

The OECD and “Education at a Glance”

# Providing Educational Data for Policy Making

A notable contribution of the OECD to policy development is the annual report “Education at a Glance (EAG)”. This informs the discourse on education, helping policy-makers, educators, researchers, and other stake-holders build more effective and equitable education systems. In this article, we summarize the general trends in education which the most recent “Education at a Glance 2017” revealed, as well as the three new indicators and areas of focus that it introduced. The EAG annual report covers all levels of education, but here we focus on trends in tertiary education which was given greatest attention in the latest edition.

The 2017 edition of “Education at a Glance” covers all thirty-five high-income OECD member countries. It also analy-



**Authors |**

**W. John Morgan**, Emeritus Professor, University of Nottingham; Honorary Professor, School of Social Sciences, and Leverhulme Emeritus Fellow, Wales Institute of Social and Economic Research, Data, and Methods, Cardiff University, Wales, United Kingdom.

MorganJ74@cardiff.ac.uk

**Ian White**, International Affairs Officer at the World Bank’s United Kingdom Office, London.

iwhite@worldbankgroup.org

ses eleven partner countries that represent a broader range of economies from lower-middle income to high income countries. These are Argentina, Brazil, China, Colombia, Costa Rica, India, Indonesia, Lithuania, the Russian Federation, Saudi Arabia and South Africa. In addition to the presentation of core data and analysis, the report has a new focus on fields of study, investigating both trends in enrolment at upper secondary and tertiary level, student mobility, and labour market outcomes for the qualifications obtained. It also introduces for the first time an entire chapter on the United Nations’ Sustainable Development Goals (SDGs).

### Higher education participation rates

In recent decades most OECD countries have seen significant increases in the acquisition of formal educational credentials, especially among women and the young. The OECD average shows that the proportion of those 25–64 years old with a tertiary degree has risen from 22 percent in 2000 to 36 percent in 2016 (OECD 2017, p. 45). This increase is even more pronounced among young adults (25–34 years-old), who have benefited from the most recent expansions in higher education provision in OECD countries. Since

2000, the proportion of those with a tertiary degree has increased by 17 percentage points, reaching 43 percent of the young adult population by 2016. This means that whereas in 2000 upper secondary education was the highest level of attainment for most young adults, today the largest share holds a tertiary degree.

However, although higher education enrolment and completion has surged, disparities in access and outcomes persist. For example, although women now comprise most first-time graduates from tertiary education in OECD countries, other gender disparities in outcomes and fields of study continue, as we show below. Again, governments and higher education institutions can do more to ensure students from poor socio-economic backgrounds have access to higher education. As the EAG 2017 states, parents’ educational attainment is a much stronger predictor of an individual’s educational attainment than age or gender.

Nevertheless, the trend is in a positive direction – when compared with older adults (45–59 years-old), younger adults (30–44 years-old) are more likely to have parents educated to a tertiary level. It is noted that tertiary level policies that combine financial aid with measures to overcome non-financial obstacles are most effective in improving equity and in increasing opportunities for disadvantaged students. Again, financial support helps offset the burden of the high

tuition fees charged in certain tertiary institutions – 75 percent or more of students in Australia, England (as education is a devolved responsibility in the United Kingdom, some OECD data and analysis covers only England), and the United States benefit from public loans or scholarships (OECD 2017, 213), though these are also the countries in which tuition fees are among the highest for OECD countries.

### Funding for higher education

It is obvious that the cost of higher education is a significant financial investment for governments and increasingly so for individual students and their families. Tertiary education is expensive compared with other levels of study – in 2014, the average annual cost of a student in a tertiary education institution in OECD countries was USD \$16,143. This was nearly double the USD \$8,733 average cost per student for primary education (OECD 2017, p. 191). In some of the most expensive countries examined by the EAG 2017, such as Japan and the Netherlands, average personal investment in tertiary education exceeded USD \$100,000 when direct and indirect costs were considered (OECD 2017, p. 119). Such expense means that all those involved, even the well-off, must consider personal or family investment carefully.

Governments invest in higher education because they recognize its central role in building an educated workforce and developing a country's research base, as well as its broader social capital value. Put simply: "...education is a key area for governments to demonstrate to the international community that they are building a modern state," (Verger/Altinyelken/Novelli 2018, p. 10). Despite the challenging economic conditions in some countries and competing budget priorities, financial support for higher education has increased at a steady pace. At tertiary level, expenditure increased much faster than at the preceding levels of education, rising on average by 18 percent between 2008 and 2014 (OECD 2017, p. 174).

In the context of increased education funding, governments also aspire to make education accessible and affordable to all, while meeting the growing financial demands of higher education institutions. The EAG 2017 shows that individual countries take different policy approaches to achieving this balance.

For purposes of analysis, it places countries in four groups according to two factors: level of tuition fees and the support available through the country's student financial aid system. For instance, the Nordic countries have no tuition fees while most students also benefit from some further public financial support. On the other hand, countries such as Australia, Canada, England (UK) and the United States have tuition fees, but most students receive some form of public loan support (OECD 2017, 217).

Across the OECD members and partner countries, public investment provides on average 70 percent of national expenditure on tertiary education (OECD 2017, p. 190). Although there is a wide variation across the membership, only eight of the countries covered by the EAG 2017 had public investment of less than 50 percent of the total cost. The lowest was the United Kingdom (28 percent), while Finland was the highest (96 percent). In all but three countries (the Czech Republic, Finland and Sweden), households contributed the largest share of the remaining 'private' expenditure, which also includes investment from business and other private sources.

### Not always following the money

Students are aware increasingly of the exchange value of their degrees in terms of employment prospects and ability to recoup their investment. One of the main conclusions of the EAG 2017 is that universities do not necessarily provide, nor prospective students identify those fields of study, which provide the greatest labour market opportunities. Although employment rates are highest for tertiary-educated adults across OECD countries (84 percent on average), such rates vary according to field of study. Employment rates are lowest for graduates in the arts and humanities and broad social sciences (81 percent); and highest for graduates in information and communication technology (ICT) graduates (88 percent) (OECD 2017, p. 95). For STEM graduates overall (a broad grouping, which includes fields in science, technology, engineering and mathematics), the rate is 86 percent (OECD 2017, p. 88).

Yet there is a disconnection between these indications of employment prospects and tertiary enrolment figures. The data given in the EAG 2017 show that many STEM subjects fail to attract students:

approximately 23 percent of new entrants into tertiary education study business, administration, and law compared with 16 percent in engineering, construction and manufacturing, and 6 percent in the natural sciences, mathematics and statistics. Information and communication technology (ICT), surprisingly given popular interest in the Internet and social media, attracts less than 5 percent of new entrants, the smallest share of a field of study. However, it yields the highest employment rate on average across the OECD countries – even exceeding 90 percent in about a third of them – a clear signal of a supply shortage (OECD 2017, p. 11).

### Higher education: a return on investment

Despite the cost of higher education, it represents a substantial return on investment. Across the OECD countries, adults with a tertiary degree earn on average 56 percent more than those with only an upper secondary education, while they are also more likely to be employed. This higher earnings rate has remained relatively stable, although with a very slight recent decline, since 2005 (OECD 2017, p. 107). Those with a tertiary degree are also the first to recover from economic downturns: employment rates for young adults in this group have returned to the levels reached before the 2008 financial crisis, while in several OECD countries, employment rates for those without a higher education degree have failed to recover fully (OECD 2017, p. 88).

The EAG 2017 also provides evidence that higher levels of educational attainment bring other positive economic and social outcomes. For instance, highly educated individuals generally have better health, a greater life expectancy and have a higher level of social engagement. For the state time and money spent on education is an investment in human capital. Higher education returns can take the shape of higher tax revenues, a more skilled workforce and may support the integration of migrants (Morgan/White 2015). Education is also the foundation for social mobility, offering people an opportunity to acquire greater skills and thereby improve employment prospects, income, and economic security to a far greater extent than their parents may have experienced. An earlier article in this series explored some of the other public good characteristics of higher education (Morgan/White 2014).

### Bridging the gender gap

In 2015 more women than men graduated from tertiary education: an average of 57 percent of first-time graduates in OECD countries were women (OECD 2017, p. 67). However, women continue to face barriers to realizing the full benefits of higher education in equal measure with men – from under-representation in certain fields of study, to poorer returns on investment and in labour market outcomes. On average across the OECD countries, the private, net financial return on a higher education degree for a woman is about two-thirds that of a man: USD \$252,100 return for a man compared with USD \$167,400 for a woman (OECD 2017, p. 120). This disparity may be attributed to a variety of factors: such as women's lower earnings, higher unemployment rates, greater share of part-time work and differences in the choice of field of study. For example, the salaries of tertiary-educated women are only 68 percent of those of tertiary-educated men (OECD 2017, p. 106).

It may also be related to gender differences in the sectors where women work and the specific types of occupation they take up. Recent research from the United Kingdom provides the most comprehensive data set ever collected on the issue by any country. In early 2018, the United Kingdom government required all employers with at least 250 staff to report any difference between what they pay male and female employees. This showed that eight in ten companies and public-sector bodies paid men more than they did women. The data does not show whether women are paid less than men for the same work, but it did make clear that men were more likely to be appointed to highly paid roles.

There is also a gender gap in the chosen areas of study. Women count for approximately one in four entrants to engineering, manufacturing and construction, fields with good prospects for employment. They represent less than one in five in information and communications technology (ICT), the best performing sector for graduate employability. By comparison, they provide nearly three out of four entrants to degree programmes in medical-care and welfare; and in teaching they comprise seven out of ten in the profession (OECD 2017, p. 25). This is an important and yet under-researched aspect of gender differences in employment.

## Education and the SDGs

The 17 Sustainable Development Goals (SDGs) were adopted by the United Nations General Assembly in 2015. They represent the world's collective aspiration to end poverty, protect the planet and ensure prosperity for all. Unlike the former Millennium Development Goals, the SDGs are meant to apply to all countries. This makes monitoring progress in the primarily high-income OECD countries particularly important. It is notable that, while earlier editions of the EAG report have included editorials on the SDGs, the EAG 2017 is the first to devote a chapter to the subject.

Education is seen as a basic human right with significant instrumental value. It is claimed to build human capital and improve productivity, incomes, employability, and economic growth. A failure to deliver the SDGs' education agenda would place the achievement of the other goals in jeopardy. Yet even wealthy countries are not making the progress necessary. As related research published by the OECD shows, its members are currently closest to reaching targets on water, oceans, climate, bio-diversity, urban and city development, and poverty, but are still well short of the goals for education, gender equality, the economy and employment, and institutions, the last relating broadly to issues of governance and transparency (OECD 2017b, p. 1).

The Sustainable Development Goal on Education (SDG4) aims to: "Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all". This is to be achieved through the realization of ten targets, ranging from school enrolment, to the quality of education. Each target has several specific and measurable indicators to help track progress. It is important to note that not every target applies to each country. Instead: "... targets are defined as aspirational and global, with each government setting its own national targets guided by the global level of ambition but taking into account national circumstances" (UN, 2015, 13). The EAG 2017 reports

on each, but here we have considered those targets and trends most relevant to tertiary education.

## Conclusion

The EAG 2017 shows that OECD countries have been successful generally in guaranteeing adequate infrastructure and near-universal access to basic education. However, results related to learning outcomes are much more varied across the OECD countries. Gaps in learning according to demographics, particularly gender and socio-economic background also persist (OECD 2017a, p. 29). The report also shows that progress has been made across the OECD membership and its partners in the provision of and access to tertiary education, although again inequalities remain that need to be addressed.

It is important to remember that the OECD is not itself a policy-making body, let alone one that implements it. The "Education at a Glance 2017" continues the OECD's valuable practice of providing an annual digest of comparative educational data. This may then be used by its members and partners for guidance in educational policy-making; as well as by academics and others for independent comment and analysis. The OECD is in this way a guide to the setting of norms and standards, a role which it has in common with other public international organizations, such as the United Nations Educational, Scientific, and Cultural Organization (UNESCO), the International Labour Organization (ILO), the Commonwealth Secretariat, and the World Bank. Each of these organizations also publishes annual digests of educational data and analysis like the OECD's "Education at a Glance". An important difference is that such reports provide data and analysis on a global scale and not just for high-income and middle-income countries. Such additional data and analysis is crucial for education policy-making as a tool for achieving the United Nations Sustainable Development Goals. These other reports will be featured in further articles in this series.

## Literature |

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