

Free Entry vs Admission Tests in Belgium

Reflecting on how they could compare in terms of (In)equity

Do not quote

Comments are welcome

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In order to properly assess the relevance of resorting to a selection regime based on admission tests is it not sufficient to show that these tests produce errors or are socially biased. What matters it to show that they are more (less) problematic than the current selection mechanisms. The lines hereafter expose a first – very preliminary-- attempt to compare the two selection regimes regarding the (in)ability to make graduation independent of parental education, in particular mother diploma. They are based on the exploitation of 3 sources of Belgian micro-data.

[1]. Using the 2001 Labour force survey (LFS), we first compute the graduation rates among the young (25-35) Belgian adults. Results are reported on the last line of Table 1 below.

[2]. We then estimate the impact of mothers' diploma on the likelihood of graduation ($Y=1$ vs $Y=0$) at

- tertiary education level (either Bachelor or Master) – first part of Table 1;
- master/university level (Master) -- second part of Table 2.

The regression results are reported in columns labelled 'FREE ENTRY' . Coefficients reflect the degree of (in)equity characterising the **current** selection regime (no admission tests, but gradual selection). Negative values, reported in Table 1, capture the reduction of graduation rates when moving from those with a very well educated mother towards those whose mothers are less educated;

[3]. In order to simulate what would happen with admission tests (AT), we resort to the 2000 Pisa standardized test scores (3 topics, maths, science and reading, pooled) administered to representative samples of 15-year-olds Belgian pupils.

We compute **the percentiles** corresponding to the graduation rates observed among young adults, and computed with the LFS data (see point [1] & last line of Table 1). E.g. P61 is the score below (above) which 61% (39%) of the 15 year-olds achieved in PISA.

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We then assume that under an admission test regime (AT) **all** pupils above the thresholds defined by these PISA percentiles will eventually graduate. By construction thus, the change of selection regime, from free entry (FE) to admission tests (AT), does not change the overall graduation rates. But it eliminates drop-out among those who passed the test.

Under those assumptions, we reestimate an equation similar to the one exposed in section [2], using only our PISA data. We regress our graduation dummy ($Y=1$ if score is above the threshold, $Y=0$ otherwise) on Mother's highest diploma. Results are reported in columns labelled 'ADMISSION TEST'. Like in [2], negative values capture the reduction of graduation rates when moving along the socio-economic scale.

Results:

The tentative conclusion would be that under a free entry (FE) regime (synonymous with progressive selection) graduation rates are *to be a bit more sensitive* to mothers' diploma. Gradients (or variation around the average graduation rates) seem to be more important than under the admission test (AT) regime; singularly when it comes to the master degree. In the case of Wallonia + Brussels, when graduation means getting a master degree, our estimates range from 26% to 26-25=1% under an AT regime. Under FE, they range from 67% to 67-55=12%.

Strictly speaking however, all that we have shown here is that graduation rates among young adults are slightly more influenced by the diploma of their mother than the likelihood of being in the upper tail of the distribution of PISA scores, at the age of 15.

*Table 1: Free entrance (FE) vs admission conditional on passing an early admission test (AT)
Sensitivity of graduation rates to mothers' education*

| | GETTING A BACHELOR OR MASTER DEGREE | | | | GETTING A MASTER/UNIVERSITY DEGREE | | | |
|---------------------------------------------------|-------------------------------------|---------------|-----------------|---------------|------------------------------------|---------------|-----------------|---------------|
| | FLANDERS | | WALLONIA & BXL | | FLANDERS | | WALLONIA & BXL | |
| | ADMISSION TEST! | FREE ENTRY | ADMISSION TEST! | FREE ENTRY | ADMISSION TEST! | FREE ENTRY | ADMISSION TEST! | FREE ENTRY |
| Ref= Mothers with university/master degree | 41,63% | 80,00% | 53,53% | 76,19% | 19,66% | 70,00% | 26,38% | 66,67% |
| 1. Bachelor | 5,86% | -4,71% | -5,07% | -0,37% | 2,77% | -30,00% | -4,36% | -21,61% |
| 2. Upper secondary | -8,86% | -12,74% | -17,81% | -16,19% | -5,82% | -39,64% | -11,44% | -35,24% |
| 3. Lower secondary | -9,48% | -28,87% | -25,35% | -35,74% | -5,36% | -55,71% | -13,76% | -48,69% |
| 4. At most primary | -26,05% | -42,50% | -36,79% | -41,98% | -13,88% | -54,37% | -19,93% | -46,93% |
| 5. No degree | -35,07% | -67,65% | -46,35% | -55,78% | -18,02% | -68,77% | -25,42% | -54,42% |
| Average access rate | 39,74% | 39,74% | 39,93% | 39,93% | 17,32% | 17,32% | 18,73% | 18,73% |

* Pisa 2000, PSBH 2000, LFS 2001 our calculus

! see section [2] to get a full description of the underlying assumptions and estimation methods;