries in ECHP. Focusing on wages and incomes of workers in general, inequality is mainly analyzed with respect to educational levels as proxy of individual abilities. Estimation of education premia is performed by quantile regressions to stress differences in income distribution and questioning the true impact of education. The same estimates are used to decompose income inequality and show the rise in residual inequality.


The views expressed in this paper are those of the author(s) and do not necessarily reflect views of CEPS/INSTEAD. IRISS Working Papers are not subject to any review process. Errors and omissions are the sole responsibility of the author(s).
Abstract
The paper attempts to measure income inequality and its changes over the period 1993-2000 for a set of 13 Countries in ECHP. Focusing on wages and incomes of workers in general, inequality is mainly analyzed with respect to educational levels as proxy of individual abilities. Estimation of education premia is performed by quantile regressions to stress differences in income distribution and questioning the true impact of education. The same estimates are used to decompose income inequality and show the rise in residual inequality.

Keywords: Inequality, Education Premium, Quantile Regression

JEL classification: D31, J24, J31
1 Introduction

Since ’70s in the US and UK, since 80s for many European Countries wage inequality increased, both between and within groups, defined by some observable individual characteristics, with respect their ‘skills’\(^1\).

Education has been called in many analysis to explain new evidence. Facing with the increase in wage or income inequality, theories challenged to explain new findings with several models. On one extreme view, inequality pattern relates to trade growth, increasing inequality in developed countries and upward mobility in the developing ones are the two faces of same coin, no concern should be expressed when considering the whole economy\(^2\). On the other extreme, inequality rises as the labor institutions (unions, employment protection laws, ...) have become weaker: hence, inequality - along with the diminishing labor share - can be related to the downfall of minimum wage or to the deunionization of labor force\(^3\). Some schumpeterian authors modeled technology resulting in skill-biased change, in order to explain the rising wage differentials between the educational groups. They also find the within groups inequality rise as an outcome of the more ‘general’ new technological paradigm\(^4\).

European Countries have some differences with respect to the US labor market, in particular in the past European labor markets were less flexible. It has been argued that the same shift in the technology produced different outcomes with respect to the US and the European Countries. In the latter labor markets the technological shock had its main effects on quantity (unemployment) rather then price (inequalities)\(^5\). Nevertheless, also in Europe by the late 80s something changed, labor markets have became more flexible, employment protection legislation have become weaker and inequality rose (Glyn, 2001).

In this paper the link between inequality and education is exploited with a detailed look at differences throughout income distribution. Hence, Quantile Regression (QR) are used to get a wide picture of education premia over time and for each Countries. Next section shows sample data and some figures about inequality and education. In section 3, the empirical model is presented as well the returns for education. Last section sums the results and concludes.

\(^1\)See among others Murphy and Welch (1993) and Juhn et al. (1993), for an early debate on wage inequality trends for the US, and Machin (1996) for the UK.

\(^2\)See for example Wood (1995).

\(^3\)See DiNardo et al. (1996).

\(^4\)Aghion, Howitt and Violante (2002) pointed out the role of luck in the labor market related to the increasing within-group inequalities, as a consequence of the major “generality” of knowledge in the new technological paradigm.

\(^5\)See Ljunqvist and Sargent (1998) for some evidence.
2 Data

Sample data came from the European Community Household Panel (ECHP), an annual survey repeated from 1994 to 2001, based on a representative panel of households and individuals in 12 countries. In the following years other three countries were added to the survey, so that ECHP in the end covered 15 countries for slightly different periods.

A sub-sample of ECHP is used here: because of the availability of some key variables two countries have been excluded, Netherlands and Sweden. Moreover, while in general the measures here refer to the period 1993-2000, there are three exceptions: Austria and Luxembourg start from 1994, Finland from 1995. Workers aged 16-64 (employed and self-employed) are observed, incomes refer to the year prior to the survey and measured in real terms and in PPPs based on the starting year of the period 1993. In the ECHP data, education is classified in 3 broad levels, renamed here as low, middle and high skill.

Sample differs by countries in population and income shares of each educational group (see figure 1 and table 1). Over the period, mean real income by educational group changed differently across countries and educational groups. In general, mean income growth was slightly more effective for the high skilled group. Mean incomes figures can be summed up:

- high skilled workers mean income increased in Denmark, Belgium, Ireland, Greece, Finland and United Kingdom; it was almost stable in Germany and Luxembourg, slightly decreased in France, Italy, Spain, Portugal and Austria;

- medium skilled workers mean income increased in Denmark, Belgium, Ireland and United Kingdom, remained constant in Italy, Greece, Spain, Finland, Germany and Luxembourg, diminished in France, Portugal and Austria;

- low skilled workers mean income increased in France, Ireland, Italy, Greece, Spain, Portugal, Finland and United Kingdom, was stable in Denmark and decreased in Austria, Germany and Luxembourg.

---

6At the beginning the countries included in ECHP were: Denmark, Netherlands, Belgium, France, Ireland, Italy, Greece, Spain, Portugal, Germany, Luxembourg and United Kingdom.

7Austria joined in 1995 while Finland and Sweden in 1996, Sweden data were derived from the Swedish Living Conditions Survey.

8Incomes refer to the year prior the survey.

9In particular, the three levels are quite similar to the primary, secondary and tertiary education with few differences across countries; low-skilled stands for 0-2 ISCED codes (pre-primary; primary or first stage of basic education; lower secondary or second stage of basic education), medium skilled for the 3 ISCED code (upper secondary education), high skilled for the 4-6 ISCED codes (post secondary non tertiary; first stage of tertiary; second stage of tertiary).
Table 1: Mean Income, Sample and Income shares by educational levels

<table>
<thead>
<tr>
<th>Country</th>
<th>1993</th>
<th>2000</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>low-skill</td>
<td>medium-skill</td>
</tr>
<tr>
<td>Denmark</td>
<td>10312.53</td>
<td>12666.05</td>
</tr>
<tr>
<td>Belgium</td>
<td>13268.84</td>
<td>14556.32</td>
</tr>
<tr>
<td>France</td>
<td>11966.43</td>
<td>14509.50</td>
</tr>
<tr>
<td>Ireland</td>
<td>13065.34</td>
<td>14068.81</td>
</tr>
<tr>
<td>Italy</td>
<td>11244.04</td>
<td>13242.93</td>
</tr>
<tr>
<td>Greece</td>
<td>7063.89</td>
<td>10664.32</td>
</tr>
<tr>
<td>Austria</td>
<td>1942.67</td>
<td>15123.91</td>
</tr>
<tr>
<td>Finland</td>
<td>12979.14</td>
<td>14492.37</td>
</tr>
<tr>
<td>Germany</td>
<td>11235.56</td>
<td>15123.91</td>
</tr>
<tr>
<td>Luxembourg</td>
<td>18354.90</td>
<td>24766.83</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>10416.11</td>
<td>11337.69</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Country</th>
<th>1993</th>
<th>2000</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>low-skill</td>
<td>medium-skill</td>
</tr>
<tr>
<td>Denmark</td>
<td>0.23</td>
<td>0.41</td>
</tr>
<tr>
<td>Belgium</td>
<td>0.24</td>
<td>0.35</td>
</tr>
<tr>
<td>France</td>
<td>0.30</td>
<td>0.45</td>
</tr>
<tr>
<td>Ireland</td>
<td>0.37</td>
<td>0.43</td>
</tr>
<tr>
<td>Italy</td>
<td>0.30</td>
<td>0.40</td>
</tr>
<tr>
<td>Greece</td>
<td>0.46</td>
<td>0.28</td>
</tr>
<tr>
<td>Spain</td>
<td>0.37</td>
<td>0.19</td>
</tr>
<tr>
<td>Portugal</td>
<td>0.83</td>
<td>0.11</td>
</tr>
<tr>
<td>Austria</td>
<td>0.21</td>
<td>0.71</td>
</tr>
<tr>
<td>Finland</td>
<td>0.28</td>
<td>0.39</td>
</tr>
<tr>
<td>Germany</td>
<td>0.23</td>
<td>0.56</td>
</tr>
<tr>
<td>Luxembourg</td>
<td>0.42</td>
<td>0.41</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>0.49</td>
<td>0.16</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Country</th>
<th>1993</th>
<th>2000</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>low-skill</td>
<td>medium-skill</td>
</tr>
<tr>
<td>Denmark</td>
<td>0.018</td>
<td>0.30</td>
</tr>
<tr>
<td>Belgium</td>
<td>0.020</td>
<td>0.32</td>
</tr>
<tr>
<td>France</td>
<td>0.22</td>
<td>0.40</td>
</tr>
<tr>
<td>Ireland</td>
<td>0.35</td>
<td>0.38</td>
</tr>
<tr>
<td>Italy</td>
<td>0.44</td>
<td>0.41</td>
</tr>
<tr>
<td>Greece</td>
<td>0.38</td>
<td>0.29</td>
</tr>
<tr>
<td>Spain</td>
<td>0.47</td>
<td>0.18</td>
</tr>
<tr>
<td>Portugal</td>
<td>0.70</td>
<td>0.14</td>
</tr>
<tr>
<td>Austria</td>
<td>0.14</td>
<td>0.74</td>
</tr>
<tr>
<td>Finland</td>
<td>0.20</td>
<td>0.34</td>
</tr>
<tr>
<td>Germany</td>
<td>0.30</td>
<td>0.33</td>
</tr>
<tr>
<td>Luxembourg</td>
<td>0.32</td>
<td>0.42</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>0.44</td>
<td>0.14</td>
</tr>
</tbody>
</table>
Figure 1: Mean Income by Educational Groups
Table 3: Inequality decomposition by Education, between and within components

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Denmark</td>
<td>0.147</td>
<td>0.135</td>
<td>0.013</td>
<td>0.015</td>
<td>0.135</td>
<td>0.121</td>
</tr>
<tr>
<td>Belgium</td>
<td>0.172</td>
<td>0.266</td>
<td>0.009</td>
<td>0.016</td>
<td>0.163</td>
<td>0.249</td>
</tr>
<tr>
<td>France</td>
<td>0.309</td>
<td>0.233</td>
<td>0.045</td>
<td>0.025</td>
<td>0.264</td>
<td>0.209</td>
</tr>
<tr>
<td>Ireland</td>
<td>0.306</td>
<td>0.279</td>
<td>0.026</td>
<td>0.016</td>
<td>0.280</td>
<td>0.263</td>
</tr>
<tr>
<td>Italy</td>
<td>0.205</td>
<td>0.174</td>
<td>0.013</td>
<td>0.010</td>
<td>0.193</td>
<td>0.165</td>
</tr>
<tr>
<td>Greece</td>
<td>0.278</td>
<td>0.221</td>
<td>0.019</td>
<td>0.024</td>
<td>0.259</td>
<td>0.197</td>
</tr>
<tr>
<td>Spain</td>
<td>0.262</td>
<td>0.253</td>
<td>0.060</td>
<td>0.021</td>
<td>0.232</td>
<td>0.232</td>
</tr>
<tr>
<td>Portugal</td>
<td>0.284</td>
<td>0.259</td>
<td>0.063</td>
<td>0.056</td>
<td>0.220</td>
<td>0.183</td>
</tr>
<tr>
<td>Austria</td>
<td>0.222</td>
<td>0.185</td>
<td>0.019</td>
<td>0.018</td>
<td>0.202</td>
<td>0.167</td>
</tr>
<tr>
<td>Finland</td>
<td>0.241</td>
<td>0.255</td>
<td>0.035</td>
<td>0.040</td>
<td>0.206</td>
<td>0.215</td>
</tr>
<tr>
<td>Germany</td>
<td>0.193</td>
<td>0.215</td>
<td>0.019</td>
<td>0.029</td>
<td>0.174</td>
<td>0.186</td>
</tr>
<tr>
<td>Luxembourg</td>
<td>0.173</td>
<td>0.198</td>
<td>0.035</td>
<td>0.046</td>
<td>0.137</td>
<td>0.192</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>0.242</td>
<td>0.245</td>
<td>0.021</td>
<td>0.018</td>
<td>0.221</td>
<td>0.227</td>
</tr>
</tbody>
</table>

Income inequality can be decomposed into the between-group and the within-group inequality components by the three educational groups, as it’s shown in table 3 with respect the Theil Index. Total inequality grew only for few Countries\[^{10}\]: Belgium, Germany, Finland and Luxembourg. All of them were among the less unequal Countries in the sample at the starting year. The table 3 shows that education measured by the three broad levels explain only a negligible amount of total inequality, while differentials within each educational group play the major role. This is only a rough descriptive measure, where education is the only observable. Obviously, education should increase its role when accounted for other individual observables as age, sex, experience, tenure, occupation, industry and so on. Nevertheless, the link between higher inequality and education could be measured in several ways in order to get some different pictures (see figure 2, where the change in income inequality is related with the mean educational level of the Country, larger bubbles stand for higher mean educational level in the whole period).

What we need to better understand the role played by education in inequality patterns is to get not only a measure but a detailed range of measures. In the next section, Quantile Regressions are used to consider the differences through incomes distribution in education premia between different groups of individuals.

\[^{10}\]It should be stressed that even if referred as Countries, samples here are not representative as summary measures at Country-level.
Figure 2: Change in Inequality and Educational level

Note: Circles are proportional to the mean educational level of the workers in the samples.
3 Incomes and Education Premia through Quantile Regressions

3.1 Conditional Incomes by education and experience

The mean effect of education on income and inequality could be misleading. The changes in the shape of incomes distribution suggest to look for the differences between some points of such distribution. Hence, the analysis is performed using quantile regression - LAD models - in some quantiles: estimation is performed at .10, .25, .50, .75 and .90 quantiles. Quantile regressions allow for a detailed look to the premia structure, distinguishing the education impact on different segments of the labor market\(^{11}\).

The income equation is:

\[ Y_i = \beta_0^\theta + \beta_1^\theta Edu_i + \beta_2^\theta Edu_i^2 + \beta_3^\theta Exp_i + \beta_4^\theta Exp_i^2 + \beta_5^\theta Ten_i + \\
\beta_6^\theta Ten_i^2 + \beta_7^\theta Edu_i * Exp_i + \beta_8^\theta Edu_i * Ten_i + \beta_9^\theta Edu_i * Sex_i + \\
\beta_{10}^\theta Exp_i * Sex_i + \beta_{11}^\theta Ten_i * Sex_i + \delta^\theta D_i + u_i \] (1)

or

\[ y_i = x_i^\prime \beta^\theta + u_i^\theta, \] (2)

\[ Q_{\theta}(y_i|x_i) = x_i^\prime b_{\theta}, \theta \in (0,1) \] (3)

where: \( \theta \) is the quantile, Edu means years of education and is measured as age in which the worker ended higher general education course minus starting education age, Exp means potential experience and is measured as age minus age in which the worker i ended higher general education course, Ten means tenure for the current job, D is a set of few controls for sex, industry and occupation. Age does not enter in the equation because of the collinearity, since it would be the sum of Edu and Exp variables.

The education premia structure has been easily measured from:

\[ \frac{\delta Q_{\theta}(y|x)}{\delta Edu} = b_0^\theta + 2b_2^\theta Edu + b_4^\theta Exp + b_5^\theta Ten + b_9^\theta Sex \] (4)

and an example of the results of such estimation are shown in table 5, with reference to the male workers.

As premia structure can add a degree of confusion given its derivative nature, conditional quantiles (CQ) have been plotted in figures 3-15\(^{12}\). Such

---
\(^{11}\)See Koenker and Bassett (1978), Buchinsky (1998).
\(^{12}\)Similar figures with respect to the education premia can be sent by the author on request.
Table 5: Conditional Quantiles, Results example

<table>
<thead>
<tr>
<th>QUANTILES</th>
<th>10Q</th>
<th>25Q</th>
<th>50Q</th>
<th>75Q</th>
<th>90Q</th>
<th>OLS</th>
</tr>
</thead>
<tbody>
<tr>
<td>LS, Exp=0, Ten=0</td>
<td>3755.52</td>
<td>6144.85</td>
<td>8213.56</td>
<td>11132.63</td>
<td>12796.07</td>
<td>8802.87</td>
</tr>
<tr>
<td>MS, Exp=0, Ten=0</td>
<td>755.05</td>
<td>733.84</td>
<td>875.67</td>
<td>880.98</td>
<td>1396.99</td>
<td>1292.60</td>
</tr>
<tr>
<td>MS, Exp=15, Ten=0</td>
<td>5056.17</td>
<td>8673.10</td>
<td>11608.77</td>
<td>13926.22</td>
<td>15876.67</td>
<td>11148.71</td>
</tr>
<tr>
<td>MS, Exp=15, Ten=10</td>
<td>9505.20</td>
<td>12692.02</td>
<td>16417.67</td>
<td>20722.73</td>
<td>25313.69</td>
<td>17575.23</td>
</tr>
<tr>
<td>MS, Exp=30, Ten=10</td>
<td>13873.42</td>
<td>15622.72</td>
<td>18200.77</td>
<td>21295.32</td>
<td>25255.06</td>
<td>19113.93</td>
</tr>
<tr>
<td>MS, Exp=30, Ten=20</td>
<td>13550.19</td>
<td>15660.33</td>
<td>18921.58</td>
<td>23873.77</td>
<td>29665.17</td>
<td>21061.16</td>
</tr>
<tr>
<td>HS, Exp=0, Ten=0</td>
<td>8910.33</td>
<td>10401.43</td>
<td>13530.50</td>
<td>16543.57</td>
<td>20070.97</td>
<td>15442.98</td>
</tr>
<tr>
<td>HS, Exp=15, Ten=0</td>
<td>7182.03</td>
<td>10844.40</td>
<td>13598.80</td>
<td>16663.77</td>
<td>19031.06</td>
<td>13221.57</td>
</tr>
<tr>
<td>HS, Exp=30, Ten=20</td>
<td>8739.16</td>
<td>9634.79</td>
<td>13181.96</td>
<td>16656.38</td>
<td>21960.80</td>
<td>16565.53</td>
</tr>
</tbody>
</table>

Denmark 1993
figures are arranged in the way that each column refers to different educational level (from right: low, middle and high skills) while each row refers to different combinations of potential experience and job tenure, starting from the young unexperienced workers in top boxes and ending with high-tenure old workers in the bottom boxes. The red lines stand for the 2000 conditional quantiles, ending year of the period, while the black dashed ones stand for the initial year, different for some Countries (see section 2). The figures show also two points for the conditional OLS income.

Theories could suggest some general patterns in the figures (see section 1):

- CQ should be increasing with education and over time for the SBTC hypothesis (in the figures: from the left to the right and from dashed to red lines);
- CQ should be increasing also with experience, given the major generality of the new technological paradigm which allows higher transferability of skills between jobs (in the figures: moving down along each column);
- incomes over time reflect at least economic growth and the changes in the supply of skills: while the former should rise the overall distribution no matter the group (differences in general between the dashed black and the red lines), the latter should impact negatively on the younger unskilled workers incomes (implying minor changes or negative ones for the top-left boxes).

Moreover, going back to the inequality-education link, one should note that the differences explained by education can be thought as the differences between columns in the figures (between-group inequality), while flatter lines could be seen as lower unequal returns within each educational level (within-group inequality).²²

Countries can be grouped on the similar patterns of incomes over time:²³

a) In many Countries experience had an effective value in determining the changes over the 90s, with also upward shifts related to the older cohorts: this is the case of Denmark, Belgium, France, Italy, Greece, Spain, Germany and United Kingdom, while in Ireland it was true only for low-skilled workers and in Portugal only for low-paid workers (the lower tail of distribution). Note also that in Belgium also unexperienced workers entering the labor market had a real premium and that Austria and Ireland moved in the

---
²²A QR-based measure of between and within inequality components is shown in the next paragraph.
²³For other results on some European Countries in previous years see Pereira and Martins (2004); See Buchinsky (1994) for an application to US data, Lills (2005) for an QR analysis of Italian labor market.
opposite direction with respect to experience. In all these cases there have been some

b) Education explained part of the shifts in other Countries, where the changes in incomes were also related to more educated individuals: France, Greece, Portugal, Luxembourg, Belgium for the upper tail of distribution, Ireland and Finland for the younger workers.

3.2 Residual inequality by quantile regression

The estimates based on quantile regression can be used to construct a measure of the relevance of the model and conversely of the changing role of residual inequality over time.

Following Angrist et al (2004), let us define the Inter-Quantile Range as difference in conditional income between two points of income distribution: \( IQR_{\theta_2,\theta_1}(Y \setminus X) = X'\beta^{\theta_2} - X'\beta^{\theta_1} \). Hence, we can define a measure of within-group (residual) inequality (RI) from the IQR:

\[
RI_{\theta_2,\theta_1} = Median(IQR_{\theta_2,\theta_1}(Y \setminus X)) = Median[X'(\beta^{\theta_2} - \beta^{\theta_1})] \tag{5}
\]

Similarly, the conditional median of the IQR could be used to sum up the between-group inequalities:

\[
BI_{\theta_2,\theta_1} = IQR_{\theta_2,\theta_1}(X'\beta^{0.5}) \tag{6}
\]

Finally, a relative measure of the residual inequality can be defined as the Residual-to-Total Ratio (RTR):

\[
RTR_{\theta_2,\theta_1} = \frac{RI_{\theta_2,\theta_1}^2}{RI_{\theta_2,\theta_1}^2 + BI_{\theta_2,\theta_1}^2} \tag{7}
\]

RTR is positive by construction and bounded between 0 (no within inequalities) and 1 (no between inequalities). Figure 16 shows some RTR, in particular with reference to the differences between the 90th and the 10th quantiles, the 90th and the 50th quantiles, the 50th and the 10th quantiles. The measures show that RTR was major when the upper tail is taken into consideration. While there is no general trend for the within and between absolute measures of inequality (RI and BI) across Countries over time, the relative weight of residual inequality increased over time for many Countries, with the major rise when to the bottom of the income distribution is considered.

\textsuperscript{15}So that IQR should be 0 in case of within inequality, no needs for quantile regression.
4 Concluding Remarks

Education has been called to explain the behavior of income inequality over
time and across different economies. As the relative income of skilled work-
ers grew more than the supply of skill, it was argued that a skill-biased
technological change was occurring, demanding more and more educated
workers.

Many Countries experienced the increase in education premium in its
mean level, but differences arise when we consider the whole income distri-
bution and different groups of workers based on their sex, experience, tenure
and so on. Education had a real value especially for the younger high-skilled
workers in some Countries, while the change in technology was not-so-easy
for the older cohorts, with increasing within-group differences. Experience
in many Countries played an important role, determining major changes in
conditional incomes. The role of the unobservables has been measured by
quantile regression to complete the picture.

In this paper some evidence has been shown for thirteen European Coun-
tries, from the ECHP data. Analysing a period of quite stable or declining
inequality, many Countries presented a more unequal premia structure. This
is true especially for some segments of the labor markets. Policies aimed at
targeting these workers and facilitate their ”adjustment” should be encour-
aged.
Figure 3: DENMARK

Source: ECHP
Figure 4: BELGIUM

Source: ECHP
Figure 5: FRANCE

Source: ECHP
Source: ECHP
Figure 7: ITALY

Graphs by education, experience, and tenure

Source: ECHP
Figure 8: GREECE

Graphs by education, experience, and tenure

Source: ECHP
Figure 9: SPAIN

Source: ECHP
Figure 10: PORTUGAL

Graphs by education, experience, and tenure

Source: ECHP
Figure 11: AUSTRIA

Graphs by education, experience, and tenure

Source: ECHP
Figure 12: FINLAND

Graphs by education, experience, and tenure

Source: ECHP
Figure 13: GERMANY

Graphs by education, experience, and tenure

Source: ECHP
Figure 14: LUXEMBOURG

Source: ECHP
Figure 15: UNITED KINGDOM

Source: ECHP
Figure 16: QR-based Inequality Decomposition

Source: ECHP
References


IRISS Working Papers

The IRISS Working Paper Series has been created in 1999 to ensure a timely dissemination of the research outcome from the IRISS-C/I programme. They are meant to stimulate discussion and feedback. The working papers are contributed by CEPS/INSTEAD resident staff, research associates and visiting researchers.

The fifteen most recent papers


Electronic versions

Electronic versions of all IRISS Working Papers are available for download at http://www.ceps.lu/iriss/wps.cfm
IRISS-C/I is a visiting researchers programme at CEPS/INSTEAD, a socio-economic policy and research centre based in Luxembourg. It finances and organises short visits of researchers willing to undertake empirical research in economics and other social sciences using the archive of micro-data available at the Centre.

**What is offered?**

In 1998, CEPS/INSTEAD has been identified by the European Commission as one of the few Large Scale Facilities in the social sciences, and, since then, offers researchers (both junior and senior) the opportunity to spend time carrying out their own research using the local research facilities. This programme is currently sponsored by the European Community’s 6th Framework Programme. Grants cover travel expenses and on-site accommodation. The expected duration of visits is in the range of 2 to 12 weeks.

**Topics**

The major resource offered to visitors is access to a series of internationally comparable longitudinal surveys on living conditions at the household and individual level. The anonymised micro-data provide information on wages and income, health, education, employment and professional activities, accommodation, social relations,... Comparable micro-data are available for EU countries, Central European countries, as well as the USA. These data offer opportunities to carry out research in fields such as survey and panel data methodology, income distribution and welfare, income and poverty dynamics, multi-dimensional indicators of poverty and deprivation, gender, ethnic and social inequality, unemployment and labour supply behaviour, education and training, social protection and redistributive policies, fertility and family structures, new information technologies in households and firms, ...

**Who may apply?**

All individuals (doctoral students as well as experienced academics) conducting research in an institution within the EU-25 or an FP6 Associated State. IRISS-C/I can be meeting place for groups of researchers working on a joint project. We therefore encourage joint proposals by two or more researchers.

For more detailed information and application form, please consult our website: [http://www.ceps.lu/iriss](http://www.ceps.lu/iriss) or contact us at

IRISS-C/I, CEPS/INSTEAD  
BP 48, L-4501 Differdange, G.-D. Luxembourg  
Tel: +352 585855 610; Fax: +352 585588  
E-mail: iriss@ceps.lu