



The GAPS Think Piece – 24

Equity in tertiary education: Relevance and data availability across OECD countries

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Introduction

Equity and inequality are receiving considerable attention in current policy discussions. A recent OECD (2015 a) report showed that income inequality in OECD countries is at its highest level since more than 30 years ago, and wealth is even more unevenly distributed. This harms social cohesion, creating a society where many people feel they are treated unfairly. But it also harms economic growth, by preventing children from low-income families from investing in their education and improving their skills. In fact, the report points out, a lack of real educational opportunities for the less privileged is the main mechanism through which income inequality translates into reduced economic growth.

Nevertheless, the recent OECD report devotes much less attention to inequality in higher education than other education levels. The recommendations focused on early childhood, school drop-out and lifelong learning. Indeed, interventions at an early age are probably much more effective to reduce educational inequality than interventions in later stages of education. Higher education inherits much of the inequality which exists in general in society, and which affects children since their early years. Nonetheless, much can be done within higher education to contribute to a more equitable society (OECD, 2008).

A possible reason why tertiary education is receiving relatively little attention in the debate on equity could be the scarcity of comparable international data. This, however, may be changing. Equity in tertiary education received much attention in recent years by the Indicators of Education Systems (INES) Network, the OECD network engaged in the development of comparative international education indicators which are ultimately published in the yearly compendium *Education at a Glance*.



Comparable international data are of great importance to policy-makers. Although they are often not suitable for micro-level policy evaluations, they allow the identification of countries with desirable outcomes, thus providing a base for governments to exchange their experiences and practices. They can be used by the public at large to keep governments accountable, by highlighting gaps between their own and other countries. Furthermore, such data add to the general evidence base that researchers and stakeholders can use to build their arguments to improve policies and practices.

Two OECD surveys on equity indicators in tertiary education

This paper draws some lessons from two surveys sent by the INES network to its member countries, which had officials answering them (typically from the ministry responsible for tertiary education or from the national statistical office). Hence, the responses to the survey represent the official position of the member countries. Both surveys were returned by the large majority of INES countries: 34 responses were received for the first survey, and 31 for the second one. The INES network included, at the time of sending these surveys, the 34 OECD countries plus Brazil and Russia. The official documents summarising the results of the two surveys (OECD 2015 b, 2016 a) have been very recently de-classified, opening the opportunity to publicise their content.

The first survey, the INES Priority Rating Exercise 2015, is part of a periodic survey series run by the INES Network to establish priorities over its own indicator development work. In 2015, following a decision to expand the range of OECD indicators on tertiary education, a special section was included in this survey to evaluate the relevance of an extensive list of tertiary education indicators.

Indicators on equity in tertiary education scored at the top, particularly in terms of relevance. This could lead soon to the development of new international indicators on equity in tertiary education, which could complement existing sources of information (mainly, EUROSTUDENT and the OECD Survey of Adults Skills) and possibly overcome some of their limitations.¹

¹ EUROSTUDENT is a European network running a survey on the socio-economic background and on the living conditions of students in European countries. Some important limitations are the coverage (only European countries are included) and the low response rates in a number of countries (Hauschildt, Gwosć, Netz, & Mishra, 2015, App. B). The OECD Survey of Adult Skills collects some information on the socio-economic background of adults and on their educational attainment, which is used in analyses of intergenerational educational mobility (OECD, 2016 b, Ch. A4). However, this survey is not designed for



The second survey was launched after it had been established that developing indicators on equity in tertiary education was a top priority. Countries had to indicate for which of 18 equity dimensions (including, for example, parental education and immigrant background) data were available, and also which dimensions they found most relevant for their policy purposes. This information is very useful for the study of equity in tertiary education, as it sheds light on what countries consider important and on what they measure, which in turn affects the policy actions that can be taken (see Koshy, 2016 for Australia as an example). As noticed by Clancy et al. (2007), we have much to learn from an analysis of which categories of data are collected and *not* collected, as national information systems are closely related to the identification of critical identities (for example members of some ethnic groups, or children of workers in certain professions) and to the definition and understanding of social diversity in different countries.

Equity is a top priority in the development of indicators in tertiary education

The INES Priority Rating Exercise asked OECD countries to rate the relevance and methodological robustness of 34 potential tertiary education indicators, with the aim of identifying those that could actually be turned into cross-country statistics available to the international community. These indicators were identified through a debate between the OECD Secretariat and the involved countries, and they covered a broad selection of tertiary education inputs, outputs, and process and performance areas. For example, the list included potential indicators on graduates' labour market outcomes, the career development of doctorate holders, massive open online courses (MOOCs), ICT equipment in the classroom, the pathways between secondary and tertiary education, admission requirements for tertiary education, shares of academic staff by demographic and professional characteristics, academic staff salaries, funding models, involvement of the private sector in tertiary education governance and funding, etc. In short, the list of indicators was broad and comprehensive, although, of course, it could not be exhaustive.

The indicators were divided in three broad areas: equity, labour market outcomes and the organisation of tertiary education. All the five indicators relating to equity were rated by more than 80% of

this topic, and as a result researchers face a difficult trade-off between working with small sample sizes or including in the sample older adults, which have entered tertiary education several decades ago.



countries as “relevant” or “essential” for national policy purposes, and two by more than 90% of countries (Table 1).

Table 1 Equity indicators and percentage of OECD countries indicating them as “relevant” or “essential”

Drop-out rates of first degree programmes, by socio-economic background	(95%)
New entrants and graduates in first degree programmes, by socio-economic background	(92%)
Public support (in form of grants or public loans), by socio-economic background	(87%)
Existence of special admission policies for students with low socio-economic background	(87%)
Education attainment, distribution of literacy proficiency skills, by socio- economic background	(83%)

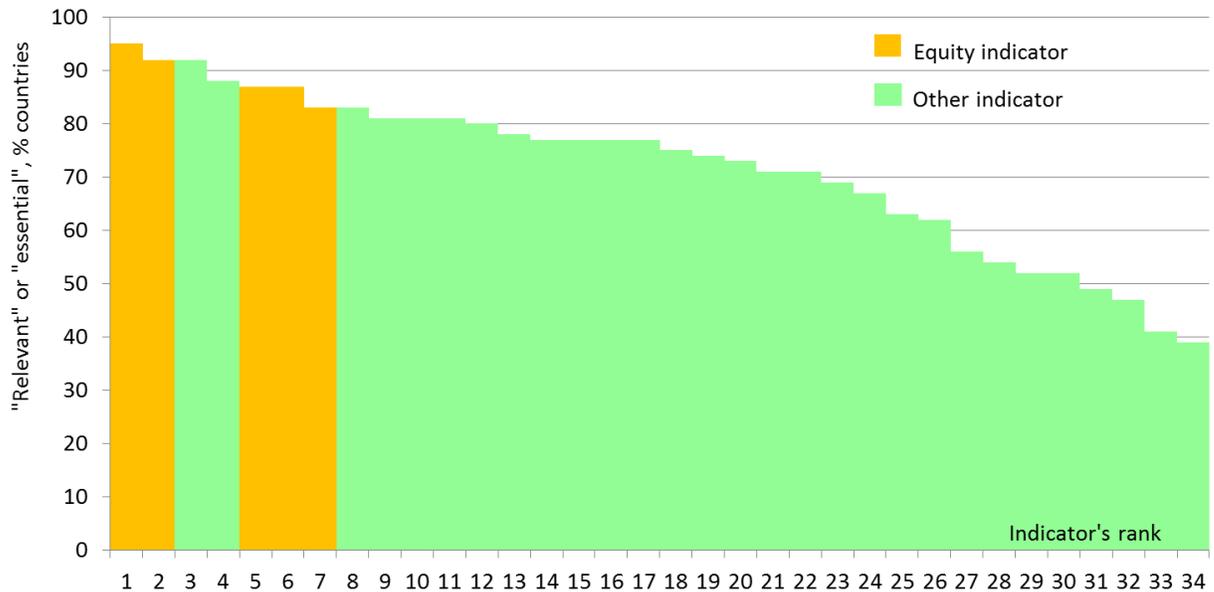
Source: OECD (2015 b).

To put the values in perspective, consider that the average indicator had been considered “relevant” or “essential” by only 71% of the responding countries. The full distribution is shown in Figure 1, which shows that the equity indicators were consistently rated at the top. Only two other indicators were ranked better than some of the equity ones, both related to labour market outcomes: earnings and employment of graduates a few years after graduation, and employment rates by tertiary education level. This shows that labour market outcomes are also a priority for governments in terms of tertiary education data collection. However, this result is also contingent on some concurrent statistical developments: the increased availability of longitudinal data, making it possible to follow graduates in the first years after graduation; and the development of a new ISCED classification for educational levels, which required a re-mapping of many existing indicators (like employment rates) into the new classification.

In sum, these results show that governments are concerned by the lack of internationally available indicators on equity in tertiary education, and they are determined to act through the tools of international cooperation. Building a solid knowledge base on equity in tertiary education, in turn, is a necessary condition for governments to start learning from the policies and practices of other countries.



Figure 1 Distribution of tertiary education indicators by percentage of OECD countries indicating them as “relevant” or “essential”



Note: Percentages are calculated based on the 34 responding countries.

Source: Own elaboration based on OECD (2015 b).

Governments measure what they most worry about

Very often, in the equity debate great importance is given to the construct of “socio-economic background”, often measured by an index. Typical equity measures can be the proportion of new entrants, graduates or completers by socio-economic background. In turn, this construct is multidimensional, something that becomes clear when studying the data systems of multiple countries. The concept and the measurement of equity both depend on the identification of critical identities and on the understanding of social diversity. These are different in different countries. For example, Clancy et al. (2007) note how national information systems collect data on (among other dimensions) religion in Israel, racial identities in the USA, and socio-professional categories in France.

The existence of multiple equity dimensions was at the core of the discussion between OECD countries on developing indicators on equity in tertiary education. It was necessary to agree on equity dimensions that are sufficiently relevant, and for which data are available, across countries. For this reason, a survey was sent to OECD countries to rate the relevance and assess the data availability in 18 equity dimensions.



For each dimension, countries assessed relevance and data availability for entrants in tertiary education, graduates and also for educational attainment among the adult population. In the remainder of this section, we will focus on the results concerning entrants, but focusing on graduates or attainment would yield very similar results.

The countries' responses indicate that their choices, in terms of what information to collect, are closely related to what they consider politically relevant. There is a striking correlation ($r=0.93$) between the proportion of countries that declared that they have available data and that consider the dimension relevant, across the 18 equity dimensions under consideration. Quite obviously, some basic dimensions such as age and gender are considered relevant by all countries, and virtually all countries reported that they collect data on them. But the correlation holds equally strongly across the other dimensions as well (Figure 2). This is probably due both to the efforts of governments to measure those things they most worry about; and to the influence of existing indicators on the policy discussion and evaluation, and eventually on the policy agenda.

What data is collected, and what are the implications for international indicator development?

In terms of data availability, the dimensions on which data on new entrants are most often available (excluding gender and age) are in the following order: parents' education, student's work status, provenance from a rural area, immigration background, disability, the presence of dependent children, student's income and parents' occupation.

The dimensions with broadly available data will not, however, necessarily make good international indicators. For example, many countries collect some data on new entrants with disability, but the underlying definitions are not standardised across countries, making the development of an indicator difficult. As another example, students' work status and income can be considered an indication of students' need for support in certain countries, but cross-country differences in the proportion of working (and earning) students can also be due to cultural and legal factors. In contrast, the definitions of parents' education are relatively standard world-wide (thanks to the work underlying the ISCED classification), and their interpretation is quite straightforward; this makes potential indicators on parents' education more attractive.



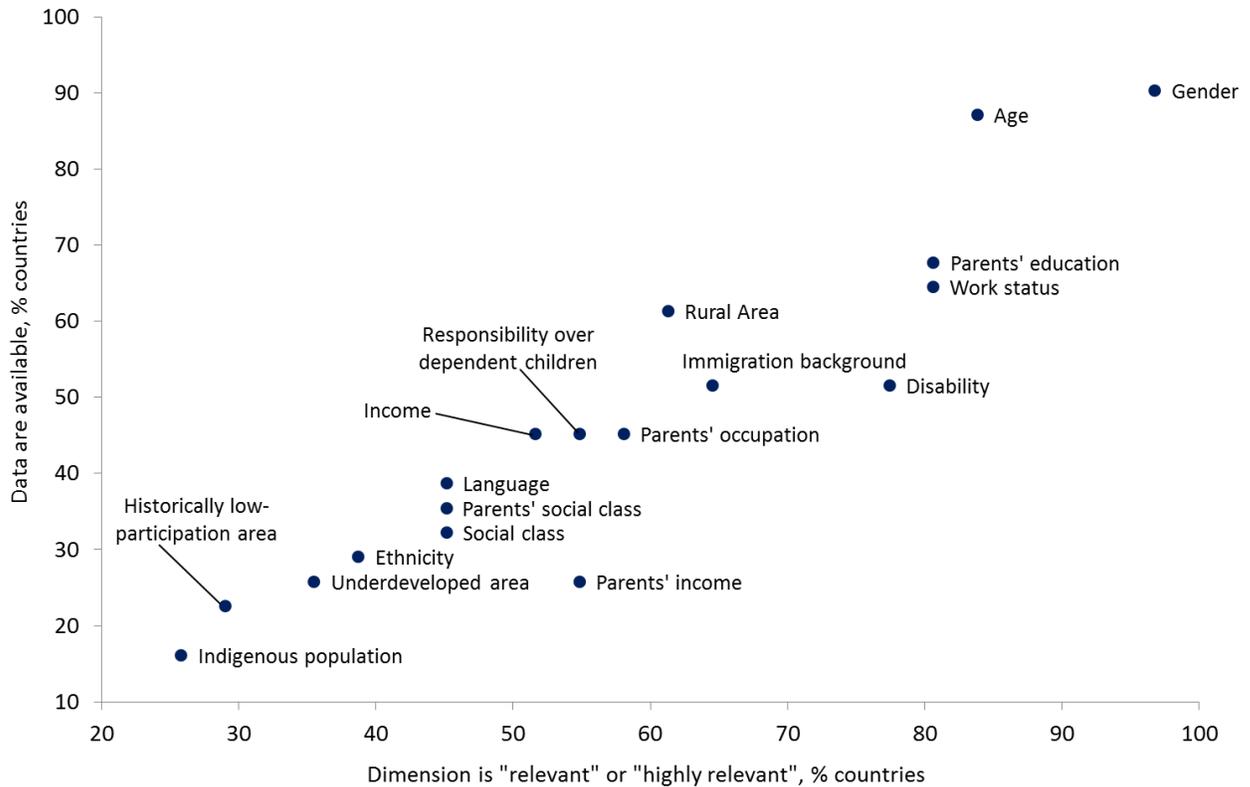
Hence, the choice of which indicators to develop will depend not only on data availability, but also on the cross-national comparability of the underlying concepts and definitions.

In addition, there are differences across countries in terms of equity priorities, and in terms of the data they collect. For example, only a few countries indicated that they are collecting data on whether tertiary new entrants belong to the indigenous population, but this dimension seems to be quite relevant outside Europe, given that four out of five countries that collect data on this dimension are non-European. Ethnicity presents a similar situation, with five out of eight countries with available data being non-European. In contrast, no non-European country indicated that it was collecting data on new entrants by parents' income (four European countries do); and many more European countries (19) collect data on parents' education than non-European countries (4).

An implication of these differences is that international cooperation can proceed along parallel streams of work in terms of indicator development. On one side, it is imperative to develop indicators that are available across a large number of countries (for example, entry rate by parents' education), so that the range of national experiences that can be compared becomes as wide as possible. On the other side, smaller groups of countries can cooperate to develop indicators on dimensions on which they share a common interest, for example in the case of indigenous population or ethnicity, without the need to involve those countries that are less interested in these themes.



Figure 2 Relationship between data availability and relevance for national policies across 18 equity dimensions



Note: When the social and personal characteristics displayed in the chart refer to parents, this is explicitly indicated; in all other cases, for example “work status”, “income”, or “responsibility over dependent children”, they refer to the students. The three indicators ending with “area” refer to the students’ residence before entering higher education. Percentages are calculated based on the 31 responding countries. Source: Own elaboration based on OECD (2016 a).

Conclusions

Some insight into the international work of indicator development in the area of equity in tertiary education has been recently given by the de-classification of some official OECD documents. These documents present the results from two surveys sent to the OECD countries, Brazil and Russia. Officials from these countries answered questions on the prioritisation of tertiary education indicators, and on data availability and national relevance for a set of equity dimensions.



Overall, the following lessons can be learned from the analysis of these survey results:

- There is a very strong commitment across OECD countries to improving the knowledge base on equity in tertiary education. This is good news for everyone who is concerned with this topic. Better data will help governments learn from each other, and the broader public to keep the governments accountable, to suggest new policies and to implement new practices based on the new evidence.
- Data availability and political relevance of indicators are closely related, which probably reflects a two-way relationship. On one side, governments measure what interests them, so that some measures exist because the underlying concepts are politically relevant; on the other side, existing indicators (for example, the share of new entrants for some critical equity groups) guide policy discussion and evaluation, increasing their own policy relevance.
- There are some equity dimensions for which data seem to be broadly available across countries. This is good news, although the development of indicators will depend not only on the availability of raw data, but also on the comparability and interpretability of the underlying concepts and definitions.
- Countries differ in their perception of what is relevant to equity in tertiary education. For example, non-European countries are more often concerned with ethnicity and indigenous populations than European countries, which are in turn more often interested in the social background and income of students' parents. Therefore, while it remains imperative to develop some equity indicators with a broad country coverage, it is possible for countries with more specific common interests to work in smaller groups on the respective themes.



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References

- Clancy, P., & Goastellec, G. (2007). Exploring Access and Equity in Higher Education: Policy and Performance in a Comparative Perspective. *Higher Education Quarterly*, 61(2), 136–154.
- Hauschildt, K., Gwośc, C., Netz, N., & Mishra, S. (2015). Social and Economic Conditions of Student Life in Europe. Synopsis of Indicators | EUROSTUDENT V 2012–2015. Bielefeld: W. Bertelsmann Verlag GmbH & Co. KG.
- Koshy, P. (2016). Promoting Equity in Higher Education: The Measurement and Reporting of Disadvantage in Australia (The GAPS Think Piece No. 12). GAPS.
- OECD (2008). Tertiary Education for the Knowledge Society (Vol. 2). Paris: OECD Publishing.
- OECD (2015a). In it together - Why Less Inequality Benefits All. Paris: OECD Publishing.
- OECD (2015b). Progress Report with the Development of Indicators on Tertiary Education and Outcomes of the Third INES Rating Exercise (OECD official document No. EDU/EDPC/INES/WP(2015)16). Paris: OECD.
- OECD (2016a). Ad-hoc Survey on National Preferences and Data Availability on Equity in Tertiary Education: Results (OECD official document No. EDU/EDPC/INES/WP(2016)19). Paris.
- OECD (2016b). Education at a Glance 2016. OECD Indicators. Paris: OECD Publishing.

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