

Productive Skills, Positional Good, or Social Closure?

Three mechanisms for the education effect on the labour market across structural-institutional settings

Summary of main findings



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Central finding 1: *The vocational orientation of educational systems strengthens the effect of education on labor market outcomes for a mixture of reasons relating to both the human capital that is involved, and the institutionalized closure patterns that are in place.*

Central finding 2: *Generically oriented educational systems impose a positional model to education with a focus on trainability. Or, put otherwise, systems that are strongly vocationally oriented limit the positionality of education.*

Central finding 3: *We do not find evidence that in more tracked educational systems, employers recruit relatively strongly on the basis of productivity enhancing skills.*

Central finding 4: *Educational systems are not only related to the factual 'production' of inequalities, but also to the opinions that populations develop about income distributions.*

Short description of project

The project aimed to study *why* education is rewarded in labor markets, focusing on three broad groups of underlying mechanisms, and in particular whether the explanatory power of each mechanism differs across institutional contexts. Broadly speaking, questions are addressed like: does human capital theory, with its focus on skills acquired in education, offer a better explanation for educational effects in one setting than in another? Does education function as a positional good more in one country than in another? Does regulated access to occupations matter more in one setting than in another? We have examined variations between 'settings' with regard to the mechanisms that explain why education is rewarded. These settings come in different forms: countries, industries and occupations.

The three main mechanisms why education is rewarded in labour markets are the following. The first mechanism, education as an indicator of *productivity-enhancing skills* that are acquired (human capital), assumes that education is rewarded because people have acquired skills in education that increase their productivity, which employers are willing to reward. The second mechanism, education as a *positional good*, argues that it is not of prime importance what people have learned in education, but that a person's relative position in the educational distribution is crucial. Education is, according to this perspective, a 'sorting machine' rather than a 'skills matching machine'. The third perspective of *social closure* argues that, contrary to the other two perspectives, it is not primarily for 'functional' reasons that education is rewarded. Rather, formal regulations are set up to govern the allocation process to jobs in a way that excludes some persons while it includes others. Social closure theory in its most extreme form argues that allocation processes thus created are dysfunctional and prohibitive to social mobility. Milder versions of closure theory argue that, even though productivity/functional arguments may underlie labour market effects of official regulations, those regulations conflict with markets as the supply of workers is reduced and hence labour market opportunities are artificially protected.

The central premise of the project is that institutions do not only affect the strengths of effects of education on labour market outcomes, but also, and perhaps more importantly, the underlying mechanisms *why*. This central premise is novel, and has received attention in most, if not all publications that we wrote within the project. Also, other, mostly European, scholars have taken up this approach. The project falls under a broader agenda setting that addresses microlevel mechanisms in the contexts within which individual actors operate. Importantly, we have complemented existing studies also by focusing on how the legitimation of inequalities in a society, in the form of popular opinion, is related to the educational institutional structure of that society.

The project has embraced different research designs.

- First of all, both the PhD project of Thijs Bol and the work of the PI (Van de Werfhorst) has mostly concentrated on the combination of existing comparative survey data with newly created indicators of educational institutional structures and other macro-level variables. In these survey data the respondents are typically the 'employees'; which implies that this design focuses mostly on the supply side of the labor market.
- Second, in the PhD project of Thijs Bol a design has been implemented on the occupational level for two countries, where closure regulations and skill

demands were classified on the basis of various sources of data, which are then merged to individual-level earnings data. The variability in closure here is sought both between occupations and (two) countries.

- Third, not only countries but also industries have been compared, with industry-level data obtained from various sources merged with individual-level earnings data, both in the PhD project of Thijs Bol and the research of Van de Werfhorst.
- Fourth, Di Stasio's PhD project has implemented a vignette study collected among human resource managers working in the ICT industry in three countries: The Netherlands, Italy and England. This part of the project thus focused explicitly on the demand side of the labor market, in comparative perspective. In the vignette design, which is a quasi-experimental design, a combination of indicators of human capital, trainability and closure have been used as 'variables' at the level of fictitious applicants, after which HRM-managers were asked about the desirability and fit of the candidates.
- Fifth, the studies on public opinion on inequalities (PhD project Steijn and Postdoc Koçer) used survey data on large-N country comparisons, not only among employees but among whole populations.

Main Results

The results of the project are summarized in four broad central findings:

Central finding 1: *The vocational orientation of educational systems strengthens the effect of education on labor market outcomes for a mixture of reasons relating to both the human capital that is involved, and the institutionalized closure patterns that are in place.* We draw this conclusion based on several pieces of evidence.

In favor of the skills/human capital interpretation of vocational training systems:

- Bol & Van de Werfhorst (2013) and Andersen & Van de Werfhorst (2010) found that, in line with earlier studies, vocational education systems reduce youth unemployment rates, presumably because of the involvement of employers in the design of vocational education concerning the skills that are taught.
- Van de Werfhorst (2011d) showed that measured skill (independent of the effect of educational level) had a weaker effect on earnings in more strongly vocationally oriented educational systems. This is explained because educational attainment itself is strongly related to a clearly defined and signaled package of skills, leaving little need for additional selection on skills.
- Similarly, DiStasio (2013) found that, in countries with poorly developed vocational training programmes (i.e. Italy and England in her vignette study), employers more strongly appreciate alternative indicators of skill, in particular grades. By contrast, reliance on grades is not necessary in the Netherlands, where strong connections between the educational system and the labour market give a clear signal to employers.
- In the Netherlands, DiStasio (2013) found that an appropriate field of study is more relevant in the Netherlands than in Italy or England.
- Barone & Van de Werfhorst (2011) found that measured skill, particularly skills of a work-specific nature, was better able to explain the effect of education on earnings in Germany and the Netherlands than in the UK and the USA. This

conforms to the hypothesis that it is through work-relevant skills that education is rewarded, particularly in countries with strongly developed vocational sectors (i.e. Germany and the Netherlands).

- DiStasio (2013) argues that Dutch employers recognize highly standardized educational qualifications, considering collaborations with school and universities all the more important. Well-developed schools-employers linkages in the Netherlands serve as an effective entry route into the labour market, confirming that in vocationally-oriented educational systems employers' involvement in the design of curricula and in the provision of in-firm training increases their awareness of the specific skills possessed by school leavers.
- Van de Werfhorst (2011a) showed that overschooling is more strongly rewarded in industries where education functions as indicator of acquired skills. This fits the human capital understanding of education because productivity is related to individuals, not to jobs, in this perspective.

In favor of a closure-based understanding of vocational training systems:

- Barone & Van de Werfhorst (2011) found that the 'added value' of work-specific skills over general cognitive skills, which was strong in Germany, became much weaker once other variables were controlled that relate to patterns of formally or informally regulated access to occupations, in particular social class background, industry, occupation, firm size, and supervisory status. This means that part of what was usually attributed to a skills-oriented understanding of vocational education, is in fact produced by allocative processes that fit neatly with a closure perspective of regulated access to the labor market.
- Bol (2013) confirmed that education is rewarded more in vocationally orientated educational systems partly because degrees function particularly well as a form of institutionalized social closure. Vocationally oriented educational systems incorporate strongly occupation-specific *degrees*. The reason that education has a stronger effect on labor market outcomes when educational systems confer more vocational degrees is because these degrees are more effective in establishing and maintaining social closure. Highly occupation-specific vocational qualifications restrict the supply of access to occupations, thereby generating a wage premium for vocational degree-holders, especially in countries with strongly developed vocational training systems.
- DiStasio (2013) found that a strong stratification by educational credentials was found in the Netherlands, where qualifications represented a badge for entry into a segmented, predominantly occupational, labour market. This is explained by the forms of regulation that were rubricated under the closure perspective.

Central finding 2: *Generically oriented educational systems impose a positional model to education with a focus on trainability. Or, put otherwise, systems that are strongly vocationally oriented limit the positionality of education.* The implications of a positional model of education are that (1) education is seen as an indicator of trainability rather than of acquired skills, and (2) that systems with poorly developed vocational degrees drive people up into the higher echelons of the system, leading the educational expansion and even overschooling. This conclusion is based on the following pieces of evidence:

- If educational levels are ranked according to their labour market value for children's generations relative to their parents' generation, educational decision

making in the United States was more strongly dependent on such a relative change of value of education than in the Netherlands. Thus, in the USA, students made educational decisions more strongly in line with the relative value of education to avoid downward mobility, whereas in the Netherlands the relative value was less important (Van de Werfhorst 2009).

- Bol (2011, 2013) showed that, with educational expansion, education became more positional, using data on a wide range of countries. Educational attainment measured in a relative way (i.e. the relative score within one's cohort in one's country) gets a stronger statistical association to wages and occupational status if more students acquire tertiary degrees. No such pattern was found for a fixed measurement of educational attainment in years. Nor was evidence found that the positional good mechanism is more important when there is more technological innovation or when the industrial composition changes.
- Van de Werfhorst (2011b) showed that overschooling is more prevalent in countries with a poorly developed vocational training system. This is in line with the positional model where people would be willing to attain a level of education even if they don't need the skills, but just need to be 'on top of the others'. This leads to a reinforcing process of educational expansion and presumably overeducation and qualification mismatch.
- Van de Werfhorst (2011a) demonstrated that overschooling is more prevalent in industries (in the Netherlands) where a lot of training is offered, and when it is observed, it leads to relatively low returns. So industries with a 'training culture' treat education as a positional good for which employers don't have to pay if employees take up jobs below their level of schooling. This conforms to the notion that productivity is related to jobs, not to individuals; a model of education that sees education as an indicator of trainability rather than skills.
- DiStasio (2013) found that a relevant field of study (college major) was less important in England and Italy than in the Netherlands. This can be explained by the fact that potential employees are mainly judged according to their trainability rather than their acquired skills (and alternative indicators of trainability and skills were available to employers in the vignettes, such as grades).

Central finding 3: *We do not find evidence that in more tracked educational systems, employers recruit relatively strongly on the basis of productivity enhancing skills.* This conclusion is based on two research designs.

- Bol & Van de Werfhorst (2011) and Bol (2013) examined whether officially completed degrees mattered for occupational attainment independent of years of schooling. Degree effects were stronger, rather than weaker, in countries with more strongly tracked educational systems.
- By examining partial effects of educational level and measured literacy skills, it appeared that the strength of the effect of skills (=human capital) is independent of the tracked nature of educational systems (Van de Werfhorst 2011d).

Central finding 4: *Educational systems are not only related to the factual 'production' of inequalities, but also to the opinions that populations develop about income distributions.* This conclusion is based on the following evidence:

- Koçer & Van de Werfhorst (2012a; 2012b) demonstrated that the dispersion of opinions on income redistribution is larger in societies with a more strongly

tracked educational system. The argument that is put forward in this work is that, during the phase when opinions and attitudes are formed, tracked systems impose upon students an awareness where they will end up in the social class distribution, whereas comprehensive systems create ignorance (or hope) among all students. If students are better able to predict where they will end up, it is likely that their opinions are shaped according to their future position. Hence, we find larger dispersions (among adults) in countries with tracked systems.

Inequality attitudes are also related to union membership (Checchi, Visser & Van de Werfhorst 2010), implying that more divergent attitudes may also lead to more divergent recruitment patterns towards the trade unions.

Publications resulting from the project

Bol, Thijs (2013). *Why does Education pay off? Relations between institutional context and the mechanisms by which education pays off in the labor market*. PhD Dissertation, University of Amsterdam, defended 8/3/2013.

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