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Abstract

Since UNESCO's Salamanca Declaration in 1994, inclusive education has progressively attracted attention in international debates around education policy. While some evidence exists on the positive impact that inclusive education reforms can have on the academic and personal outcomes of diverse students – and in particular of students with special education needs – limited information is available on the economic sustainability of such reforms. Starting from the literature on the correlations between education and individuals' life outcomes, this paper reviews the existing evidence on the potential benefits and costs of inclusive education reforms. Specifically, the paper discusses the evidence on the shortcomings of current education settings for diverse groups of students – with specific sections on students with special education needs; immigrant and refugee students; ethnic groups, national minorities and Indigenous peoples; gifted students; female and male students; and LGBTQI+ (which stands for 'lesbian, gay, bisexual, transgender, queer and intersex') students. It highlights the individual and societal costs deriving from the low academic, social and emotional outcomes of these students and the socio-economic costs these yield for societies. Where possible, the paper also presents evidence on the effects of inclusive education reforms on diverse student groups.

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Introduction

Inclusive education has become a core concept in education theory discourse over the last few decades. Indeed, various education systems have progressively considered or enacted policy reforms and changes to foster the inclusion of diverse and disadvantaged students. However, inclusion in education is not a recent concept, having been the subject of international debate as a driver of progress for educational policy since UNESCO's 1994 Salamanca Declaration. Inclusion in education aims to overcome exclusionary or segregational features of education systems and also presents key differences from practices of integration in education. Specifically, it is defined as a process that helps to overcome barriers to the presence, participation and achievement of all learners, irrespective of their personal characteristics (UNESCO, 2009[1]). It is about changing the system to fit the student, not changing the student to fit the system, because the 'problem' of exclusion is firmly the system itself, not the person or their characteristics (UNICEF, 2014[2]).

While research on inclusive education has traditionally focused on students with special education needs (SEN) (Messiou, 2016[3]), it has been increasingly sustained that inclusive practices can – and should – benefit all students, as students with special education needs (SEN) are only one of many historically marginalised groups (Cummings, Dyson and Millward, 2003[4]). Yet, most of the research still revolves around students with SEN and less frequently on other groups of students, such as immigrant and refugee students, students belonging to ethnic groups or LGBTQI+ students.

Part of the rationale behind inclusive education has a human right basis: inclusion should never be considered as a sacrifice or a privilege to be "earned" (Rioux, 2002[5]), but rather should be recognised as an intrinsic right. Thus, inclusion becomes a struggle against processes of exclusion and marginalisation affecting multitudes of people and especially the most vulnerable. However, education in general has a social and an economic rationale. Education is correlated to most of the key life outcomes of an individual: employment, earnings, poverty levels, physical and mental health, well-being, social-mobility, criminality and more (OECD, 2012[6]; Hanushek and Woessmann, 2007[7]; Hanushek and Woessmann, 2020[8]). Moreover, the level and quality of education that individuals receive have an impact on society in terms of increased GDP[1] growth, reduced healthcare costs and social spending, and improved social cohesion (OECD, 2006[9]). Inclusive education, specifically, has been shown to provide benefits for all students in improving the quality of education offered. It becomes more child-centred and focused on achieving good learning outcomes for all students, including those with a diverse range of abilities (UNESCO, 2009[1]). Inclusive education can also foster students' socio-emotional growth, self-esteem and peer acceptance, while helping to fight stigma, stereotyping, discrimination and alienation in schools and societies more broadly (UNESCO, 2020[10]). Another common argument in favour of inclusive education is an economic one: poverty reduction through improved education of disadvantaged students (UNICEF, 2014[2]).

Nevertheless, research and estimates on the potential gains and costs of reforms of inclusive education are extremely limited. Yet, such information would be valuable for governments and policy makers

[1] Gross domestic product (GDP) is the standard measure of the value added created through the production of goods and services in a country during a certain period. *Source*: https://data.oecd.org/gdp/gross-domestic-product-gdp.htm.

interested in implementing inclusive measures that can be efficient and sustainable for their countries. As an alternative to cost-benefit analyses, certain proxies might capture the advantages and benefits of a shift to more inclusive education systems. For instance, they could consider the personal and societal losses incurred due to the poor outcomes of diverse students in non-inclusive systems. Indeed, diverse groups of students often face challenges in mainstream education systems that lower their achievement and hinder their potential, and frequently report lower levels of social and emotional well-being in relation to their school experience (Brussino, 2020[11]; Rutigliano, 2020[12]; Mezzanotte, 2020[13]). Discrimination of this sort is based on gender, geographical location, socio-economic status, disability, ethnicity, language, migration, displacement, incarceration, sexual orientation, gender identity and expression, religion and other beliefs and attitudes (UNESCO, 2020[10]). The different forms of discrimination of these groups in education not only constitute a cost at the individual but also the societal level. However, there are also costs associated with reforms towards inclusive education, in terms of personnel and resources. The efficiency of these investments is often under discussion, due to the lack of evidence on the effectiveness of these interventions.

Thus, this paper aims to map existing literature on the limitations and challenges that education systems entail for diverse students, with a focus on the dimensions of diversity that are studied by the OECD's Strength through Diversity Project: i) special education needs; ii) immigrant and refugee background; iii) ethnic groups, national minorities and Indigenous background; iv) giftedness; v) gender; and vi) sexual orientation and gender identity (LGBTQI+) (Cerna et al., 2021[14]). Section 2 of this working paper analyses which academic, social, economic and societal outcomes are generally achieved in current education systems for each diverse student group. Where available, the paper also presents evidence on the effects or potential gains of inclusive education reforms, policies or school-level practices. While the evidence presented in the paper is generally not causal in nature, unless specified, it discusses relevant correlations and points our interesting results across literature. The intention is to flag barriers and challenges that affect vulnerable students, and highlight areas were more inclusive policies and practices could improve their overall well-being.

To conclude, the paper discusses challenges to be considered by researchers and policy makers to advance the discussion on inclusive education and its implementation within education settings. Specifically, it considers the lack of relevant data, the difficulties in estimating the costs and benefits of potential reforms towards more inclusive education systems, the consideration of intersectional issues and the challenging momentum created by the COVID-19 pandemic. Finally, the paper highlights the room for further advancement not only of the educational agenda, but also of the theoretical debates around inclusion issues.

1. Conceptualising inclusive education

Inclusive education is not a new concept and has been widely accepted as a necessary driver for educational policy since UNESCO's 1994 Salamanca Declaration. The emphasis then was on the need to reform education systems, which is possible only if mainstream schools become capable of educating all children in their local communities. However, this Declaration was exclusively directed at students with disabilities. It is only recently that inclusive education has begun to be understood as necessary for all learners by responding to current challenges implied by increasing diversity in the classroom and larger society (Ainscow, 2019[15]). This Section attempts to define inclusive education, providing a brief overview of the historic development of the concept and the different conceptualisations that exist, before discussing the possible implications of inclusive education in terms of the benefits and costs for individuals and societies.

1.1 Defining inclusive education

Inclusive education has been a key concept in education theory discourse, policy and practice throughout the last decades. Indeed, inclusion in education is not a recent concept. The first "World Conference on Education for All" held in 1990 by the United Nations was a response to preoccupations regarding inequalities in education, paving the way for other declarations and conventions (European Agency for Development in Special Needs Education, 2011[16]). UNESCO's Salamanca Declaration of 1994 emphasised the need to reform education systems, which can only be feasible if mainstream schools are capable of including and educating all children in their communities. This Declaration specifically targeted students with special education needs (or disabilities) and it is only recently that inclusive education has begun to be discussed as necessary to reach all learners by responding to growing diversity within schools and wider society (Ainscow, 2019[15]). Indeed, although diversity is a broad term and includes many groups for which data are not available or are difficult to compare across and within countries, recent OECD work (2020[17]) has found that OECD countries have become considerably more diverse in a rather short timeframe, for instance through the growing population shares of immigrants and their children in almost all OECD countries and more LGBTQI+ people being open about their sexual orientation.

Between 1994 and 2020, the very definition of inclusive education has evolved. Indeed, it is now increasingly common to see inclusive education as concerned with the education of all children and to view children with disabilities and/or special educational needs as one amongst many groups that historically were excluded or underserved (Cummings, Dyson and Millward, 2003[4]). The goal of inclusive education is to respond to all students' needs, going beyond school attendance and achievement, while improving all students' well-being and participation (Cerna et al., 2021[14]). Today, inclusive education is generally viewed as "a matter of adopting a socio-ecological approach regarding the interactions between students' capabilities and environmental demands, stressing that educational systems must adapt to and reach all students – and not vice versa" (Amor et al., 2018[18]).

The **OECD Strength through Diversity Project** adopts a broad definition of inclusive education, while recognising that there exist various definitions of inclusive education and disagreements about the definitions (Cerna et al., 2021[14]) . For the scope of this Working Paper and the broader work of the Project, inclusive education is defined as *"an on-going process aimed at offering quality education for all while*

respecting diversity and the different needs and abilities, characteristics and learning expectations of the students and communities, eliminating all forms of discrimination" (UNESCO, 2009[1]). More than a particular policy or practice related to a specific group of students or individuals, this definition identifies an ethos of inclusion and communities of learners, which does not only involve an individual dimension but also a communal one.

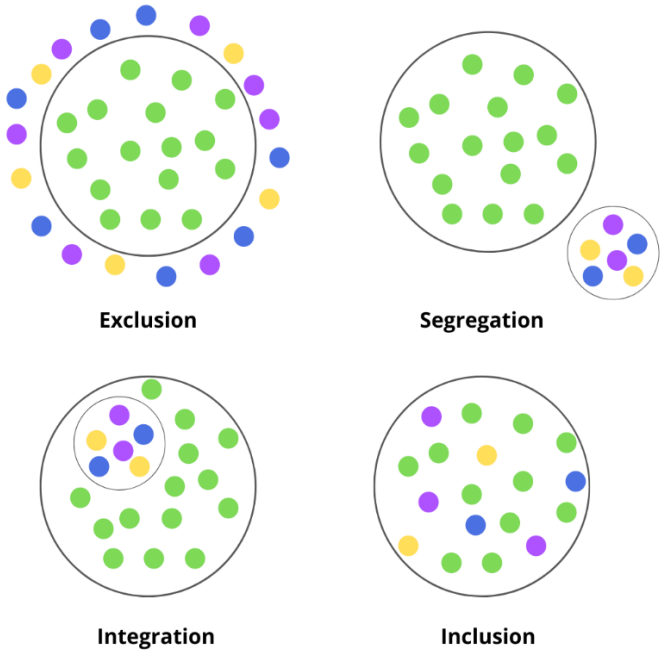
However, as mentioned, different stakeholders in debates around inclusion and the policymaking cycle have different understandings of inclusion in education. The field has been dominated by different theoretical currents holding diverse verdicts as to the feasibility of inclusion and its effectiveness to meet diverse student needs (Liasidou, 2012[19]). Clough and Corbett (2000[20]) define inclusion not as a single movement but rather as being "made up of many strong currents of belief, many different local struggles and a myriad of practices". The statement denotes the variegated nature of the diverse currents that stimulate the debate on the meaning of inclusion in education. Various models of inclusion have been theorised and suggested, aligning with the various conceptualisations of diversity and its management within mainstream education settings (Liasidou, 2012[19]).

1.1.1. Historic developments: beyond integration

The models of education offered to students, and in particular diverse students, such as those with special education needs (SEN), have evolved throughout the decades. Researchers generally categorise educational systems into four categories: exclusion, segregation, integration and inclusion (Figure 1.1).

In 2016, the United Nations (UN Committee on the Rights of Persons with Disabilities (CRPD), 2016[21]) clarified their interpretation of the concepts, as follows. These definitions are tailored to students with special education needs (or disabilities), but can be applied to a broader context of diverse students. Some researchers have also defined these stages of education as historical progression (Thomazet, 2008[22]).

Figure 1.1. The four types of educational model



Source: Adapted from Abt Associates (2016[23]), https://www.abtassociates.com/sites/default/files/2019-03/A_Summary_of_the_evidence_on_inclusive_education.pdf (accessed on 13 January 2022).

Firstly, **exclusion** occurs when students are directly or indirectly prevented from or denied access to education in any form. This may be when students are not allowed to register or attend school, or conditions are placed on their attendance. Exclusion in education does not only mean "out-of-school children"; it has many expressions (International Bureau of Education, 2016[24]; UNESCO, 2012[25]). For instance, exclusion can be from entry into a school or an educational programme, due to inability to pay the fees or being outside the eligibility criteria. It could also mean exclusion from regular and continuing participation in school or an educational programme, as in the case of a school or programme being too far to attend regularly or the inability to spare time for attending school due to other life demands (ibid.). Instead, **segregation** occurs when diverse groups of students are educated in separate environments (either classes or schools). This can happen when students with a learning disability are forced to attend a school exclusively for students with disabilities, but also when schools teach either females or males only (i.e. same-sex or single-sex education). **Integration** is achieved by placing students with diverse needs in mainstream education settings with some adaptations and resources, on the condition that they fit into pre-existing structures, attitudes and an unaltered environment (UNESCO, 2017[26]). For example, integration can consist in placing a student with a physical impairment or a learning disability in a mainstream class but without any individualised support and with a teacher who is unwilling or unable to meet the child's learning, social or disability support needs. Furthermore, integration does not automatically guarantee the transition from segregation to inclusion. More recently, integration and inclusion have been compared and sometimes confused, whereas the two concepts present significant differences.

Inclusion is a process that helps to overcome barriers limiting the presence, participation and achievement of all learners. It is about changing the system to fit the student, not changing the student to fit the system, because the 'problem' of exclusion is firmly within the system, not the person or their characteristics (UNICEF, 2014[2]). According to UNICEF (2014[2]), inclusive education is defined as a dynamic process that is constantly evolving according to the local culture and context, as it seeks to enable communities, systems and structures to combat discrimination, celebrate diversity, promote participation and overcome barriers to learning and participation for all people. All personal differences (i.e. age, gender, ethnicity, Indigenous status, language, health status, etc.) are acknowledged and respected. Today, inclusive education is generally viewed as "a matter of adopting a socio-ecological approach regarding the interactions between students' capabilities and environmental demands, stressing that educational systems must adapt to and reach all students – and not vice versa" (Amor et al., 2018[18]).

UNESCO (2008[27]) also describes the key factors of inclusive education for all students: i) the promotion of student participation and reduction of exclusion from and for education; and ii) the presence, participation and achievement of all students, but especially those who are excluded or at risk of marginalisation. The key message is that **every learner matters and matters equally**. Moreover, according to UNESCO (2005[28]), inclusion highlights the groups of learners who may be at risk of marginalisation, exclusion or underachievement, including students belonging to ethnic groups or national minorities or immigrant students, among others. UNESCO's interpretation also implies a moral responsibility to ensure that groups that are more statistically at risk are carefully monitored and steps are taken to ensure their presence, participation and achievement in education (UNESCO, 2005[28]).

UNESCO has identified the key elements that any definition of inclusive education should comprise, as detailed in Box 1.1.

Box 1.1. Key elements for any definition of inclusive education

In 2008, at the general presentation of the 48th session of the International Conference on Education, "Inclusive Education: The Way of the Future", UNESCO advocated a "holistic" approach to improve educational opportunities for children who are excluded from an equal education and adults who are illiterate. In doing so and in arguing the relevance and ways to make education inclusive, UNESCO discussed the definition of inclusive education and provided some key elements to be considered for any definition of inclusive education. These are based on key concepts of what inclusion **is** or **is not** about:

Table 1.1. What inclusion is or is not about

What inclusion is about	What inclusion is not about
Welcoming diversity	Reforms of special education alone, but reform of both the formal and non-formal education system
Benefiting all learners, not only targeting the excluded	Responding only to diversity, but also improving the quality of education for all learners
Children in school who may feel excluded	Special schools but perhaps additional support to students within the regular school system
Providing equal access to education or making certain provisions for certain categories of children without excluding them	Meeting the needs of children with disabilities only
	Meeting one child's needs at the expense of another child

Source: UNESCO (2008[27]), "Inclusive education: the Way of the Future", at the International Conference on Education, http://www.ibe.unesco.org/fileadmin/user_upload/Policy_Dialogue/48th_ICE/CONFINTED_48-3_English.pdf (accessed on 20 November 2020).

Historically, inclusion has been developed as a concept pertaining almost exclusively to students with SEN. For them, the social model developed in the 1970s holds social institutions partly responsible for producing disabling situations. Therefore, unlike integration policies that are based on students adapting to the school system, inclusive education calls for institutions to be accountable and adaptable themselves. Indeed, inclusion is not about bringing students that have been previously excluded into environments that are not adapted to diversity, but rather, about diversity and inclusion living and working together (Stromstad, 2003[29]).

Although research and policy efforts have expanded their interpretation of inclusive education beyond the focus of students with SEN, researchers have found that most studies on inclusive education are only concerned with certain groups of learners (Messiou, 2016[3]). Messiou (2016[3]) argues that this phenomenon of exclusive focus is in itself contrary to the principles of inclusive education. Moreover, other researchers have found that from a systematic review of inclusive education in English and Spanish language literature, there is a clear focus on inclusive education of students with SEN (Amor et al., 2018[18]). Nevertheless, it is becoming increasingly common to see inclusive education as concerned with

the education of all children, and students with SEN as only one of the various, historically marginalised groups (Cummings, Dyson and Millward, 2003[4]).

The concept of inclusion is strictly related to that of **equity** in education. Most of the policy discourse on the topic generally discusses it in terms of "equity and inclusion in education". For instance, UNESCO's Institute of Statistics has established the International Observatory on Equity and Inclusion in Education to "foster and develop the methodologies, guidelines and research needed to build a global repository of data and standards to measure equity in education" (UNESCO Institute for Statistics, 2019[30]). Equity considers "the social justice ramifications of education in relation to the fairness, justness and impartiality of its distribution at all levels or educational sub-sectors" (UNESCO Institute of Statistics, 2018[31]). Equity is at the core of the Sustainable Development Goals (SDGs), with Target 4.5 specifically aiming to "eliminate gender disparities and ensure equal access to all levels of education and vocational training for the vulnerable, including persons with disabilities, Indigenous peoples and children in vulnerable situations". In other words, differences in outcomes must not be the result of the circumstances into which individuals were born (UNESCO Institute of Statistics, 2018[31]).

The difference between equity and inclusion is blurred in literature, and the two concepts overlap and differ depending on the definitions adopted by academics and policy makers at a given time (Mezzanotte and Calvel, Forthcoming[32]). While most of the OECD work on education has concerned equity so far, the Strength through Diversity Project aims to set apart the concepts of equity and inclusion in education. While the two are related, the Project considers that inclusion does not only concern academic outcomes and educational success, but encompasses student well-being, self-worth and sense of belonging, along with enabling students to reach their full potential (Cerna et al., 2021[14]). A core difference is also that, while inclusive education requires education systems to evaluate and re-imagine broad educational goals and standards, equity is narrowly confined to ensuring that there are no between-group differences in existing educational outcomes across social and demographic groups.

1.1.2. Schools of thought

Scholars have developed different conceptualisations of inclusive education, which in turn have been categorised into specific streams or schools of thought. Ainscow, Booth, and Dyson (2006[33]) have summarised the conceptualisations of inclusive education in six main categories: i) inclusion as concerned with disabilities and special education needs (SEN); ii) inclusion as a response to disciplinary exclusions; iii) inclusion as referring to all groups vulnerable to exclusion; iv) inclusion as the promotion of school for all; v) inclusion as 'Education for All'; and vi) inclusion as a principled approach to education and society.

In her book "*Inclusive education, politics and policymaking*" Liasidou (2012[19]) categorises different interpretations of the concept of inclusive education in four schools: i) human rights, ii) social cohesion and economic advancement, iii) SEN sub-system, and iv) education for all. This specific categorisation can help to conceptualise the main strands of research and the key messages that they convey about inclusive education. Particularly interesting is the conceptualisation of inclusive education as a human right, which reflects a common argument in favour of inclusive education reforms.

Inclusion as a human right

Inclusion emerges from a knowledge base in which diversity is perceived as the norm and considered a positive and enriching experience. In this context, the theory that recognises inclusion as a human right deems any definition of inclusion inadequate unless drawing upon a human rights approach to disability and diversity. As such, inclusive education should never be considered a sacrifice or a privilege to be 'earned' (Rioux, 2002[5]). Moreover, inclusion contributes to the wider discussion on equity and social justice, based on a human rights approach to social relations. It seeks to combat sources of disadvantage and marginalisation that result from – and give rise to – negative connotations of difference and diversity

(Liasidou, 2012[19]). Inclusion thereby becomes a struggle against processes of exclusion and marginalisation affecting multitudes of people, especially the most vulnerable.

Armstrong and Barton (2008[34]) summarise this vision in the introduction to their book, "Policy, Experience and Change: Cross-Cultural Reflections on Inclusive Education":

> *For us inclusive education is not an end in itself, but a means to an end. It is about contributing to the realisation of an inclusive society with a demand for a rights approach as a central component of policy making. Thus, the question is fundamentally about issues of human rights, equity, social justice and the struggle for a non-discriminatory society. These principles are at the heart of inclusive educational policy and practice. (Armstrong and Barton, 2008, p. 6[34])*

At the core of this approach is the human right to education as stated in the 1948 Universal Declaration of Human Rights. The Declaration states that everyone has a right to education and that, amongst other things, "education shall be directed to the full development of human personality and to the strengthening of respect for human rights and fundamental freedoms" (UN General Assembly, 1948[35]).

1.2 The relationship between education, individuals' life outcomes and societal outcomes

It has been widely demonstrated that education is correlated with most of an individual's key life outcomes: employment, earnings (Harmon, Oosterbeek and Walker, 2003[36]), poverty levels, physical and mental health, well-being, social-mobility, crime rates and more. Moreover, the levels and quality of education that individuals receive have an impact on society in terms of increased GDP growth, reduced healthcare costs and social spending, and improved social cohesion. The following sections offer a breakdown of the main relationship between education and economic, non-economic and societal returns described by academic literature and international research.

1.2.1. Labour and economic returns

Low educational outcomes or school failures can penalise individuals throughout their lives. A student who leaves school without the necessary skills tends to have less favourable life prospects, in terms of lower initial and lifetime earnings, greater difficulty in rapidly adapting to changes in the economy, higher risk of unemployment (OECD, 2012[6]) and a greater dependency on welfare and other social services (Rumberger, 1987[37]) (Coelli, Green and Warburton, 2007[38]). The necessary skills to succeed in a digital world, according to the OECD Skills Outlook 2017, would be skill mixes, which would include strong general cognitive skills, like literacy and numeracy, but also basic digital skills, analytical skills and a range of complementary skills like creativity, problem-solving, and critical thinking (OECD, 2017[39]). Interpersonal and communication skills, as well as emotional skills like self-awareness and the ability to manage stress and change, are also increasingly important.

In general, literature has shown the correlation between skills earned in schools and income levels from the labour market (Hanushek and Woessmann, 2008[40]), and an even stronger correlation between the years of education achieved and the returns to education, through an increase in productivity or the signalling effect of education[2] (Hanushek and Woessmann, 2020[8]; Harmon, Oosterbeek and Walker,

[2] Economic literature is divided into two streams that correlate the returns to education to two different phenomena. On the one hand, human capital theory and econometric analysis sustain that earning premiums are associated with productivity increases that occur as people acquire additional qualifications. On the other hand, an important concern is that education may have a value in the labour market not because of any effect on productivity but for 'spurious' reasons. In particular, education may act as a signal of ability or other characteristics that employers value because it

2003[36]). Variations in the levels of returns to education depend on the income level of the countries considered – with lower-income countries showing higher returns to education – and the gender of the subjects, as women generally show higher returns to education (Psacharopoulos and Patrinos, 2018[41]).

As advantage and disadvantage are transmitted over generations, with parents imparting resources such as income, skills and network to their children, the negative effects of a lack of inclusion can propagate inequalities across generations. On average, educated parents provide their children with more effective social and educational interactions, transmit citizenship values to them better and better cultivate psychosocial skills and behaviours that lead to improvements in children's present and future health (European Expert Network on Economics of Education (EENEE), 2018[42]). Moreover, organisations and institutions may favour some groups over others and promote social norms and stereotypes that exclude more vulnerable groups from educational – and thus socio-economic – opportunities (UNESCO, 2020[10]).

1.2.2. Non-economic returns: health, well-being, political engagement, trust, and others

Education provides a range of indirect benefits, which are also likely to entail positive economic consequences. For instance, greater education is associated with better health status and increases in some aspects of social cohesion and political participation (OECD, 2006[9]).

In terms of health, research shows that more years of education and higher levels of qualification are associated with a lower incidence of physical and mental disorders. These relationships have been shown to hold across different countries, income ranges, age and ethnic groups (OECD, 2006[9]). According to research (Zajacova and Lawrence, 2018[43]), the most prominent mediating mechanisms between education and health can be grouped into the following categories: i) economic, ii) health-behavioural, iii) social-psychological and iv) access to healthcare. People with higher levels of educational attainment are more likely to work in occupations in which physical hazards are less serious. Moreover, education may render individuals more future-oriented, thus increasing the incentive for longer-term investment in health, while also increasing "health literacy", that is, the capacity to understand basic health information and make appropriate health decisions. Finally, higher income correlated to higher education can also facilitate access to quality healthcare (Rudd, Moeykens and Colton, 1999[44]; OECD, 2006[9]; Zajacova and Lawrence, 2018[43]). Chevalier and Feinstein found causal evidence that education has a protecting effect on mental health, suggesting substantial returns to education in terms of improved mental health (Chevalier and Feinstein, 2006[45]). Researchers have also found that education has a causal impact on mortality reduction (Lleras-Muney, 2005[46]).

Higher levels of education are positively associated with a range of valued outcomes, such as political interest and engagement (Emler and Frazer, 1999[47]), trust (Borgonovi, 2012[48]) and happiness (Chen, 2011[49]). More recently, Easterbrook and colleagues (2015[50]) found that higher education levels are associated with higher trust and political interest, better health and well-being, and less political cynicism and negative inter-group attitudes. In particular, they noticed that the education effect was strongest when associated with political outcomes and attitudes towards immigrants, while weaker when associated with health and well-being (Easterbrook, Kuppens and Manstead, 2015[50]).

1.2.3. Societal returns

Since the 1960s, economic literature has studied the role of education in rising incomes at the country level, in particular in terms of higher GDP per capita and its annual growth rate (Bassanini and Scarpetta, 2001[51]; Hanushek and Woessmann, 2007[7]). Providing more education, knowledge and skills to

contributes to productivity but which they cannot easily observe, which is defined as a signalling effect of education (Riley, 2001[321]) (Spence, 1973[323]).

individuals, i.e., accumulating human capital, increases their productivity and employability, which in turn rises the country's overall income and development. Moreover, individual non-economic outcomes also affect society more generally: better education can contribute to reductions in violence and crime rates – both via incapacitation and increasing individuals' opportunity costs[3] –, reductions in the cost of healthcare and welfare systems (i.e. unemployment benefits, etc.), and can foster innovation. Policies that support individuals to obtain the highest qualifications of which they are capable have the potential to provide not only personal, but economic benefits. This is the case with savings in national healthcare and socio-political costs, such as greater political engagement, higher levels of trust, and more positive inter-group attitudes (Easterbrook, Kuppens and Manstead, 2015[50]).

Easterbrook and colleagues (2015[50]) have reviewed various studies conducted in Europe, which found that lower education levels are correlated to greater levels of prejudice, ethnic exclusionism, xenophobia, and negative attitudes towards immigration and immigrants (Hainmueller and Hiscox, 2007[52]; Hello, Scheepers and Gijsberts, 2002[53]; Jenssen and Engesbak, 1994[54]; Pettigrew et al., 1997[55]). Moreover, from the United States and international data, it appeared that lower levels of education are associated with nationalism, prejudice and negative attitudes towards immigration (Coenders and Scheepers, 2003[56]; Hadler, 2012[57]; Maria, 2004[58]).

Furthermore, higher levels of education generally translate into greater civic participation, such as voting and volunteering, which help to build social cohesion (OECD, 2010[59]). All these facts combined contribute to a successful and healthy democracy (Ibid). Thus, there are incentives for government to invest in quality education for all citizens, including and particularly for diverse groups, to eliminate barriers to their inclusion in education and generate benefits for both individuals and the societies in which they live. There exists a large literature that examines the economic impact of diversity, including the assessment of how ethnic and immigrant diversity affects social cohesion. Most of this literature focusing on OECD countries addresses how diversity can affect trust, voting patterns, civic participation, preferences for redistribution and investment into public goods (OECD, 2020[17]). Evidence generally points to a negative relationship between diversity and these indicators of social cohesion, although findings vary strongly across countries (Alesina and La Ferrara, 2005[60]), but relationship between diversity and social cohesion is not clear-cut (Dinesen and Sønderskov, 2017[61]). Indeed, recent evidence points out that what drives an often-observed erosion of social cohesion is not diversity itself, but rather contextual factors related to socio-economic status, inequality and governance (OECD, 2020[17]). For example, studies on social cohesion in neighbourhoods show that the key element for weak social cohesion is the low socio-economic status of a neighbourhood rather than its ethnic diversity (Laurence, 2016[62]) (OECD, 2020[17]).

1.3 The benefits and costs of inclusive education

The importance of the inclusion of diverse students in educational settings has many drivers, spanning from human rights, to educational, personal and societal gains. Inclusive education has been shown to provide benefits for all students in improving the quality of education offered, as it is more child-centred and focused on achieving good learning outcomes for all students, including those with a diverse range of abilities (UNESCO, 2009[1]). A carefully planned provision of inclusive education can improve students' academic achievement, while also fostering their socio-emotional growth, self-esteem and peer acceptance (UNESCO, 2020[10]). Moreover, the inclusion of diverse students can help to fight stigma,

[3] Education can have different impacts on crime functions, via incapacitation (i.e. leaving individuals less free time and reducing boredom that could lead to potential criminal activities), by facilitating desirable social interactions among young people that can change their preferences, and by increasing productive skills and therefore potential earnings, so that individuals with more education face higher opportunity costs (i.e. private losses in terms of their forgone productivity). Education may also increase individuals' risk aversion and thus discourage involvement in risky crime activities. (European Expert Network on Economics of Education (EENEE), 2018[42]).

stereotyping, discrimination and alienation in schools and societies more broadly (Ibid). Indeed, the Salamanca Statement and Framework for Action (1994[63]) asserts that: "Regular schools with inclusive orientation are the most effective means of combating discrimination, creating welcoming communities, building an inclusive society and achieving education for all."

The World Bank also argues that equity and inclusion in education are essential for shared prosperity and sustainable development (World Bank Group, 2016[64]). Disparities in education are one of the major drivers of income inequality, both within and among countries. Without basic education, individuals in the bottom 40% of a nation's income distribution are unlikely to be successful in a globalised economy. As the World Bank World Development Report 2012 notes, fair and inclusive education is one of the most powerful levers for a more equitable society (World Bank, 2011[65]).

Although there are very important human, economic, social and political reasons for pursuing a policy and approach of inclusive education, it is also a means of bringing about personal development and building relationships among individuals, groups and nations (UNESCO, 2005[28]).

Moreover, inclusive education can offer all children a chance to learn about and accept each other's abilities, talents and needs. This process, through the fostering of meaningful relationships and friendships, can strengthen social competences while also building social cohesion (Council of Europe, 2015[66]). In an increasingly globalised and complex world, inclusive education can strengthen the trust and sense of belonging of citizens and among citizens.

1.3.1. Economic and financial sustainability of inclusive education settings

From a governmental perspective, concerns about the financial sustainability of the education system are of paramount importance. According to the European Agency for Special Needs and Inclusive Education (2018[67]), one of the main reasons for financing inclusive education is to prevent exclusionary strategies: such approaches may deny learners their right to quality education and consequently lead to increasing expenditure in education.

Estimating potential gains resulting from improved inclusion in education and within society presents several challenges, from estimation of current losses of student potential, to the most affected categories of students, and the limited availability of relevant data. Moreover, academia is yet to produce comprehensive estimates on potential gains from inclusive education. Basic estimates exist about the gains that OECD countries could obtain by improving the academic outcomes of their low-performing students. For instance, in 2010 the OECD estimated enormous economic gains in improving the cognitive skills of OECD populations (OECD, 2010[68]). The OECD reported that a modest goal of all OECD countries boosting their average PISA (Programme for International Student Assessment) scores by 25 points over the next 20 years implied an aggregate gain of OECD GDP of USD **115 trillion** (EUR 94.7 trillion) over the lifetime of the generation born in 2010. More ambitious goals, such as bringing all students to a minimal level of proficiency for the OECD (a PISA score of 400), would imply aggregate GDP increases of close to **USD 200 trillion** (EUR 164.78 trillion), according to historical growth relationships. Bringing all countries up to the OECD's best-performing education system in PISA in 2009 (Finland) would result in gains of around **USD 260 trillion** (EUR 214.21 trillion) (OECD, 2010[68]). Section 2 of this paper shows that, on average, various, diverse groups of students tend to be low performers or have lower academic outcomes. Supporting these groups specifically may help to increase the average outcomes of low performers, producing a gain for OECD countries.

Additional studies exist on particular groups of students – explored more extensively in Section 2 – that identify more specifically the costs that societies incur by not supporting these populations. For instance, the lack of inclusion of individuals with attention-deficit hyperactivity disorder (ADHD) has an estimated cost of **USD 67 to 116 billion** (EUR 55.2 to 95.57 billion) annually in the United States, mainly due to the loss of workforce productivity (Biederman and Faraone, 2006[69]). Similarly, according to the World Bank,

the fiscal benefits that would derive from including Roma individuals across Central and Eastern Europe and Balkans Countries amount annually to **EUR 3.4 – 9.9 billion** (World Bank Group, 2010[70]). Concerning gender gaps, Ferrant and Kolev (2016[71]) have estimated that the current level of discrimination is estimated to incur a loss of up to **USD 12 trillion** (EUR 9.89 trillion) or **16%** of global income. For OECD countries especially, this loss was estimated to be about **USD 6116 billion** (EUR 5038.93 billion) (Ibid).

It is difficult to undertake a comprehensive economic cost-benefit analysis, not least because the benefits are hard to quantify and extend over generations (UNESCO, 2020[10]). Yet, policy makers should consider that shifting to an inclusive education system is not intended to be a cost-cutting intervention per se. The resources that an inclusive education model requires for its onset relate to the training of teachers and school staff, adaptation of infrastructure, purchase of assistive equipment and curriculum adaptation, among others. According to UNESCO (2020[10]), such investments would nevertheless be an effective use of funds, since they would reduce redundancy and high costs of running parallel systems, which may happen in contexts that offer segregated or separate settings for diverse students. There exists a general understanding that inclusive education systems cost less to implement and maintain than special education models, notably in literature concerning students with special education needs (UNICEF, 2015[72]). Moreover, UN-DESA, OHCHR and IPU[4] argue that while inclusion is often misconceived as prohibitively expensive, impractical, unsustainable or a strictly disability-specific issue, inclusive models of education are less expensive than segregated ones (UN-DESA, OHCHR, IPU, 2007[73]). In academia, a large body of work examined the costs of inclusive settings for students with SEN between the 1990s and the early 2000s. Halvorsen (1996[74]) found that inclusive school settings actually reduce costs compared to special schools, although this research should be carefully considered due to the very limited sample involved in the study. Similarly, studies on pre-school education for students with SEN found that inclusive settings presented lower costs than traditional special settings, both per hour and on an annual basis (Odom, Parrish and Hikido, 2001[75]; Odom et al., 2001[76]). More generally, past OECD work reported that inclusive settings are recognised to be less expensive than segregated ones, as special school provision tends to be more costly than regular school provision, based on the funding allocated to schools (OECD, 1999[77]). Countries are increasingly taking into account the inefficiency of running multiple systems of administration, organisational structures and services for separated education systems (UNESCO, 2005[28]). UNESCO (2005[28]) also reports that even though stakeholders often perceive the effort of including traditionally excluded groups into mainstream education as being costly, it is often actually a question of making minor adjustments to accommodate all learners.

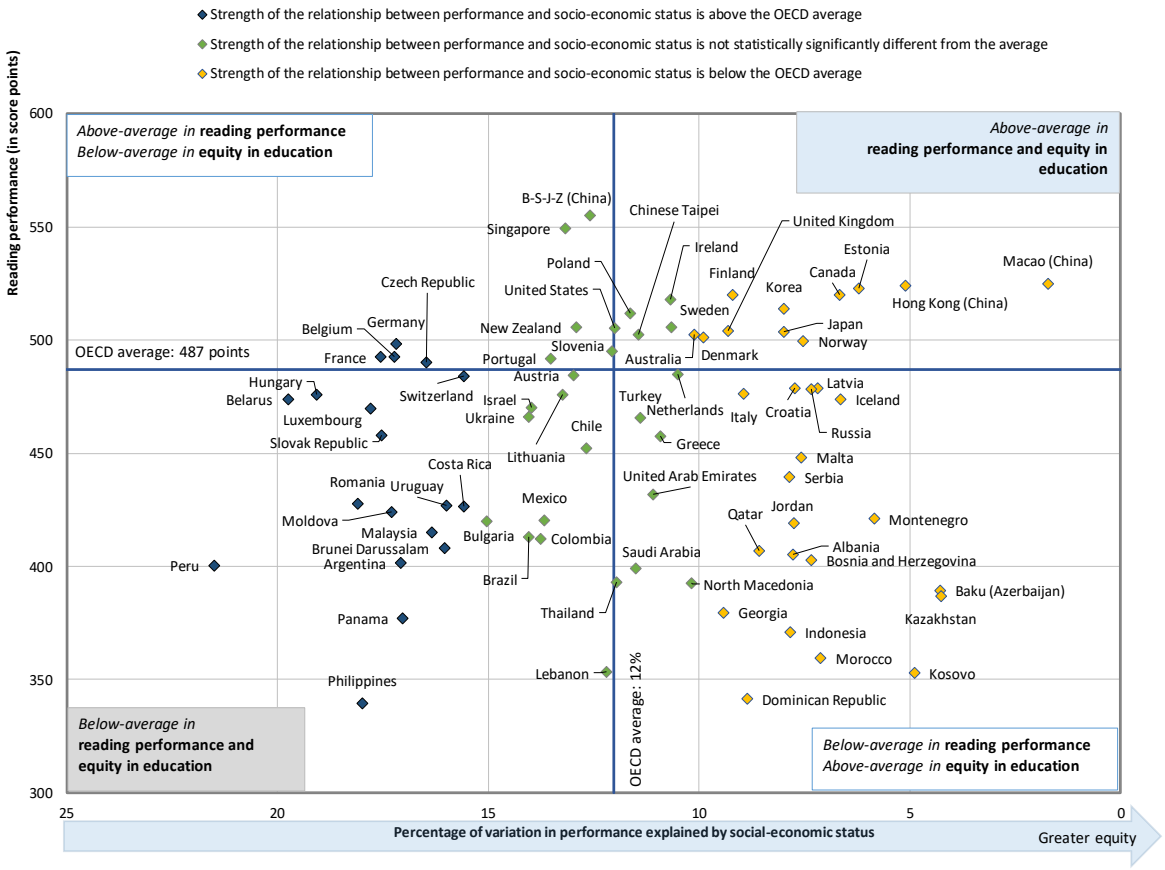
However, if a holistic approach to education and society is adopted, it is more relevant to question the costs to society from a lack of provision of education for all students. From this perspective, the most cost-effective solution is to educate all students, and to educate them equally. PISA results consistently find that a country's strong performance and weak relationship between their students' socio-economic status[5] and education outcomes are not mutually exclusive. Some education systems manage to attain both a high level of average performance and equity in education (OECD, 2016[78]). The results from the latest edition of PISA (2018) show that in 11 of the 25 countries and economies that scored above the OECD average in reading, the strength of the relationship between student performance and socio-economic status was significantly below the OECD average (OECD, 2019[79]). School systems in Australia, Canada,

[4] United Nations Department of Economic and Social Affairs (UN-DESA), Office of the United Nations High Commissioner for Human Rights (OHCHR), Inter-Parliamentary Union (IPU).

[5] To evaluate the equity of an education system, PISA uses the extent to which socio-economic background relates to student and school performance as a criterion for assessing equity in the distribution of learning opportunities. Where students and schools consistently perform well, irrespective of the socio-economic context, learning opportunities can be considered to be more equitably distributed. In turn, where student and school performance strongly depends on socio-economic background, large inequalities in the distribution of learning opportunities remain and the potential of students remains underutilised (OECD, 2007[322]).

Denmark, Estonia, Finland, Hong Kong (China), Japan, Korea, Macao (China), Norway and the United Kingdom achieved high performance in reading, while socio-economic status was less predictive of performance than average (Figure 1.2). These results suggest that investing in equity in education systems can support performance in international tests.

Figure 1.2. Strength of the socio-economic gradient and reading performance, equity



Note: Socio-economic status is measured by the PISA index of economic, social and cultural status.
Source: OECD (2018[80]), PISA 2018 Database, Table II.B1.2.3, http://www.oecd.org/pisa/data/2018database/

Thus, countries must consider minimising wasting resources and using such resources optimally to make education cost-effective, rather than focusing on cost-cutting measures (UNESCO, 2005[28]). For instance, when education systems have high repetition rates for certain groups of students (such as immigrant students or students with learning disabilities), the expenses incurred in providing additional years of education are inefficient and costly in the long-term (Ibid). The resources that are spent on providing further years of education would be better invested in preventive measures, such as additional support to learners who encounter difficulties in education (UNESCO, 2005[28]). Moreover, grade repetition tends to be more common among disadvantaged students than advantaged ones. In almost all countries and economies that participated in PISA 2018, students in socio-economically disadvantaged schools are more likely to have repeated a grade than students in advantaged schools (OECD, 2019[81]), even when the two groups scored similarly in reading. On average across OECD countries, a disadvantaged student was more than twice as likely to have repeated a grade at least once, even if the students scored similarly in the PISA reading test. This suggests that factors other than academic outcomes – such as behaviour, attendance, student well-being, etc. – are taken into consideration when teachers assign marks or when schools make

decisions about whether a student should repeat a grade (OECD, 2019[81]). Consequently, the performance gap between disadvantaged and advantaged students increases through their education career, which could impact specifically diverse groups of students that are often less advantaged, such as immigrant students or students from ethnic groups and national minorities. It may be difficult for school systems to identify cases where students are retained unfairly (OECD, 2020[82]), which can reduce the inclusiveness of education systems.

1.3.2. Potential gains from inclusive education settings

Some other common reasons for inclusive education are economic arguments, such as poverty reduction (UNICEF, 2014[2]). As an alternative to economic analyses, it is possible to capture the advantages and benefits of a shift to inclusive education for countries and societies in terms of personal and societal losses incurred due to the low outcomes of diverse students in non-inclusive systems. All groups of diverse students, and the intersections of these groups, have to face challenges in education that often lower their achievement and hinder their potential. Indeed, diverse groups of students, such as immigrant students (OECD, 2019[79]), ethnic minorities (Kao and Thompson, 2003[83]) or students with special education needs (Brussino, 2020[11]), tend to achieve at lower levels compared to their more advantaged peers. In addition, they often report lower levels of social and emotional well-being in relation to their school experience.

As mentioned worldwide, discrimination can be based on gender, geographical location, socio-economic status, disability, ethnicity, language, migration, displacement, incarceration, sexual orientation, gender identity and expression, religion and other beliefs and attitudes (UNESCO, 2020[10]). In turn, the different forms of discrimination of these groups in education constitute a cost not only at the individual but also at the societal level. Inequities can hamper the educational achievement of specific population groups, which, as mentioned earlier, can determine their employment, health and life-long outcomes. For instance, geographical segregation has a strong impact upon students' outcomes: research has documented the connections between neighbourhood socio-economic status and child and adolescent outcomes, including links to behavioural problems, juvenile delinquency, academic achievement and health issues (McArdle and Acevedo-Garcia, 2017[84]). This is often the case of students from ethnic minorities, such as Black and Hispanic students in the United States or Roma students in Europe, who are often segregated into both racially isolated and high-poverty schools (OECD, 2019[85]). The same discourse can apply to Indigenous students, such as Aboriginal Australians (Dean, 2018[86]).

The range of economic and social effects that inclusive education can procure is wide and applies to very diverse groups of learners. Social inclusion is believed to be one of the positive outcomes of inclusive education (MacArthur, 2013[87]; European Agency for Special Needs and Inclusive Education, 2018[88]), both during children's school years and when they begin their adult lives. In the first instance, it is identified as short-term social inclusion through participation in school and out-of-school activities and in the second instance, it indicates the long-term forms of social inclusion, such as being employed and leading a social life (European Agency for Special Needs and Inclusive Education, 2018[88]).

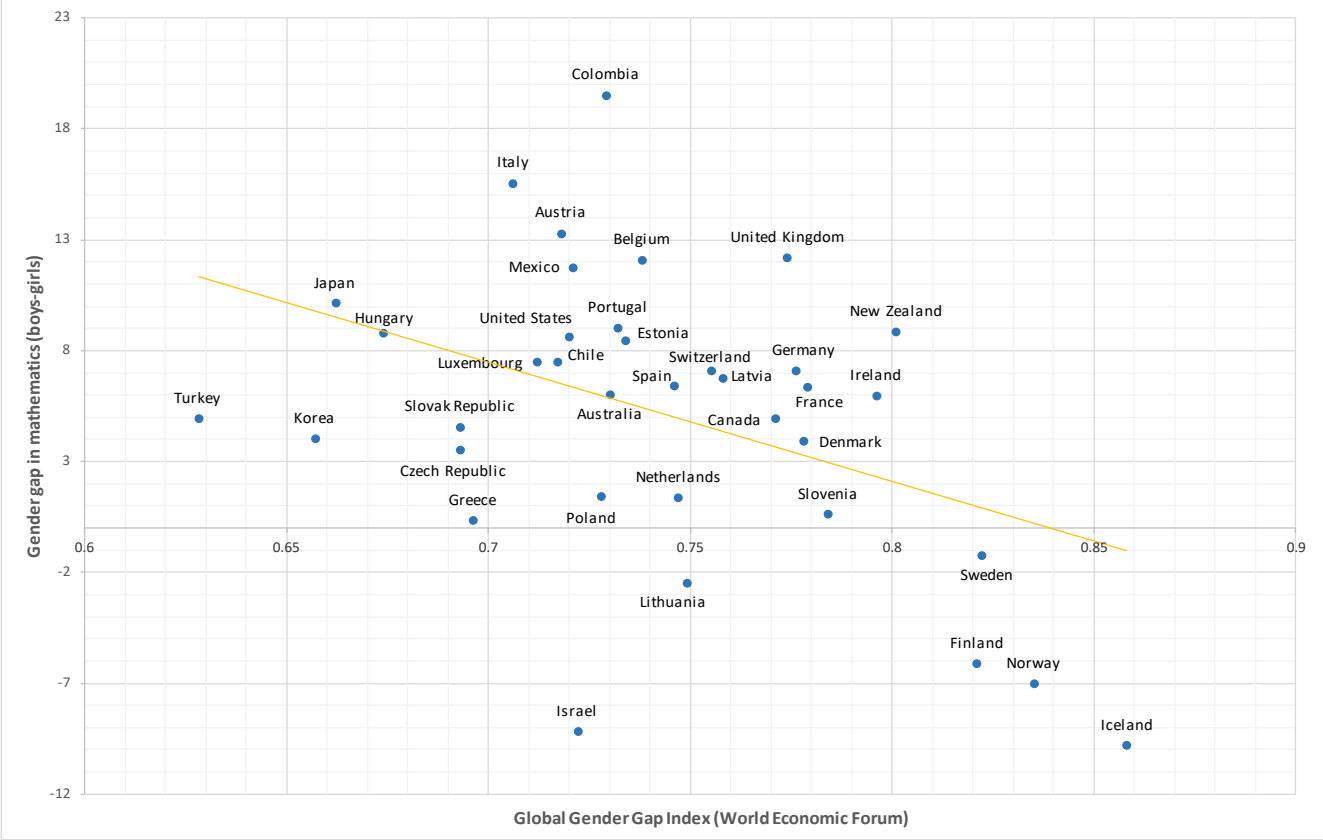
Moreover, from a review by Ruijs and Peetsma (2009[89]), it appears that students with special educational needs achieve academically better in inclusive settings than in non-inclusive settings. Research also shows that attending and receiving support within inclusive education settings can increase the likelihood of enrolling in higher education for students with SEN (European Agency for Special Needs and Inclusive Education, 2018[88]). These settings are also beneficial for students that have no disability or impairment, since attending class alongside a student with SEN can yield positive outcomes for their social attitudes and beliefs (Abt Associates, 2016[23]). Similarly, with the inclusion in education of students from ethnic groups and national minorities, young people have the opportunity, through repeated exposure and practice, to engage with others who differ from them. This interaction can relate to feelings of satisfaction and social efficacy within the current school setting and inform future social interactions and social adaptability in college, communities, and the workplace (Nishina et al., 2019[90]). As predicted by Contact

Hypothesis (Allport, 1954[91]), increased inter-group contact could lead to a reduction of hostility, prejudice and discrimination between groups, which can refer to all types of diversity. Instead, a context that allows contact between diverse peers can build strong social skills, an important asset in today's diverse and international places of work.

An instance where this cannot occur is the case of same-sex or single-sex schools. Such schools appear to increase the gender salience of students (i.e. the awareness of gender categorisation) and levels of anxiety on mixed-gender interactions, which can worsen the students' socio-psychological well-being (Wong, Shi and Chen, 2018[92]). Moreover, these settings can increase gender stereotyping and legitimise institutionalised sexism (Halpern et al., 2011[93]). Countries that have higher levels of gender equality in their societies, which impact also education systems, generally have smaller or no gender gaps in subjects in which boys traditionally outperform girls. From Guido and colleagues' analysis (2008[94]) and subsequent ones (Fryer and Levitt, 2010[95]), there appears to be a positive correlation between gender equality and gender gap in mathematics: cultures that are more gender-equal are associated with a reduction in the negative gap in mathematics (Guiso et al., 2008[94]). Levels of gender equality can be approximated with the Global Gender Gap Index (here onwards GGI), first introduced by the World Economic Forum (WEF) in 2006, which offers a framework to capture the magnitude of gender-based disparities and their evolution along the years. The index collects information on national gender gaps in economic, education, health and political fields (World Economic Forum, 2020[96]).

Considering OECD countries' scores in PISA 2018 in mathematics and their correlation to the Global Gender Gap Index elaborated by the World Economic Forum, it appears that countries whose societies are more equal also experience reduced gender gaps in mathematics (Figure 1.3).

Figure 1.3. Correlation between gender equality of countries' and PISA scores in mathematics



Note: The graph shows exclusively OECD countries. The GGI Index, first introduced by the WEF in 2006, aims at offering a framework to capture the magnitude of gender-based disparities and their evolution along the years. The index collects information on national gender gaps in economic, education, health and political fields (World Economic Forum, 2018[97]), and ranges from 0 (total inequality) to 1 (full equality).
Source: PISA 2018 Database (2018[80]), Table II.B1.7.3 ; World Economic Forum (2018[97]), Gender Gap Index 2018, https://reports.weforum.org/global-gender-gap-report-2018/data-explorer/ (accessed on 13 February 2020).

Specifically, countries such as Sweden, Finland, Norway and Iceland have the highest levels of gender equality among OECD countries. They display a gender gap in mathematics that favours girls rather than boys, against an OECD average of 5 points in favour of boys (OECD, 2019[79]). In general, the trend shows a correlation between greater equality and a reduction in the advantage of boys in mathematics.

Despite some concerns from scholars on the possibility of negative effects of a fully inclusive system (Forlin et al., 2011[98]), there exists evidence on the possibility for all learners to achieve at high levels in an inclusive school system (AuCoin, Porter and Baker-Korotkov, 2020[99]). Evidence from New Brunswick (Canada) shows that this is possible by anchoring the public education system in the commitment that all students can succeed, which is enhanced by teachers seeking out and using effective instructional strategies and sustained by investments in professional learning and capacity building (Forlin et al., 2011[98]). According to the results of PISA 2018, in Canada students scored above the OECD average in mathematics, reading and science, and 86% of students attained at least Level 2 proficiency in reading, significantly more than on average across OECD countries (77%) (OECD, 2019[100]). These results support the assertion that student achievement at a high level is consistent and possible in an inclusive school system. A further important dimension of inclusion in school is student well-being and mental health. In New Brunswick, children and youth take part every three years in a wellness survey, which examines student perceptions, attitudes, and behaviours in areas related to personal well-being and consistently yields positive results (New Brunswick Health Council, 2019[101]). In 2019 specifically, 92% of students reported a high level of connectedness, 85% of students a high level of pro-social behaviour, including 81% of youth with special education needs reporting the same. In examining healthy and inclusive schools in New Brunswick, it appears that a sense of connectedness was foundational in schools that successfully implemented inclusive education (AuCoin, Porter and Baker-Korotkov, 2020[99]). Moreover, the system in New Brunswick appears to be highly successful in keeping students engaged and report a dropout rate of only 1.1% (New Brunswick Department of Education and Early Childhood Development, 2019[102]).

The following Section analyses the barriers and challenges that diverse groups face in education systems in more detail, and the potential gains that they could obtain in inclusive systems with a holistic approach to students' needs.

2. Effects of exclusion and inclusion in education for diverse student groups

Some groups of students are particularly impacted by non-inclusive practices and can become further marginalised in education. These groups are various and often intersect among each other, which results in even more complex needs and sources of discrimination. Intersectionality, which indicates the intersection of different forms of diversity, can create further barriers or sources of disadvantage for students (Cerna et al., 2021[14]). The term intersectionality is based on Crenshaw's (1989[103]) work on gender and ethnicity and has been widely used in other areas in recent years (Davis, 2008[104]; Lutz, Herrera Vivar and Supik, 2011[105]). Identities overlap and intersect, and form new, more specific identities with new implications. While acknowledging that many more personal characteristics can be a source of disadvantage, the *Strength through Diversity Project* focuses on six dimensions of diversity that entail specific needs and challenges: special education needs; immigrant and refugee background; ethnic groups, national minorities and Indigenous background; giftedness; gender; and sexual orientation and gender identity (LGBTQI+).

Empirical studies that focus on the establishment of research-based practice in inclusive environments or schools are relatively lacking (Amor et al., 2018[18]). Over the past 20 years, research on inclusive education has indeed remained mostly theoretical and descriptive (ibid.). Moreover, there is little evidence on the impact of inclusive education settings on students' outcomes. The existing evidence generally concerns only students with SEN. For instance, Messiou (2016[3]) developed an analysis of published articles in the *International Journal of Inclusive Education* between 2005 and 2015, which highlights that most studies are only concerned with certain groups of learners. Her analysis shows that around half of the studies reviewed focus on topics related to students with SEN (including studies on ADHD, autism, etc.), while 1% relates specifically to LGBTQI+ topics, and around 3% to ethnic groups, national minorities or Indigenous peoples. She also argues that focusing only on some students, rather than all, is contrary to the principles of inclusive education (Messiou, 2016[3]).

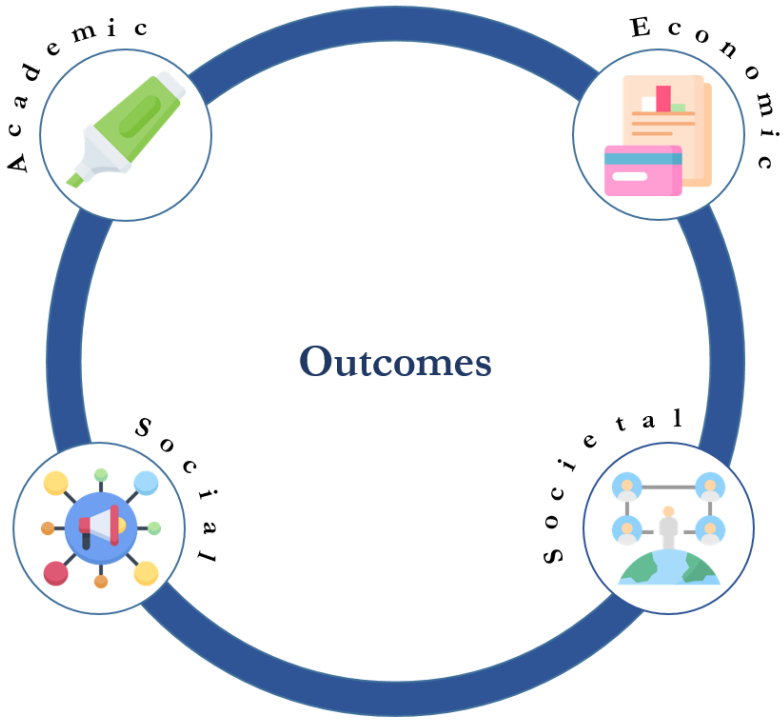
The next sections of this paper focus on the challenges that diverse groups face and their outcomes achieved in traditional education settings. The rationale is that, even if there currently is very limited causal evidence on the impact of inclusive settings on students and societies, as the research in the field remains mostly theoretical, it is possible to identify the limits that mainstream educational settings encounter in teaching diverse students. Furthermore, as literature widely shows that educational outcomes affect a variety of later-life outcomes (Section 1.2), such as employment rates, income levels, health, trust in government and political participation, removing barriers that constrain diverse students' outcomes is key. Removing such barriers is, by definition, the scope of inclusive educational reform, which aims for all students to learn to the best of their capabilities and with the best possible support for their individual needs.

The next Section presents some of the barriers confronted by diverse groups in non-inclusive education settings and the negative impact that they can have on students' life outcomes, to underline the limitations

of traditional education settings for diverse students. In particular, the different relevant outcomes for the six groups have been grouped as shown in Figure 2.1: academic, economic, social and societal outcomes. **Academic outcomes** encompass students' grade point averages (GPAs), credits, secondary graduation rates, tertiary enrolment and graduation rates, but also levels of engagement, absenteeism and early dropout. **Social outcomes**, instead, include social inclusion, friendships development and sense of belonging, but also experience of harassment, feelings of unsafety, discrimination, threats and violence. **Economic outcomes** cover employment and unemployment rates, earnings and wages, dependency on social grants, mental and physical health. **Societal outcomes**, lastly, encompass productivity losses, production rates, levels of income taxes and social security contributions, and public expenditure levels.

Figure 2.1. Key life outcomes

Summary of main outcomes analysed by the paper



The categorisation of these outcomes is derived from the different dimensions of well-being taken into account by the OECD Strength through Diversity Project, which are: academic, psychological, physical, social and material (Cerna et al., 2021[14]). In order to align with the literature on different individual and societal outcomes, these dimensions of well-being have been summarised in academic, economic and social outcomes, and societal ones have been added to offer a broader perspective.

2.1 Special education needs

According to the definition adopted by the OECD Strength through Diversity Project, special education needs include learning disabilities (i.e. dyslexia, dysgraphia, etc.), physical impairments (i.e. hearing and visual impairments, etc.) and mental disorders (i.e. autism, ADHD, etc.). Globally, these are often referred to within the general term of "disabilities". More information on the inclusion of students with SEN in education is available in a working paper by Brussino (2020[11]). Evidence shows that, despite progress in most OECD countries over the last few decades, students with SEN still experience significant disparities

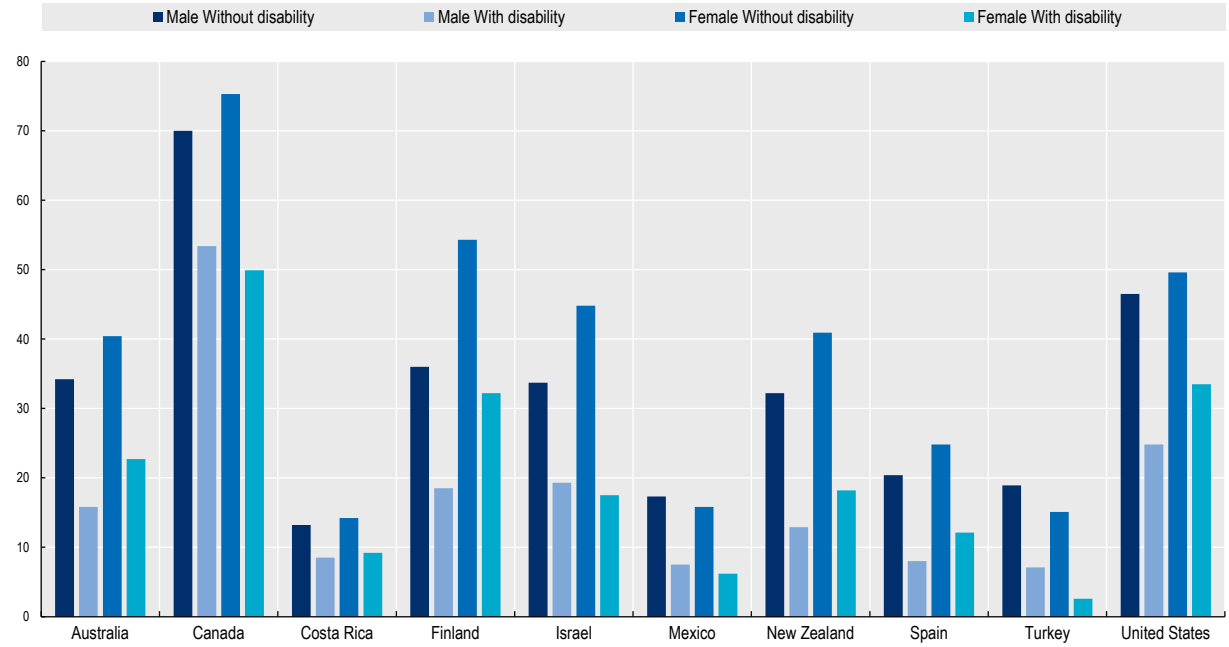
in terms of enrolment, graduation and employment outcomes (Brussino, 2020[11]). Moreover, students with SEN tend to suffer from a lack of social inclusion and experience worse social and emotional outcomes compared to their peers. Evidence in this Section shows that inclusive settings can be beneficial to promote in academic and social outcomes of students with SEN, but also for peers without SEN in terms of acceptance of diversity (UNICEF, 2014[106]).

2.1.1. Academic and social outcomes

Academic achievement and attainment

Students with SEN are impacted both in short- and long-term outcomes, especially when their specific education needs are incorrectly or inadequately catered for. UNICEF estimates that out of the 93 million children living with an impairment or a disability around the world, 50% are not in school, compared to 13% of peers without disabilities (UNICEF, n.d.[107]). Moreover, the 2011 World Report on Disability states that children with disabilities are less likely to start school than their peers without disabilities and have lower rates of staying and being promoted in schools. Education completion gaps are found across all age groups in both low-income and high-income countries, although the pattern is more pronounced in poorer countries (WHO and World Bank, 2011[108]). Evidence from the Washington Group on Disability Statistics (WG) shows (Figure 2.2) that in the OECD countries, reported data on university completion rates disaggregated by disability status, both male and female individuals with a disability have lower completion rates than their peers. In Canada, for instance, on average 53% of males with disabilities complete university, against around 70% of males without disabilities (Washington Group on Disability Statistics, 2018[109]).

Figure 2.2. University completion rates disaggregated by disability status and gender



Note: University completion: percentage of a cohort of individuals who have completed an undergraduate university degree. All countries reported data for individuals aged 25-54 except Finland, which reported the data for people aged 29-64 years. The countries have been selected based on their status as Members of the OECD, from the countries reported by the Washington Group.
Source: Washington Group on Disability Statistics (2018[109]), Selected SDG Indicators Disaggregated by Disability Status, https://www.washingtongroup-disability.com/fileadmin/uploads/wg/Documents/Disagregation-Data-Report_.pdf (accessed 15 February 2020).

People with physical impairments also have a lower educational status on average, a lower-income household and are less likely to be employed (UNICEF, 2015[110]). This is especially true for households with children with impairments, in particular in countries where students with physical impairments are still excluded from schools and parents have to be full-time carers (Ibid).

Inclusive education settings can improve such outcomes. A meta-analysis of 24 studies developed between the years of 1980 through 2013, found that students with SEN have greater overall gains in academic outcomes when included in mainstream education, compared to their peers with similar difficulties in segregated classrooms (Oh-Young and Filler, 2015[111]). In addition, children with learning disabilities or developmental disorders have shown to develop better behaviours and improved social skills in inclusive settings. For example, students with Down syndrome who attend mainstream classrooms, compared to those who attend special education, were found to have better expressive language, literacy skills and fewer behavioural challenges (Buckley et al., 2006[112]). Moreover, attending and receiving support within inclusive education settings increases the likelihood of enrolment in higher education for students with SEN (European Agency for Special Needs and Inclusive Education, 2018[88]).

A frequent argument against inclusive education is that it could have an adverse effect on the achievement of the children without special educational needs. The arguments against inclusion propose that children with SEN occupy the teachers' attention, which might adversely affect the other children (Dyson et al., 2004[113]; Huber, Rosenfeld and Fiorello, 2001[114]). In contrast, proponents of inclusive education sustain that in inclusive classes there is more adaptive education, which might have a beneficial effect on all students (Dyson et al., 2004[113]). Moreover, the support teachers or teacher assistants that are generally core staff in inclusive systems, might have a positive effect on the children without SEN as well.

Some studies have shown that in such contexts, levels and standards of learning for children without SEN are not impacted, contrary to common concerns towards inclusive settings (Peltier, 1997[115]). Overall, literature has identified mostly positive or neutral effects of inclusion on the academic achievement of students without SEN, in particular at the lower education levels (Kart and Kart, 2021[116]). Some researchers have also found results that suggested a differential impact on high- and low-achieving students. Low-achieving students seemed to benefit from the curricula and additional support in inclusive classes, whereas high-achieving students might experience adverse effects (Ruijs and Peetsma, 2009[89]). The neutral results would then be caused by this differential effect.

Disciplinary issues

Within schools, it often appears that students with SEN incur into disciplinary issues at higher rates compared to their peers. For instance, the Australian Royal Commission into Violence, Abuse, Neglect and Exploitation of People with Disability finds that students with special education needs experience higher rates of suspension and expulsion from school than students without SEN (Australian Institute for Teaching and School Leadership Limited, 2020[117]).

Bullying

Students with SEN also appear to be more likely to experience bullying compared to peers without SEN. A survey conducted by Mission Australia showed that more than twice the number of young people with a disability (aged 15-19) had experienced bullying in the previous twelve months (43%) compared with respondents without a disability (19%). The bullying included physical bullying (e.g. hitting, punching) and cyberbullying (e.g. hurtful messages, pictures or comments) (Hall, 2020[118]). For these young people, levels of concern about mental health, bullying, emotional abuse and suicide were higher when compared to respondents who did not identify as living with a disability. Furthermore, this issue appeared to also have an intersectional dimension, as women aged 18–29 with a disability appeared to be twice as likely to experience sexual violence as young women without disabilities.

Socialisation

Literature has also shed light on the link between inclusive education and social inclusion, mediated by friendships and peer relationships developed in school (European Agency for Special Needs and Inclusive Education, 2018[88]). With regards to friendships and peer interactions in compulsory education, evidence shows that social interactions in inclusive settings are a prerequisite for the development of friendships and other social skills and behaviours (Ibid). Some studies show that inclusive education can provide the space for social interactions to take place, leading to the development of friendships, social and communication skills, support networks, a sense of belonging and positive behavioural outcomes (Katz and Mirenda, 2002[119]; Guralnick and Bruder, 2016[120]). Also, as education can provide individuals with the skills, experience and empowerment to vocalise their opinions, inclusion in education can be a first step towards increasing political participation and social justice for people with disabilities (Morgon Banks and Polack, 2015[121]). Therefore, inclusive education can improve individual and family well-being while encouraging greater acceptance of diversity and the development of more tolerant, equitable and cohesive societies (Ibid.).

Inclusive education settings can also have a positive impact on the social outcomes of students without SEN. A growing body of research indicates that contacts with students with SEN transforms most effectively any negative or prejudiced attitudes (UNICEF, 2014[106]). This evidence highlights the importance of starting inclusive initiatives as early as possible, along with strengthening learning and participatory processes. LeRoy and Simpson (1996[122]) found that primary students without disabilities in inclusive settings in Michigan, United States, were more positive and interactive with their peers with disabilities than secondary-age students. 80% of elementary students indicated that they appreciated students with disabilities in their classrooms, between 90%-100% that they talked and played routinely with them, and between 65% and 70% that they spent free time with them and considered them friends (LeRoy and Simpson, 1996[122]). A recent review by Kart and Kart (2021[116]) found that students without SEN have socially benefited from being in inclusive classrooms with students with SEN, in particular in terms of reduction of fear, hostility, prejudice, and discrimination as well as increase of tolerance, acceptance, and understanding.

However, as students with disabilities in many countries remain isolated from mainstream settings, most members of society will typically have had little exposure to children with disabilities and therefore not had the opportunity to develop an acceptance of diversity. In terms of academic outcomes, when it comes to the rest of the class, most available evidence reports neutral (Kalambouka et al., 2007[123]) to positive effects of mainstreaming (Black-Hawkins, Florian and Rouse, 2007[124]; Demeris, Childs and Jordan, 2007[125]) students with SEN with students without SEN.

2.1.2. Economic and societal outcomes

Labour outcomes and increased life expenses

Households with people with disabilities generally earn less because of limited employment opportunities, including as a result of lower education attainment and because other household members have to be caregivers (UNESCO, 2020[10]). Overall, individuals with SEN tend to have poorer life outcomes than their peers, which translate into individual costs and societal losses.

The main costs incurred by an individual due to mental disorders, physical impairments or learning disabilities – to varying extents – can be summarised by the following categories (Rogge and Janssen, 2019[126]): i) Medical and healthcare service costs; ii) Therapeutic costs; iii) Special education costs; iv) Costs of production loss; v) Costs of informal care and lost productivity of family/caregivers; and vi) Costs of accommodation, respite care and out-of-pocket expenses.

Welfare and societal costs

People with SEN are disproportionately represented among unemployed ones and those with high dependency on social grants (UNICEF, 2015[110]). For instance, individuals with ADHD are less likely to be employed full-time than their peers, and have lower income, with an estimated cost of USD 67 to USD 116 billion (EUR 55.3 to EUR 95.8 billion[6]) annually in the United States, mainly due to workforce productivity losses (Biederman and Faraone, 2006[69]). Mental disorders, more broadly, take a heavy toll those affected by them, who experience disproportionately high levels of premature mortality, in particular, due to suicide, which is the second most common cause of death among young people worldwide (WHO, 2013[127]). An interesting study from 2015 estimates that autism costs $268 billion per year in the United States and that it could rise to USD 616 billion (EUR 221 to EUR 508.6 billion) by 2025 (Leigh and Du, 2015[128]). However, the authors also note that behavioural interventions for children with autism could halve costs for young adults in 2025, meaning that the cost of autism would drop by roughly USD 28 billion (EUR 23.1 billion).

Justice system

There also exists a correlation between untreated mental disorders and criminality, as witnessed by the prevalence of these disorders amongst prison populations (WHO, n.d.[129]).

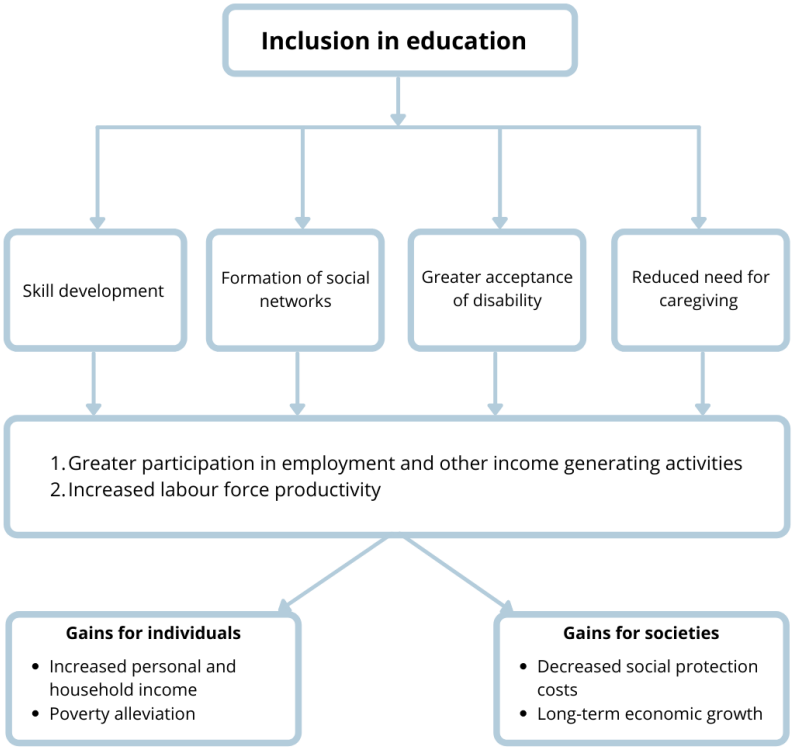
Furthermore, people with disability are often over-represented in the justice system. For instance, the 2019 Justice Project report by the Law Council of Australia states that people with disability 'have high levels of interaction with the criminal justice system, both as victims and offenders', and that women with disability are especially 'vulnerable to crime and abuse' (Law Council of Australia, 2019[130]). Moreover, they report that legal problems are often related to non-legal needs, such as health problems, unemployment, social isolation or homelessness. Similarly, a 2018 report by Human Rights Watch indicates that almost half of all people entering prison in Australia have a disability, particularly cognitive or psychosocial disabilities.

For all the above reasons, promoting inclusion in education has the potential to generate substantial financial and social gains at the individual, family, community and state levels (Morgon Banks and Polack, 2015[121]). Indeed, an important finding for literature is that inclusive education leads to greater employment opportunities for people with SEN. In Norway, for example, some longitudinal studies found that the likelihood of attaining economic independence through employment was approximately twice as great for young people educated in inclusive settings compared to those taught in special classes (Myklebust and Ove Båtevik, 2005[131]). This analysis finds that placement in special or segregated settings entails risks, not only in terms of lower chances of attaining competences, but also due to lower vocational prospects for students that drop out of special settings rather than inclusive ones (Ibid.). A further example comes for Coyle (2012[132]), who suggests that being educated in an inclusive setting, rather than a separate one, increases the likelihood of employment after graduation from secondary school. White and Weinder, too, suggest that one of the strongest predictors of paid, community employment for people with disabilities following school is the degree to which they were included in mainstream education with age-appropriate peers prior to graduation (White and Weiner, 2004[133]). Specific country examples from middle-income countries provide additional information, in terms of quantitative estimates of such gains. Firstly, a study from the Philippines notes that increased schooling is associated with higher earnings among people with disabilities, generating an economic rate of return to education of more than 25% (Mori, Reyes and Yamagata, 2009[134]). Whereas in China it was estimated that each additional year of schooling for people with disabilities led to a wage increase of approximately 5% for rural areas and 8% for urban areas (Liao and Zhao, 2013[135]).

[6] The conversion is estimated computed with 2021 rates, for simplicity.

A possible pathway by which inclusion generates economic advantages for individuals, families and governments is presented in Figure 2.3. The figure suggests that inclusion, through various forms of personal improvement, fosters greater participation in employment and other paid activities. This represents gains for individuals with SEN, their families and societies as a whole.

Figure 2.3. Inclusive education pathways to economic gains



Source: Adapted from Morgon, Banks and Polack (2015[121]), The Economic Costs of Exclusion and Gains of Inclusion of People with Disabilities: Evidence from Low and Middle-Income Countries, International Centre for Evidence in Disability, London School of Hygiene & Tropical Medicine, https://www.iapb.org/wp-content/uploads/CBM_Costs-of-Exclusion-and-Gains-of-Inclusion-Report_2015.pdf (accessed on 12 February 2021).

2.2 Immigrants and refugees

The United Nations Department of Economics and Social Affairs (UNDESA) regards the mega-trends of demographic change, climate change, technological change and international migration and urbanisation as modern development and critical to societal functioning (Trask, 2020[136]). These trends are bound to have profound implications for families and their local and global communities, and to influence one another. For instance, low birth rates in high-income countries coupled with ageing populations, social inequality and pay differentials between various parts of the world, and increasing ethnic strife guarantee that individuals from low-income regions will continue to need or desire to migrate to other parts of the world and it is widely projected that this phenomenon will grow (IOM, 2020[137]). There are some clear benefits to this phenomenon (Trask, 2020[136]). For instance, especially for countries that are experiencing large immigration flows, international migration may slow the ageing process, at least temporarily, since immigrants tend to be of young working ages (Ibid.). However, immigrants who remain in the host country

eventually age themselves raising questions about nationality and citizenship, benefits, and the appropriate policies that help them integrate in a mutually beneficial and positive manner.

Most of the OECD countries have seen a rise in the number of students with immigrant backgrounds in recent years, following various waves of migration flows. While international mobility has developed into a major driver of population change in many OECD countries, people with immigrant backgrounds tend to remain over-represented in the disadvantaged socio-economic strata of the population. In 2015/16, the number of immigrants aged 15 and older in OECD countries stood at 120 million, compared to 78 million in 2000/01. Moreover, 54% of worldwide immigrants reside in the OECD and this share been increasing in the past 15 years, to the point that the share of immigrants in OECD population reached 12% in 2015/16 (OECD, 2019[138]).

Children make up a substantial share of immigrants and refugees worldwide: of the 244 million international immigrants identified by UN agencies in 2015, 31 million were children, 11 million of whom were child refugees and asylum seekers (UNICEF, 2016[139]). This means that one in every eight immigrants is a child and about half of the world's refugee population is made up of children (ibid.).

Educational opportunity is a major driving factor for many children and families who choose to migrate, but refugee and immigrant children frequently face multiple barriers to beginning and continuing their education, often due to restrictive migration policies (UNICEF, 2016[139]). The lack of specific skills, language and knowledge of the host country frequently hampers their integration and personal well-being (OECD, 2018[140]). Society's ability to maintain social cohesion in the presence of large migration flows depends on its capacity to integrate immigrants. Education can help immigrants and refugees to acquire skills and contribute to the host country's economy. It can also contribute to immigrants' social and emotional well-being, and sustain their motivation to participate in the social and civic life of their new communities (OECD, 2018[140]). More information on the resilience of immigrant and refugee students in education can be found in OECD's Report "The Resilience of Students with an Immigrant Background" (2018[140]).

2.2.1. Academic and social outcomes

Educational access and attainment

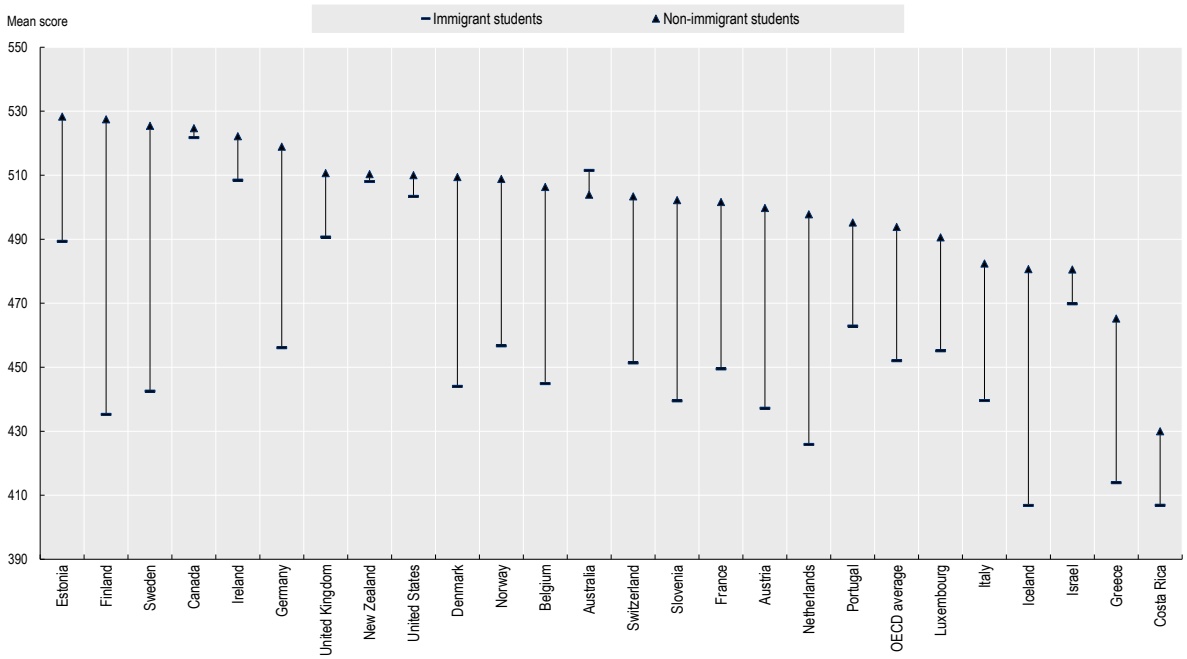
Limited inclusion in education for immigrant students starts in early care and education (ECEC) programmes. Immigrant children generally have lower rates of participation in non-parental care of any type, compared to native students (Karoly and Gonzalez, 2011[141]). According to Karoly and Gonzales, a large part of the gap can be explained by economic and sociodemographic characteristics of immigrant families, that influence affordability, availability and access to ECEC programs. Specific barriers to inclusion consist of language, bureaucratic complexity and distrust of government programmes, especially among undocumented immigrants. A German study has shown that children with a Turkish immigrant background not only start early childhood education and care (ECEC) later than native German children, but also attend ECEC with more unfavourable learning conditions. However, ECEC attendance can have a positive impact on their future inclusion in education, as researchers show that it has a positive influence on the acquisition of German language skills, depending on the pre-school's particular conditions (Becker, 2012[142]). Some countries, such as Italy, report that many students with immigrant backgrounds are not enrolled in an age-appropriate level at school. According to a 2015 study from The Italian National Institute of Statistics (ISTAT[7]), only 49% of those born abroad are enrolled in a class appropriate to their age. Almost 39% of immigrant students stated that they were enrolled in the class immediately preceding them

[7] The Italian National Institute of Statistics is a public research organisation, and the main producer of official statistics in Italy.

and 12.2% in classes in which the theoretical age of attendance was at least two years younger than that of the child (ISTAT, 2016[143]).

According to PISA 2018, later in their educational path, students with an immigrant background – both first and second generation[8] – are at least three times as likely as students without an immigrant background to score below the minimum level of proficiency in reading (Schleicher, 2019[144]). As shown in Figure 2.4, in all OECD countries, immigrant students scored worse in PISA 2018 than non-immigrants. The average score in reading amongst immigrant students across OECD countries was 452 points, while non-immigrant students averaged 42 points higher (OECD, 2019[79]).

Figure 2.4. Average performance in reading, by immigrant background



Note: Countries where less than 5% of students had an immigrant background are not represented in the figure. Countries are ranked in descending order of the mean score in reading amongst non-immigrant students.
Source: OECD (2018[80]), PISA 2018 Database, Table II.B1.9.3, http://www.oecd.org/pisa/data/2018database/

PISA 2018 also shows that immigrant students are at a clear disadvantage in most countries when it comes to their socio-economic status and use of the host country's language, although the results vary considerably between countries and between first- and second-generation immigrant students (OECD, 2019[79]). In general, an immigrant background is often one of the most relevant predictors of school dropout, especially when associated with a low socio-economic background (Hippe and Jakubowski, 2018[145]). In Europe, for instance, the percentage of students leaving school during compulsory education is twice as high among foreigners as among natives (European Commission, EACEA, Eurydice, Cedefop, 2014[146]). The disadvantage of migrant students clearly emerges also when analysing data on NEET or

[8] PISA defines students with an immigrant background as students whose mother and father were both born in a country/economy other than that where the student sat the PISA test. Moreover, it distinguishes between first-generation immigrant students, who are foreign-born students whose parents are also both foreign-born, and second-generation immigrant students, who are born in the country/economy where they sat the PISA test and whose parents are both foreign-born.

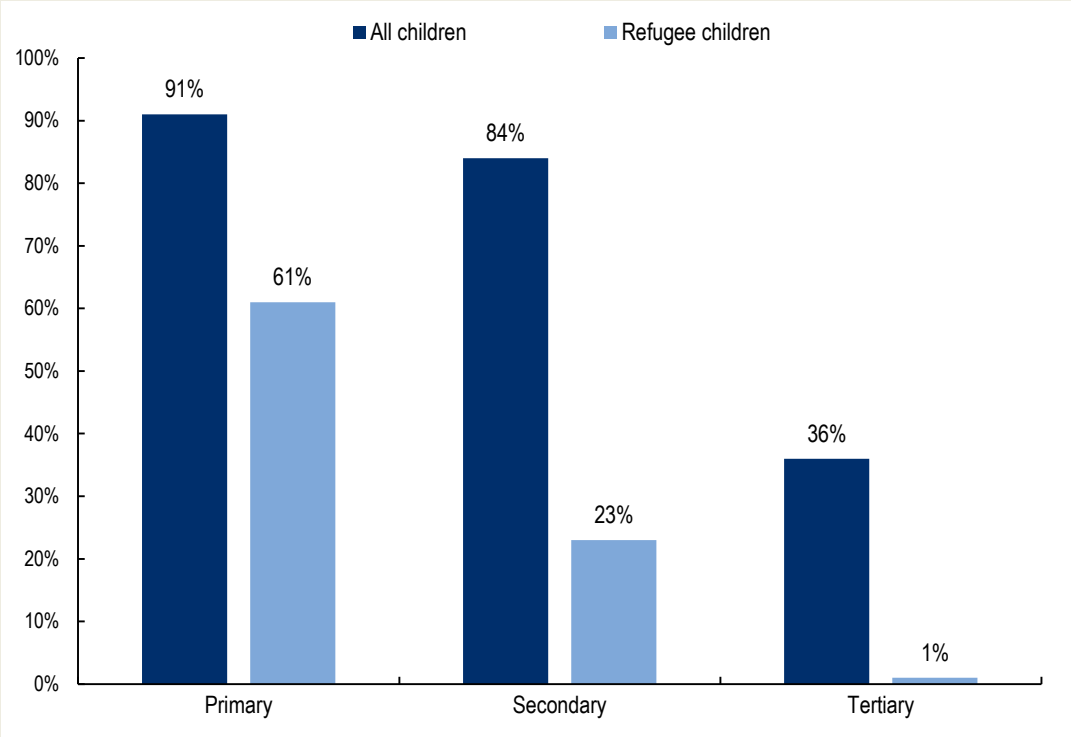
"Not in Education, Employment or Training", which refers to people aged between 15 and 29 years old (Ibid.).

Although data on refugee children is limited, the available information reveals that refugee children face more obstacles than other children with an immigrant background, as detailed in Box 2.1.

Box 2.1. The exclusion of refugee children and youth from education

Data on refugee students remains limited, but UN estimate that worldwide only around half of child refugees are enrolled in primary school and less than a quarter of adolescents are enrolled in secondary school. Overall, a refugee child is five times more like to be excluded from school than a non-refugee. Globally, 91% of children attend primary school whereas only 61% of refugee children do so. As refugee children become older, the challenges increase: only 23% of refugee adolescents are enrolled in secondary school, compared to 84% globally (UNHRC, 2017[147]).

Figure 2.5. Rates of schooling for refugee children and adolescents, globally



Note: The out-of-school rate for all adolescents refers to those of lower secondary school age (approximately 12–14 years), while the out-of-school rate for refugee adolescents refers to all those aged 12–17 years.
Source: UNHCR (2017[147]) Left Behind: Refugee Education in Crisis, https://www.unhcr.org/59b696f44.pdf (accessed on 10 June 2021).

While many OECD countries are making efforts to enrol newly arrived children in education, challenges still persist especially for children from pre-primary and upper secondary ages, who often fall out of national compulsory education systems (UNICEF, 2018[148]; Cerna, 2019[149]). In low-income countries, instead, fewer than half of refugee children hosted by low-income countries access primary education, and only 9% refugee adolescents access secondary education in these countries (2017[147]).
Refugee girls, in particular, remain particularly disadvantaged: in primary school, for every ten refugee boys there are fewer than eight refugee girls. At secondary school the ratio is worse, with fewer than seven refugee girls for every ten refugee boys (2017[147]).

Although data on refugee children is limited, what is available reveals that refugee children face more obstacles than other children with an immigrant background (Cerna, 2019[149]). A variety of factors influences children's and their families' abilities to access education throughout the process of migration and displacement. For instance, as children move between regions or states, they may not have the legal right to attend school, especially if they have an irregular status. Moreover, they could face barriers due to a lack of language or social skills necessary for their inclusion in the host education system. When they settle in new locations, legal and language barriers, fear of immigration enforcement, inability to transfer their previous schoolwork and xenophobia are all common factors that keep children out of classrooms.

The economic dimension of migration compounds all these factors. Refugee (or more broadly displaced) families often face great economic pressures that can force many children into work, rather than school. However, surveys from UN organisations have shown that education is a top concern for refugee children and their families, who rank education among their top three priorities alongside basic necessities, such as food and water.

Source: Cerna (2019[149]), "Refugee education: Integration models and practices in OECD countries", *OECD Education Working Papers*, No. 203, OECD Publishing, Paris, https://dx.doi.org/10.1787/a3251a00-en.; (UNHRC, 2017[147]), *Left Behind: Refugee Education in Crisis*, https://www.unhcr.org/59b696f44.pdf (accessed on June 2021); UNICEF (2016[139]), *Uprooted - the growing crisis for refugee and migrant children*, https://www.unicef.org/publications/files/Uprooted_growing_crisis_for_refugee_and_migrant_children.pdf.

Language proficiency

Language proficiency is key to the success of immigrant students in host countries. Some programmes, such as CLIL[9] (Content and Language Integrated Learning – bilingual education programmes), show that inclusive measures can help immigrant students to improve their language proficiency as well as general outcomes. In particular, Somers (2017[150]) suggests that CLIL is widely used among immigrant minority language students as it allows them to acquire linguistic, social, economic and symbolic capital. For immigrant students, CLIL can be a strategy for upward social-mobility, allowing them to access national and international language communities more easily, both for reasons of integration and to gain an advantage on the globalised job market (Somers, 2017[150]). In a CLIL programme, immigrant minority language students may not only develop age-appropriate proficiency in the majority language; they also gain opportunities to: i) acquire advanced levels of functional proficiency in an additional language without endangering their academic success; ii) take advantage of precisely the kind of pedagogy that is intended to facilitate access to both content and language; iii) develop positive self-image and motivation; and iv) acquire important capital for achieving success economically and socially (Ibid.). Nevertheless, the author reports that these programmes suffer from gatekeeping practices that deny access to immigrant students when they could greatly benefit from participation (Ibid.). Language has multiple implications for immigrant students. Since immigrant children are often exposed to high levels of psychological distress, they are at risk of mental and physical health problems. A study conducted in Italy on more than 2000 immigrant children in school investigated the impact of first- and second-generation immigrant children's proficiency in the host country language on their psychological well-being one year later (Cavicchiolo et al., 2020[151]). The authors found that children's language proficiency significantly predicted their psychological well-being one year later, both in first and second generations. This implies that improving the language skills of immigrant children could promote their mental health, regardless of their background and place of birth.

[9] Content and Language Integrated Learning (CLIL) is an approach in which a foreign language is used as a tool in the learning of a non-language subject in which both language and the subject have a joint role.

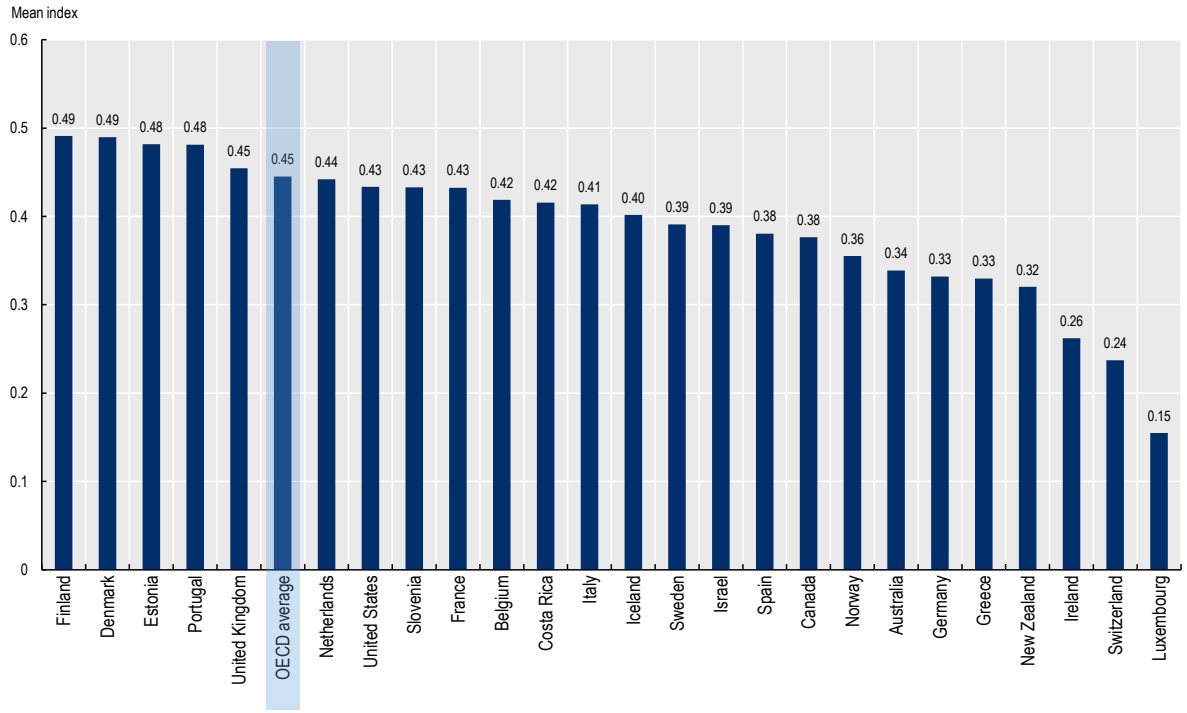
From this perspective, it has been recommended that immigrant children be included into mainstream classes and provided with additional language support during regular class instruction (Dumčius et al., 2013[152]). This could counter practices of withdrawing them from mainstream classes to offer them language support, an approach that can put immigrant pupils at a disadvantage (Nusche, 2009[153]). Moreover, Dumčius et al. (2013[152]) have collected examples of good practices for the inclusion (sometimes reported as integration, but comparable in nature) of immigrant students. An interesting example is that of the Catalonia region in Spain, which promoted the "Plans educatius d'entorn" programme to ensure successful educational attainment by pupils enrolled in primary and secondary education, regardless of their socio-economic background and with a specific focus on those with an immigrant background (Generalitat de Catalunya, 2016[154]). Relying on the project's strong connection with NGOs and local organisations, the initiative also targeted exclusion from school, focusing on immigrant youths out of school. The Region's strategy outlined six objectives, including the promotion of an inclusive education system with a focus on diversity and equal opportunities. The programme provides evidence of the effectiveness of implementing inclusive strategies, as it achieved an increase in school enrolment among immigrant students (Dumčius et al., 2013[152]). Furthermore, the *Generalitat de Catalunya* ("Government of Catalonia") reported qualitative evidence, which shows that there was an increased sense of belonging among those groups at risk of exclusion and an improved perception of diversity across the community (Generalitat de Catalunya, 2016[154]).

Isolation and concentration in schools

A further risk factor for immigrant students is segregation or isolation in specific schools, which, as mentioned earlier, is at the other end of the spectrum of inclusive education. Isolation means that students with an immigrant background tend to be concentrated in schools where there is a higher than average share of immigrant students. PISA estimates an isolation index that illustrates the extent to which a student with an immigrant background is likely to be surrounded by immigrant students. The isolation index has a value close to 1 when immigrant students are concentrated in schools that non-immigrant students are unlikely to attend. Figure 2.6 shows that the isolation index of immigrant students is at 0.45 on average in OECD countries.

Figure 2.6. Segregation of immigrant students across countries

Index of isolation of immigrant students in school



Note: Countries where less than 5% of students had an immigrant background are not represented in the figure. The isolation index measures whether immigrant students are concentrated in some schools. The index is related to the likelihood of a representative immigrant student to be enrolled in schools that enrol not immigrant student. It ranges from 0 to 1, with 0 corresponding to no segregation and 1 to full.
Source: OECD (2018[80]), PISA 2018 Database, Table II.B1.9.11, http://www.oecd.org/pisa/data/2018database/ (accessed on 13 February 2020).

The index shows the largest values, exceeding 0.45, in Finland, Estonia, Denmark, Portugal and the United Kingdom, meaning that in these countries, immigrant students are likely to attend schools with other immigrant students and are thus considered isolated from non-immigrant students (OECD, 2019[79]). Moreover, a report from the United States shows that almost half of students with limited English proficiency (LEP) attend schools where 30% or more of their fellow students are LEP, whereas nationwide almost two-thirds of students attend with 1% of LEP students (Ruiz-de-Velasco and Fix, 2000[155]). The study therefore suggests that new patterns of ethnic, economic and linguistic segregation may be emerging (ibid.). It should be noted, however, that isolation in specific school can often be related to geographical or neighbourhood isolation for immigrants, in particular in systems where school placement depends on catchment areas.

The concentration of immigrants can have a negative effect on their academic results. An Austrian study by Schneeweis (2015[156]) used the variation in the fraction of immigrant students among cohorts within schools to show that, while the share of immigrant students does not affect native students, immigrant students experience adverse effects in terms of grade repetition and high track attendance. The higher the share of immigrant peers, the more likely immigrant students are to repeat a grade and the less likely they are to attend high track schools. Moreover, Crul and Schneider (2009[157]) argue that the basic effect of segregation in primary school is that the more segregated a school, the lower a student's chances of progressing to a pre-academic track (gymnasium or its equivalent) in secondary school. The negative

spill-over effects for grade repetition are particularly strong amongst students from the same place of origin (Schneeweis, 2015[156]). School stratification can occur not only when students are clustered in specific schools but also in specific classes, and entails additional personal and social costs, including xenophobia, social exclusion, radicalisation, insecurity and violence (Brunello and De Paola, 2017[158]).

Segregation or lack of inclusion can also occur outside of school. Indeed, an important aspect of inclusion is relationships with peers, which can provide food for thought on different models of social integration. For example, in Italy, there are substantial differences between native and immigrant students: while only 9.3% of native students in lower secondary education states that they do not socialise with their classmates outside of school hours, while the percentage rises to 21.6% for non-native students. The difference is less marked in upper secondary schools and there are also differences depending on the students' country of origin (ISTAT, 2016[143]).

A further concern that affects many OECD countries is that a high concentration of students for whom the host country language is not their first language may have detrimental effects on the educational outcomes of native students. Evidence is mixed, with some studies finding negative effects and others finding no effects (Aarhus University, Denmark, 2015[159]). Researchers suggest that even though negative effects may be found for some countries, these are typically so small that the costs of many policies to deal with them (such as reallocation of immigrant children to schools with no or very few immigrant children) may well be greater than the benefits (Ibid.). A study from the EU, for instance, finds that while increasing the share of students with an immigrant background in class seems to influence negatively the test scores of native students, these effects tend to disappear once differences in individual and school characteristics and self-selection are taken into account (Mazza, 2019[160]). Yet, the study finds a degree of heterogeneity between EU countries. Even for the most negative case the effects are statistically significant, but substantively small (Ibid).

Despite the challenges they face, students with an immigrant background tend to have higher motivation and expectations to complete tertiary education compared to their native peers, after accounting for students' socio-economic status and academic performance, according to PISA 2018. These results may reflect factors other than academic performance, such as immigrant students' optimism and expectations of upward social-mobility (Heath and Brinbaum, 2007[161]). The higher the motivation and drive in immigrant students, the greater the potential for improved outcomes in school and beyond, if provided with the right support and means to achieve in more inclusive settings.

Well-being and attitudes

Further challenges to the inclusion of immigrant and refugee students depend on the school environment and the impact that it can have on their well-being and safety. Research indicates that these children are most likely to directly encounter discrimination in school settings, often in the form of insults, unfair treatment, exclusion and threats (UNICEF, 2016[139]). Children that suffer from these forms of social exclusion experience a range of repercussions such as distrust, hopelessness and problematic behaviour, as well as negative long-term attitudes about schooling and their own potential (Brown, 2015[162]). The social exclusion of these students can influence their academic outcomes, so that they perform worse academically, are at greater risk of dropping out and believe that doing well in school is neither important nor useful (Ibid). However, there exists evidence that suggests that interethnic contact is positively related to attitudes towards those with a diverse background (Pettigrew and Tropp, 2006[163]). PISA 2018 also analyses the association between the proportion of immigrant students in school and students' attitudes towards immigrants. PISA finds positive and negative associations in different countries, which, according to the report, could indicate that a positive association between attitudes towards immigrants and the proportion of immigrant students in school is conditional on successful integration policies and the availability of resources to fund quality education for all (OECD, 2020[164]).

For refugee children specifically, challenges frequently include negative stereotypes and discrimination (Cerna, 2019[149]). Refugees might be affected by the often negative attitudes of the host population towards refugees

2.2.2. Economic and societal outcomes

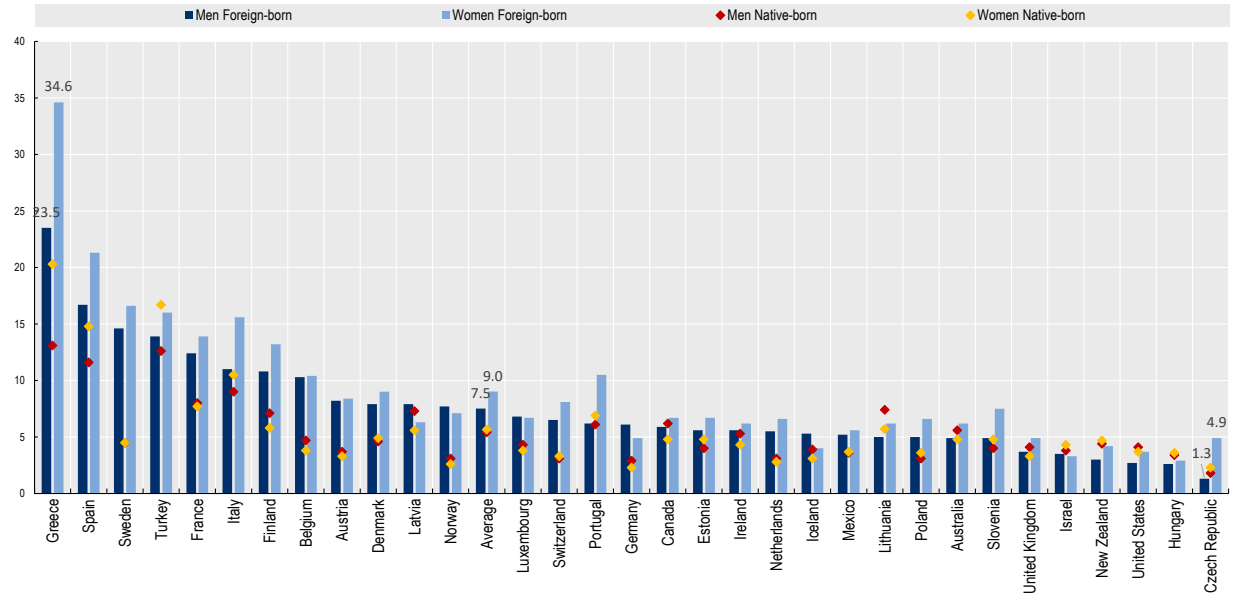
Labour market participation

According to the UN Department of Economic and Social Affairs, in 2015, 37 million international immigrants were between the ages of 10 and 24 (United Nations Department of Economic and Social Affairs, 2015[165]). Youth migration is an increasingly relevant phenomenon, as young people migrate in search of safety, survival, better standards of living, education and life opportunities (UNICEF, 2016[139]). This stream of migration has the potential to benefit both the young immigrants' countries of origin and destination. On the one hand, the migration of young people born in developing countries could support imminent labour needs in higher-income countries with ageing populations. On the other hand, remittances from diaspora youth can be sources of family support, technological transfer and investment in their home countries (International Labour Organization, 2015[166]). However, as a consequence of the lack of inclusivity in the education systems and the issues mentioned in Section 1 of the paper, immigrant and refugees tend to show lower labour market activity rates and income levels, be exposed to higher risks of unemployment and depend on social welfare more often (Brunello and De Paola, 2017[158]). Labour market prospects for refugees depend, as for other immigrant groups, on educational attainment: on average, better-educated individuals have much better employment prospects than those with only a basic education (OECD, 2018[167]). This can be explained not only by a better fit with labour demand in host countries, but also by an improved ability to acquire language skills or other unobservable factors correlated with formal education (Ibid).

Unemployment

As shown in Figure 2.7, in most OECD countries the immigrant population has higher unemployment rates compared to their native peers. This relationship holds true for both men and women, although women generally suffer from even higher unemployment than men, similar to the native population. On average across OECD countries, immigrant men and women show respectively 7.5% and 9% of unemployment rates, against 5.4% and 5.7% for native-born workers. Notably, immigrant women across various OECD countries have significantly higher unemployment rates than both immigrant men and native women, making them a particularly important group for policy makers to consider.

Figure 2.7. Unemployment rates, by immigration status and gender (2019)



Note: Countries are ranked in decreasing order by foreign-born men unemployment levels. Data was not available for Slovak Republic.
Source: OECD (2020[168]), Foreign-born unemployment, OECD.Stat, https://data.oecd.org/migration/foreign-born-unemployment.htm (Accessed on 30 November 2020).

School-to-work transitions are also more difficult for immigrants compared to the native-born populations, particularly women. Immigrant young adults are more likely than native peers to be NEETs, meaning that they are not in employment, formal education or training. The OECD's Migration Outlook (2020[169]) relates this trend to disadvantages associated with their lower educational background and their educational outcomes lagging behind those of their native peers. Moreover, women's potential reproductivity at that age partly explains their increased likelihood to be NEET compared to men (Ibid).

Qualifications

Moreover, the qualifications and work experience that immigrants gain abroad, particularly in non-OECD countries, tend not to be recognised in most host countries, generally because they were acquired in different languages and/or in education systems perceived as performing less effectively that the host country's system. There are also challenges for employers in determining the value and usefulness of skills that immigrants have gained through work experience and training in their origin countries (OECD, 2014[170]). The lack of language skills can be especially challenging to overcome for newcomers. To foster the inclusion of both refugees and first-generation immigrants through education systems, an important investment would be to bridge language gaps, since proficiency in the host country's language is a pre-condition for economic integration and further accumulation of host country-specific capital (Bonin, 2017[171]). Budría et al. (2018[172]) find that, on average, host language proficiency increases the probability of employment by around 15% and 22% among immigrant men and women in Spain. Their results can be considered causal, since the authors instrumented host language proficiency based on Bleakley and Chin's (2004[173]) strategy, which exploits the fact that younger children learn languages more easily than older ones. Furthermore, according to OECD calculations, immigrants who report language difficulties have over-qualification rates that are 25% higher than similar immigrants with stronger language skills, which indicates a clear loss of potential (OECD, 2014[170]). To avoid over-qualification issues that impede the effectiveness of labour markets, immigrants' and refugees' qualifications and prior learning should be

recognised (Ibid). Otherwise, children's inclusion in education and adults' inclusion in labour markets cannot be achieved. Students could also struggle to show and prove the skills and knowledge they acquired in systems that are considered less "prestigious" in terms of education and consequently be placed in an inappropriate academic year.

Modern macroeconomic theory recognises that advances in human capital raise individual productivity, which in turn generates generate higher economic output, closing the gap between native and immigrant parts of the population. This could offer a significant economic advantage for host countries. Moreover, lasting positive growth effects may arise from skilled people with immigrant backgrounds fostering innovation through enhanced diversity, entrepreneurship or international investment and trade (Bonin, 2017[171]).

Fiscal contributions and welfare system

Some data also shows that a further advantage for countries receiving immigrants is that a large proportion of both legal and illegal immigrants contribute more to their host countries than they receive (National Immigration Forum, 2018[174]), providing a positive net fiscal contribution. Moreover, the lifetime net contribution of people with immigrant backgrounds strongly rises with education levels, suggesting that improving the educational outcomes of immigrants can generate a substantial economic benefit for countries (Bonin, 2017[171]). Refugees also generate a net positive benefit to economies that host them (National Immigration Forum, 2018[174]). It has been estimated that in the United States, in the period between 2005 and 2014, total government expenditure on refugees amounted to USD 206 billion (EUR 170.09[10] billion), but in the same period refugees paid federal, state and local taxes of USD 269 billion (EUR 222.11 billion) (Ibid). Another study estimated that refugees earned USD 77 billion (EUR 63.58 billion) and contributed USD 20.9 billion (EUR 17.26 billion) in taxes in 2015 alone (New American Economy, 2017[175]). Refugees in the United States also appeared to have a particularly high entrepreneurship rate: 13% of refugees were entrepreneurs in 2015, compared to just 11.5% of non-refugee immigrants and 9.0% of the US-born population (ibid.). This group brought in USD 4.6 billion (EUR 3.8 billion) in business income that year.

Analyses on the welfare effect of different immigration waves[11] for OECD native citizens show positive effects on the real income of natives (Burzyński, Docquier and Rapoport, 2018[176]). Burzyński and colleagues find large, cross-country variations in the welfare impact of immigration, but these disparities are strongly persistent across immigration waves. Countries exhibiting the largest gains in terms of welfare effect, per their analysis, are Australia, Luxembourg, the United Kingdom, Switzerland, France and Austria. Moreover, the social investment case for education is explicitly addressed in a study by Bonin (2016[177]), which calculates the potential returns to promoting vocational education of recent refugees to Germany on the basis of net tax payments profiles by age and education. An analysis of a range of future scenarios shows that if 100 000 refugees attain, on average, the fiscal position of medium-skilled residents upon completion of the labour market integration process, instead of the position of low-skilled residents, the present value of the aggregate net fiscal burden from humanitarian immigration falls by about EUR 30 billion. Thus, if the government were to spend less than EUR 30 billion for lifting 100 000 refugees from low to medium education, this would be a profitable investment (Bonin, 2017[171]).

By improving the outcomes, achievement and well-being of immigrant and refugee students, inclusive education policies and practices can also provide economic benefits through future contributions. At the same time, they would increase social cohesion and empathy between students and citizens.

[10] The conversion is estimated computed with 2021 rates, for simplicity.

[11] Three cohorts of immigration: (i) immigrants who arrived between 1991 and 2000, (ii) those who arrived between 2001 and 2010, and (iii) those who arrived between 2011 and 2015 (referred to as the post-crisis wave).

2.3 Students belonging to ethnic groups, national minorities and Indigenous peoples

Individuals belonging to ethnic groups, national minorities and Indigenous people experience some shared risks and challenges within and beyond education systems, and tend to achieve lower academic and life outcomes compared to ethnic majority populations. Definitions of these three groups are available in the Annex (Definitions). Students from ethnic minority groups and Indigenous communities are different groups; hence, they require diverse policy responses based on their specific needs. Nonetheless, they often face significant challenges when it comes to education (Cerna et al., 2021[14]), some of which are similar to those of immigrant and refugee students mentioned in Section 2.2.

As reported by the OECD in 2017, through a study led with Member Countries' National Statistics Offices, OECD countries can be divided into three categories, based on whether and how they collect data for ethnic groups, national minorities and Indigenous peoples (Balestra and Fleischer, 2018[178]). The categories are:

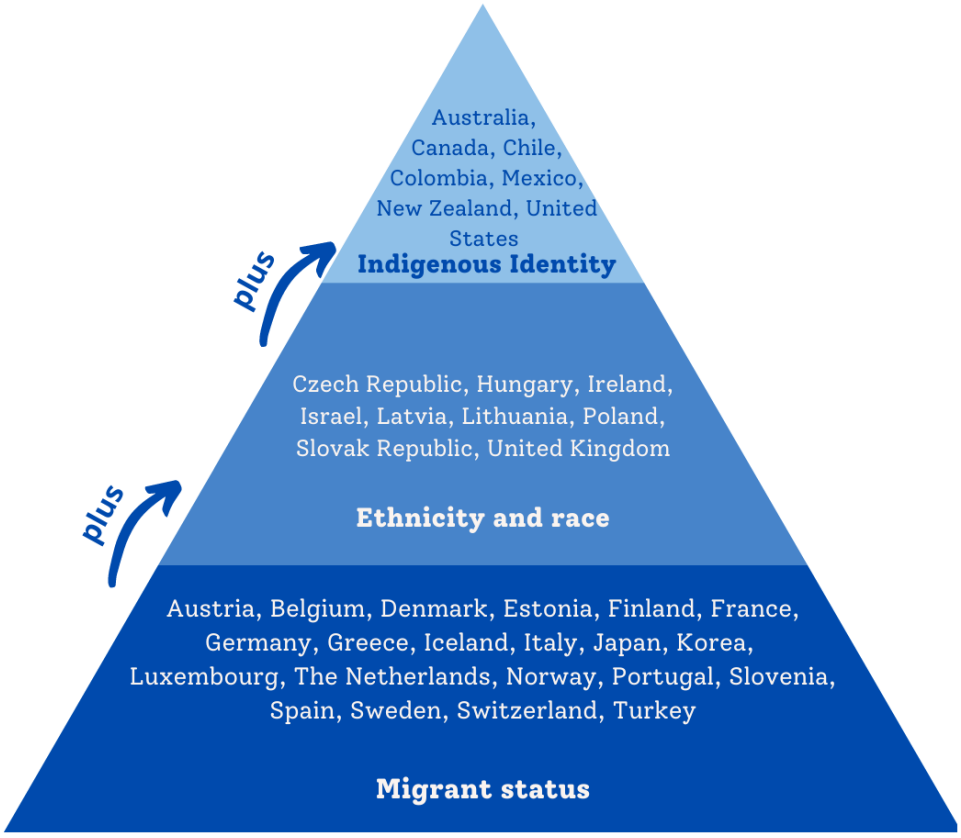
i. countries that only collect information on immigrant status – mainly older EU member states

ii. countries that gather additional information on race and ethnicity – mostly in Eastern Europe, as well as the United Kingdom and Ireland

iii. countries that collect data on racial/ethnic and Indigenous identity – in the Americas and Oceania.

As shown in Figure 2.8, the majority of European countries collect data on diversity based exclusively on immigrant status. In this case, legal frameworks and administrative categories usually do not allow the collection of information other than country of birth (nationality), which is still considered just one possible dimension of ethnicity and insufficient to establish consistent statistics. Only some countries belonging to the European Economic Community (EEC) and the United Kingdom have legal definitions of race and/or ethnicity and allow for disaggregated data in censuses. The way countries define ethnic minorities within their borders and collect related data influences policy making towards ethnic minority groups, including in education.

Figure 2.8. Diversity data collection in OECD Member Countries



Note: The figure has been modified compared to the original one in Balestra and Fisher (2018[178]), with Slovenia being included in the "immigrant status" group rather than the "ethnicity and race" one. The Statistical Office of the Republic of Slovenia (SURS) reported that they collected data on ethnicity for the last time in 2002 Census. This was enabled with the special legal act on Census which allowed collection of these data on voluntary basis. All next censuses (2011, 2015, 2018) were conducted as register-based census without data on ethnicity. Because the administrative sources (or databases) do not provide data on ethnicity for the entire population, this topic is not the content of the Register-based Census. The data on ethnicity were collected at the Central Population Register until August 2016 (but only on a limited base - only for people at the registration of residence).
Source: Adapted from Balestra and Fleischer (2018[178]), Diversity statistics in the OECD: How do OECD countries collect data on ethnic, racial and Indigenous identity?, *OECD Statistics Working Papers*, OECD Publishing, Paris, https://dx.doi.org/10.1787/89bae654-en.

Given these data collection and categorisation issues, it is challenging to make general and universal statements on the situation of individual belonging to ethnic groups, national minorities and Indigenous peoples in and beyond education. However, evidence exists from different countries on the conditions of students from specific ethnic groups or with an Indigenous background in education. For instance, Roma individuals represent the largest ethnic minority group in Europe and there are estimates regarding their situation, although the data collection entails several challenges (Rutigliano, 2020[12]). An OECD report on the Slovak Republic showed that Roma individuals tend to be subjected to lower educational attainment and higher dropout rates (OECD, 2019[85]). The reasons for this phenomenon are complex and context-specific, but usually include issues such as historically rooted discrimination, bullying, language barriers and misunderstood cultural variations within traditional education systems. On the contrary, Anglo-Saxon countries provide detailed information on their ethnic groups, which allows more specific estimates of their situation in school and beyond (National Center for Education Statistics, n.d.[179]).

A further difficulty in studying the conditions of ethnic groups or minorities is that these groups often overlap with immigrant populations. This implies that a large amount of academic and governmental research covers the two groups simultaneously or does not acknowledge the difference between them. To give an example of the magnitude of the overlap between the two groups, in 2004 Canada reported that 3 out of 4 recent immigrants[12] and 3 out of 5 mid-term immigrants were visible minorities[13], compared to only 1 out of 5 early immigrants and less than 1 out of 50 non-immigrants (Palameta, 2004[180]).

2.3.1. Academic and social outcomes

Participation and attainment

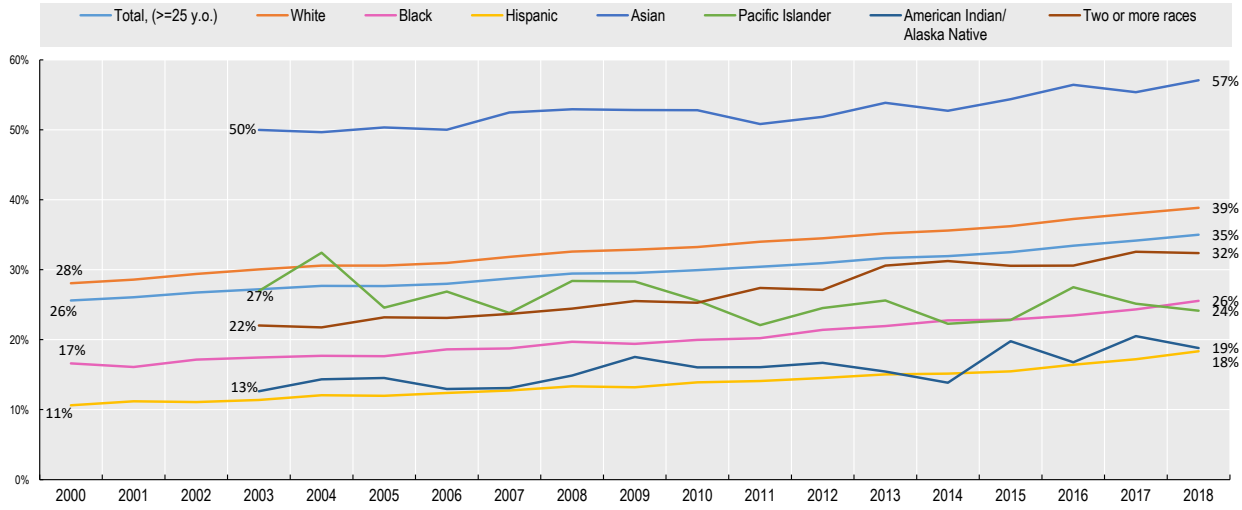
Data shows a pattern of continuous underachievement for certain ethnic groups. This trend starts with lower participation in early education, continues through further and higher education and persists in the labour market. In the United States, where ethnicity data is reported more systematically than in most other OECD countries, it appears that achievement in education differs significantly between ethnic[14] groups. According to de Brey and colleagues (2019[181]), these gaps stem from higher child poverty rates, which range from 31% of Black children and 26% for Hispanic children, to a much lower 10% for white children. Living in poverty during early childhood is generally associated with lower-than-average academic performance from kindergarten through to upper secondary school, which also contributes to lower-than-average rates of school completion (de Brey et al., 2019[181]). The gaps also persist at the tertiary level. For instance, in 2018, about 35% of US adults (25 years of age or older) had at least a Bachelor's degree, including 57% of Asian adults, 38.8% of White adults, 25.6% of Black adults, 18% of Hispanic adults, and 18.8% of American Indian/Alaska Native adults (NCES, 2018[182]).

[12] Canada divides immigrants into three groups based on years spent in the country. **Early immigrants** have been in Canada for at least 17 years, **mid-term immigrants** from 7 to 16 years, and **recent immigrants** from 1 to 6 years. *Source*: https://www150.statcan.gc.ca/n1/pub/75-001-x/10404/6843-eng.htm#Morissette.

[13] A visible minority is defined in Canada by The Employment Equity Act as “persons, other than Aboriginal peoples, who are non-Caucasian in race or non-white in colour". The term is used primarily as a demographic category by Statistics Canada. The visible minority population consists mainly of the following groups: South Asian, Chinese, Black, Filipino, Latin American, Arab, Southeast Asian, West Asian, Korean and Japanese. *Source*: https://www23.statcan.gc.ca/imdb/p3Var.pl?Function=DEC&Id=45152.

[14] Even though the United States generally adopt the term “race”, the Strength through Diversity Project prefers the term “ethnicity” due to sensitivity of various OECD countries towards the former term.

Figure 2.9. Rates of Bachelor's or higher degree attainment among persons age 25 and over, by race/ethnicity (United States)



Note: Data was not collected for Pacific Islander, American Indian/Alaska Native and two/more races before 2003.
Source: NCES (2018[182]), Digest of Education Statistics, https://nces.ed.gov/programs/digest/d18/tables/dt18_104.10.asp (accessed on 10 November 2020).

As shown in Figure 2.9, although rates of attainment have improved since the beginning of the century for most ethnic minorities, large differences still exist among groups. These differences translate into gaps in labour market outcomes, such as income levels and employment rates, mortality rates and health expectancy, and persist across generations (Egede, 2006[183]; Stronks et al., 2013[184]; Monnat, 2012[185]).

In European countries, too, there is data available on the gaps students belonging to ethnic groups and national minorities suffer. The group experiencing one of the largest academic gaps is Roma students (Rutigliano, 2020[12]). The percentage of Roma aged 16 to 64 who have completed upper secondary education remains below 15% across EU countries. The proportion is higher only in the Czech Republic (34%) and Slovakia (32%), but still far from the EU average of non-Roma individuals (European Union Agency for Fundamental Rights, 2017[186]). No other target group covered by the 2017 review of the European Union Agency for Fundamental Rights (FRA) reported such a low educational level overall. However, low levels of education – meaning no upper secondary education received – are also observed among other ethnic groups in Europe. In particular, this applies to respondents with Turkish backgrounds in Germany (42%); Sub-Saharan African backgrounds in Malta (11%), Portugal (33%) and Italy (42%); North African backgrounds in Italy (30%) and Spain (43%); and South Asian backgrounds in Italy (29%) and Greece (43%), thereby confirming a general assessment of low educational attainment among minorities (ibid.).

Language proficiency

One of the main obstacles for minorities in education, which requires particular support from educational systems, is proficiency in the language of instruction. The overall ability to speak, read and write in a country's language provides a strong basis for social inclusion, not only in the labour market but also in terms of personal well-being. A study from Italy explored the outcomes of an inclusive school intervention programme aimed at improving interethnic relations among primary school children in Italy, through foreign language (i.e., English) learning activities (Pirchio et al., 2017[187]). The results of the study show a reduced tendency of Italian pupils to reject their schoolmates after the intervention, against a control group (in a pre-post design). The authors argue that the narrative format implemented in such a programme might

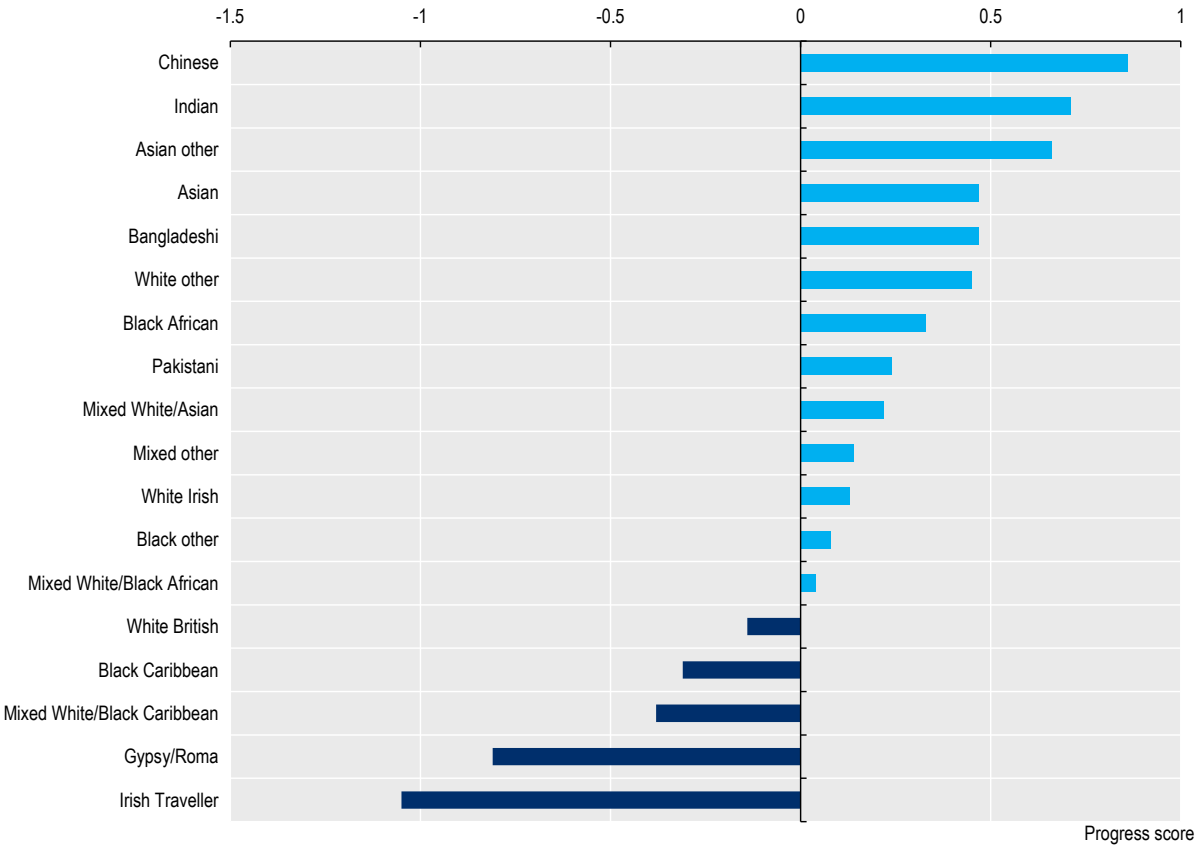
have helped to create the conditions that characterise the classroom as an inclusive setting, where inter-group contact reduces negative inter-group attitudes (ibid.). According to the authors, these conditions include situations where all the children were able to share a similar status (i.e. both native and minority children were relatively inexperienced "foreign language learners"), a high frequency of contact, common goals (i.e. learning a new language and telling stories) and the experience of positive emotions among peers.

Language learning is also a key aspect of the inclusion of Indigenous populations. For instance, in New Zealand there is research consensus that bilingual schooling programmes are highly effective for both Māori and Pasifika learners, according to Smythe (2020[188]). Smythe also reports that even though there exists a widespread conviction that bilingual approaches to learning represent a deficit to proficiency in the majority language, international findings support the fact that bilingual and plurilingual children do better in education where their languages are included in school-based learning (ibid.).

The role of child poverty

Child poverty has been shown to influence academic outcomes not just in the United States, but by studies conducted in Europe. In the United Kingdom, the Race Disparity Unit explores, among other topics, how child poverty and educational outcomes vary for different ethnic groups, including a possible relationship between these variables that is consistent across ethnic groups. From its analyses, the Race Disparity Unit is able to compute the average progress of students from different ethnic groups between the age of 11 and 16, compared with other students at similar points. The Race Disparity Unit finds that travellers of Irish Heritage and Roma students make the least progress between 11 and 16 years old, achieving scores of negative 1.05 and negative 0.81 respectively, although these results require caution in interpretation due to the sample size (Figure 2.10).

Figure 2.10. Scholastic progress between students aged 11 and 16 by ethnic group, United Kingdom



Note: The progress score indicates how much different ethnic groups progress between age 11 and 16 on average, compared with other students at similar points.
Source: Office for National Statistics, United Kingdom (2020[189]), Child poverty and education outcomes by ethnicity, https://www.ons.gov.uk/economy/nationalaccounts/uksectoraccounts/compendium/economicreview/february2020/childpovertyandeducationoutcomesbyethnicity (accessed on 25 February 2020).

Moreover, there is a correlation between the academic results of ethnic groups and their levels of poverty, measured with either free school meal (FSM) eligibility or the Income Deprivation Affecting Children Index (IDACI)[15] (Office for National Statistics, United Kingdom, 2020[189]). In the academic year 2018-2019, 14% of all students were eligible for FSM. Among them, Chinese and Indian ethnic groups had the lowest percentages of students eligible for FSM, 7%, while the highest percentages of FSM eligibility were seen in white minority groups: 56% of Traveller of Irish Heritage pupils and 39% of Roma pupils. These percentages also reflect the groups that struggle the most to progress throughout education. However, the Office for National Statistics (2020[189]) analysis also notices regional discrepancies that highlight different geographical impacts on diverse ethnic groups and underlines that there is no clear, consistent relationship between child poverty and progress in education. Additionally, where there does appear to be a link, it may be related to unconsidered variables and the educational resilience of different ethnic groups when living in poverty. This relationship suggests that although poverty could explain some of the barriers for ethnic

[15] An area based measure of poverty.

groups to succeed in education, it appears that currently education systems are unable to include these students fully and respond to their specific needs for support.

Likewise, in Latin America, the Afro-descendant minority continues to experience structural inequality, in terms of lower education attendance, attainment and achievement. Later-life outcomes of Afro-descendant minority groups are also worse than those of the rest of the population: in Colombia, for instance, their poverty headcount rate is 41%, compared to 27% for other ethnic groups (Freire et al., 2018[190]). In general, the percentage of children under the age 18 living in poverty increases for minority ethnic groups all around the world.

Indigenous groups around the globe also experience challenges for inclusion in mainstream education systems, which impact their outcomes all around. A focus on some of these students is provided in Box 2.2.

Box 2.2. The academic and social outcomes of Indigenous students

Indigenous students suffer from similar challenges and limitations as ethnic groups or national minorities. In various OECD countries, Indigenous children generally have not had access to the same quality of education as other children in their country enjoy (OECD, 2017[191]). Indigenous children tend to have lower attendance rates, academic outcomes, higher dropout rates and lower socio-emotional outcomes (Wannell and Currie, 2016[192]; Commonwealth of Australia, 2018[193]). Even in countries where the Indigenous population, such as the Māori and Pasifika in New Zealand, have steadily improved over the last decade, there gaps remain with their non-Indigenous peers (Stats New Zealand, 2020[194]).

In Australia poor educational outcomes are encountered at all levels of education for Indigenous students, from early childhood through to tertiary education. However, there have been improvements in educational participation and achievement in recent years with, for example, Year 12 apparent retention rate increasing from 38.0% in 2002 to 51.1% in 2012 for Indigenous students. There also appear to be substantial differences between the PISA scores of non-Indigenous students and Indigenous students, which can just partially be explained by differences in background characteristics (such as socio-economic status) and schools attended. Yet, data shown in Table 2.1 demonstrates the difficulty of reducing the gap in educational outcomes. While there have been absolute improvements in the educational performance of Indigenous students, general levels of education have also been increasing in non-Indigenous populations.

Table 2.1. Persons aged 15–64 by Indigenous status and highest year of school completed, 2006 and 2011 (%)

	Indigenous		Non-Indigenous	
Education level	2006	2011	2006	2011
Year 12 or equivalent	20.2	24.9	49.5	55.5
Year 11 or equivalent	11.3	12.5	11.5	11.0
Year 10 or equivalent	29.0	29.7	24.4	21.7
Year 9 or equivalent	13.4	12.4	6.4	5.4
Year 8 or below	12.7	9.2	4.0	2.9
Did not go to school	1.6	1.1	0.6	0.6
Not stated	11.9	10.3	3.6	3.0
Total	100	100	100	100

Note: Based on counts that are not adjusted to estimated resident population. Derived from 2006 Census of Population and Housing (ABS 2006) 2011 Census of Population and Housing (ABS 2011).

Source: Mahuteau, S., Karmel, T., Mavromaras, K. & Zhu, R. (2015[195]), Educational Outcomes of Young Indigenous Australians. Report submitted to the National Centre for Student Equity in Higher Education (NCSEHE), Australia. National Institute of Labour Studies (NILS), Flinders University, Adelaide, Australia, https://www.ncsehe.edu.au/wp-content/uploads/2015/11/Educational-Outcomes-of-Young-Indigenous-Australians-Report.pdf (accessed 16 February 2020).

Moreover, Indigenous people generally have lower rates of participation in the labour market, higher unemployment rates, higher poverty rates, limited access to housing, food insecurity and poor health levels compared to their non-Indigenous peers (Toulouse, 2016[196]; OECD, 2018[197]).

Social inclusion

The lack of inclusion in education affects the social inclusion that these groups experience later in life and the overall societal outcomes that are achieved. Roma populations are a striking case in point. Roma students' participation rates in early childhood education across Europe remains far below those of the population average (European Union Agency for Fundamental Rights, 2018, p. 25[198]), while their dropout rates remain high (European Union Agency for Fundamental Rights, 2016, p. 27[199]). In addition, the inclusion of minority groups in education has an impact on other groups' development. As children go through their early life experiences, they form their attitudes and beliefs about other groups, which may be harder to change as they grow older. Young people must have opportunities to interact with members of other ethnic groups for meaningful cross-group bonds to develop and diverse schools must offer more of these opportunities. Indeed, inclusive school environments are characterised by positive social experiences for all students (Nishina et al., 2019[90]), such as decreased bullying, reduced loneliness and greater numbers of cross-group friendships. A number of studies point to greater diversity predicting inclusivity in school, as measured by positive social experiences. More ethnically diverse schools (defined as schools that contained many ethnic groups each with relatively even representation in the school), have been found to have students that feel safer, less picked-on, less lonely and with less social anxiety compared with their same-ethnic counterparts in less diverse schools (Juvonen, Nishina and Graham, 2006[200]; Juvonen, Kogachi and Graham, 2017[201]). Moreover, studies on students in inclusive environments show that those who learn in such schools report greater interest in living and working in ethnically diverse environments when they become adults and are more likely to do so as adults. By contrast, ethnically isolated schools may limit opportunities for young people to challenge skewed perceptions and assumptions about people from other racial groups (Tropp and Saxena, 2018[202]). Furthermore, there is mounting evidence that social interactions between groups has a positive impact on social cohesion, and particularly, trust. Research on the United States and Canada show that white people living in diverse neighbourhoods are more trusting when they regularly talk to their neighbours (Stolle, Soroka and Johnston, 2008[203]). This highlights not only the role stereotypes play in eroding social cohesion, but also the importance of social interactions to overcome them (OECD, 2020[17])

There have been efforts to promote inclusive education models to improve outcomes for ethnic minority groups, amongst others. The European Union and the Council of Europe have implemented a project called "INSCHOOL Project", targeting schools where Roma children learn, in the Czech Republic, Hungary, Romania, Slovak Republic and the United Kingdom (Council of the European Union, n.d.[204]). The Project is built on the assumption that change needs to be reflected at the school level and in the children's environment, and that there is often a gap between the statements and requirements in policy documents and the reality in which these need to be implemented. Practice, the project reports, has proven that for schools to overcome the rift of exclusive teaching and learning approaches, they must re-examine what they teach, how they teach and how they assess learners' performances. The pilot phase – implemented between May 2017 and July 2019 – yielded positive results and the EU Council reports that most schools' environment was visibly improved. The project has now completed its second cycle of implementation, which ran from October 2019 to January 2021 (Council of the European Union, n.d.[204]).

2.3.2. Economic and societal outcomes

The impact of diversity on society and cohesion

Research on diversity has yielded varied results over the last couple of decades. In 2000 Putnam offered a negative view of diversity, specifically concerning social outcomes (Putnam, 2000[205]). He showed that in heterogeneous communities fewer people vote, volunteer, devolve to charity and work on community projects. In 2007, Putnam (2007[206]) found that diversity is negatively correlated with both in-group and out-group solidarity (i.e. what he defines as bonding and bridging capital) and with trust among neighbours across US metropolitan areas. However, Helliwell (2003[207]) suggests that the negative interaction of diversity and social capital found in Putnam (2000[205]) is the product of governmental policy and therefore this negative relationship cannot be generalised. Similarly, Uslaner (2011[208]) reassessed Putnam's findings and showed that the spatial segregation of diversity is responsible for lower bonding and bridging capital across (sets of) US cities and world countries. Spatial segregation in particular seemed to have driven re-considerations of findings on the effects of cultural and ethnic diversity on socio-economic outcomes (Khovanova-Rubicondo and Pinelli, 2012[209]). For instance, Alesina and Zhuravskaya (2011[210]) showed that it is the spatial segregation of diversity and not diversity *per se* that leads to increased instability, lower quality of regulation and weaker rules of law across 90 countries. Overall, according to Khovanova-Rubicondo (2009[211]), it could appear that, framed within efficient institutions, diversity may indeed serve as a valuable asset for society. In particular, democratic institutions and a tolerant environment that allow differences to express themselves and interact freely seem pre-conditions for reaping the benefits of diversity (Khovanova-Rubicondo and Pinelli, 2012[209]). Tolerance and appreciation of diversity are key values that can be imparted to students within education and by inclusive education systems in particular.

Labour market outcomes

From the perspective of economic outcomes, ethnic groups and national minorities tend to have low employment levels across OECD countries. A study on the Netherlands measured employment gaps between native graduates and graduates from Moroccan, Turkish, Antillean and Surinamese origin and a remaining group of graduates from other non-western and western countries (Bisschop, ter Weel and Zwetsloot, 2020[212]).

Indigenous people are another vulnerable group that experiences high levels of inequality and exclusion in daily life: according to the World Bank, around 15% of the world's extreme poor, or 476 million, are Indigenous (World Bank, 2020[213]). They have a life expectancy up to 20 years lower than non-Indigenous worldwide, as they often live in inaccessible or remote areas, which makes it difficult to access basic services, including internet or a digital identity (Ibid).

Improving levels of inclusion of Indigenous students would reap benefits for their countries. Indigenous people in Canada, Australia and New Zealand are growing at a faster rate and have a younger population than their non-Indigenous peers (OECD, 2017[191]). In In Canada, for instance, the Indigenous population increased by 42.5% between 2006 and 2016, more than four times faster than the non-Indigenous population over the same period (Statistics Canada, 2018[214]). Program and policy interventions have assisted Indigenous students in making significant strides in closing the academic gap, compared with non-Indigenous students. Although the narrowing of gaps is observed, resulting unemployment rates continue to be higher than non-Indigenous students, suggesting that the transition from education to the labour market is not as smooth as for the Indigenous population. If educational outcomes for Indigenous students do not improve and the proportion of these students continues to increase, the overall educational performance of the country could worsen. This could also translate into poorer labour market outcomes and human capital, along with higher social security expenses for the country. Canada also shows higher levels of unemployment for the Indigenous population aged 15 and over, regardless of the level of

education achieved (Table 2.2). This may suggest that the transition from education to the labour market is not as smooth for the Indigenous population, or that the education offered does not address this population's needs as well as it does for non-Indigenous' needs. The higher unemployment rates reported for all groups in 2020 account for the impact of the COVID-19 crisis, and they should thus be interpreted with care.

Table 2.2. Unemployment rates of population aged 15 and over, total and with Indigenous identity, by educational attainment, Canada

Characteristics of the population aged 15 and over	Educational attainment	2015	2016	2017	2018	2019	2020*
Population, Canada	All levels of education	6.9A	7.0A	6.3A	5.8A	5.7A	9.5A
	Less than high school	13.9A	13.9A	12.6A	11.7A	11.2A	16.3A
	High school	8.3A	8.3A	7.4A	7.0A	7.2A	12.9A
	College or trade	5.6A	5.9A	5.5A	4.9A	4.7A	8.3A
	University	4.7A	4.9A	4.4A	4.3A	4.1A	6.7A
Population, off reserve Indigenous	All levels of education	12.4A	12.4A	11.3A	10.1A	10.1A	14.2A
	Less than high school	22.8B	22.4B	19.7B	18.9B	18.8B	22.0B
	High school	12.6B	12.9B	12.1B	11.4B	11.2B	16.0B
	College or trade	9.0B	9.0B	8.8B	7.7B	7.1B	11.8B
	University	5.7B	5.8B	5.6C	3.5C	5.7D	8.4B

Note: Symbols legend: A data quality: excellent, B data quality: very good, C data quality: good, D data quality: acceptable. * Data from 2020 account for the impact of COVID-19 on unemployment rates.
Source: Statistics Canada (2021[215]), Table 14-10-0361-01, Unemployment rates of population aged 15 and over, total and with Indigenous identity, by educational attainment, Canada, https://doi.org/10.25318/1410036101-eng.

As mentioned above, it can be troublesome to distinguish between immigrant and ethnic minority populations, who tend to overlap. In Canada, it was reported that the intersectional condition of being both a visible minority[16] and an immigrant was correlated with low economic outcomes. In particular, the visible minority status was linked with low income for immigrants but not for non-immigrants, since Canadian-born visible minorities were no more likely than others born in Canada to experience low income (Palameta, 2004[180]).

Fiscal benefits

The World Bank estimates that the fiscal benefits alone that would be achieved from including Roma people far outweigh the investment of closing the education gap between Roma and non-Roma, which would only be approximately 30% of fiscal benefits from equal labour market opportunities across four European countries[17] (World Bank Group, 2010[70]). According to their estimates, the combined economic benefits for Central and Eastern Europe and Balkans (CEB) as a whole is EUR 3.4 – 9.9 billion annually. These benefits would not only derive from an expected reduction in social assistance spending, but also from the recovery of foregone payroll and income tax revenues, due to low market inclusion (Ibid.). This

[16] A visible minority is defined in Canada by The Employment Equity Act as "persons, other than Aboriginal peoples, who are non-Caucasian in race or non-white in colour". The term is used primarily as a demographic category by Statistics Canada. The visible minority population consists mainly of the following groups: South Asian, Chinese, Black, Filipino, Latin American, Arab, Southeast Asian, West Asian, Korean and Japanese. *Source*: Statistics Canada (2021[324]), Visible minority of person, https://www23.statcan.gc.ca/imdb/p3Var.pl?Function=DEC&Id=45152 (accessed 14 December 2021).

[17] Bulgaria, Czech Republic, Romania and Serbia.

evidence suggests that early inclusion of these populations could significantly improve their own outcomes and those of their countries.

Health outcomes

Health issues are not only common among Indigenous people, but also ethnic minorities. For instance, results from the United Kingdom indicate that once differences in age, gender, the length of residence in the country, income and deprivation are controlled, there remain significant ethnic differences in health among people aged 60 years and over (Evandrou et al., 2016[216]). This suggests that although ethnic inequalities in socio-economic status make a significant contribution to ethnic inequalities in health, other factors are equally important. Ethnicity-associated health disparities among young people are also a public health concern in the United States (Assari, Caldwell and Bazargan, 2019[217]). Worse health outcomes, in particular of Black and Hispanic youth, are attributed, at least in part, to lower socio-economic status and parental educational attainment (Ibid). These disparities can be seen across other domains, such as health risk behaviour, aggression and psychological well-being (Basch, 2011[218]; Wallace et al., 2009[219]; Assari and Caldwell, 2017[220]). However, as explained by the minorities' diminished returns theory[18], ethnic minorities, particularly Black individuals, gain fewer health benefits from the very same socio-economic resources, compared to whites (Assari, 2019[221]; Assari, Preiser and Kelly, 2018[222]).

A recent study (Assari, 2018[223]) shows that income mediates the interactive effect between ethnicity and education, suggesting that labour market discrimination may be one explanation for Black individuals enjoying less self-rated health benefits than white individuals from their educational attainment. This also points towards the lack of inclusion beyond education, to the point whereby even when minorities achieve the same levels as majorities – despite the larger barriers faced – they still suffer from exclusionary practices on the labour market. Inclusive education has the potential of creating more cohesive societies that can support societal inclusion, providing future generations with an ethos of inclusion (Ibid.). Researchers also find that among socio-economic factors, education has the greatest impact on voter participation, which is generally lower for ethnic minority groups, in particular, Black and Hispanic minorities (Xu, 2005[224]). One possible explanation is that minorities undergo different socialisation channels while being in education: the political socialisation provided by education increases the likelihood of registering and voting (Ibid). A more inclusive education system, which aims to improve all students' sense of belonging and social behaviour may also help to counterbalance this specific issue.

2.4 Gender

Gender is a well-documented factor of marginalisation in education. While 132 million girls are out of school globally (UNICEF, 2020[225]), OECD countries have made significant progress in narrowing or closing long-standing discrepancies in educational and job opportunities available to men and women. Yet, gender differences remain in a number of areas throughout life: boys still tend to outperform girls in mathematics while girls outperform boys in reading. Furthermore, although more women than men now have a tertiary degree, women are still under-represented in better-paid fields, such as science and engineering. Women also face lower employment rates and tend to be paid less than similarly educated men (OECD, 2020[226]). However, the gradual closing of long-standing gaps in academic outcomes and beyond over the last few decades suggests that, if offered equal opportunities, boys and girls, men and women have equal chances of fulfilling their potential (OECD, 2015[227]).

[18] The Minorities' Diminished Return (MDR) theory is defined as systematically smaller effects of socioeconomic status (SES) on the health and well-being of minority groups when compared to Whites (Assari, Preiser and Kelly, 2018[222]).

2.4.1. Academic and social outcomes

Progresses in women's participation and attainment

Historically, women have largely been under-educated with respect to men, as female education has long been restricted and even prohibited. Since then, the panorama on gender gaps has progressively evolved, to the point whereby women have now caught up with men and, in cases such higher education, secured positions of advantage over men (Borgonovi, Ferrara and Maghnouj, 2018[228]). In European countries, for example, females have higher tertiary educational attainment, lower rates of early leaving from education and training, and higher rates of adult participation in learning than males (Eurostat, 2018[229]). However, even though more females than males are enrolled in tertiary education in almost all regions, they lag behind men in graduating from science, technology, engineering and mathematics (STEM) degrees (UNESCO, 2018[230]).

Gaps in STEM

This phenomenon suggests that education systems may still be gatekeeping students based on their gender, rather than supporting everyone to follow their personal inclinations. Indeed, the 2018 PISA study also shows that girls tend to believe less in their abilities, in particular in mathematics, which may be one of the first fissures that widen the gender gap in students' pathways towards science-related careers. The teaching force's biases in the different supposed competences of females and males, and stereotypes in schoolbooks also contribute to a lower participation of women in STEM fields (OECD, 2019[231]). Moreover, even when they outperform boys, girls are less likely to choose fields of study that lead to science, mathematics, engineering or computing occupations. Again, females and males who are top performers in science or mathematics indicate very different career expectations, highlighting a major problem in choosing gender-atypical fields of study (Schleicher, 2019[144]). PISA 2018 demonstrates that among the best-performing girls in science or mathematics, only 14% expect to work as professionals in science or engineering, whereas 26% of the best-performing boys have such career expectations (ibid.). Moreover, on average across OECD countries in 2018, around one in three students state that they expect to work in a STEM-related field when they are 30 years old. When disaggregating this evidence, it emerges that 15% of boys, but only 7% of girls, report that they expect to work as professionals using science and engineering training, and in all PISA-participating countries, more boys than girls report that they expect to work in these types of occupation (ibid.). At the highest levels of education, women also tend to be under-represented: more advanced degrees are still awarded to men than to women (OECD, 2020[226]).

Boys underachievement and gender gaps in attitudes

While there are still more boys than girls among top performers in mathematics, 15-year-old boys are failing to achieve basic proficiency in reading, mathematics and science at greater rates than girls, according to PISA (OECD, 2019[79]). This is worrisome, as low performers tend to be less motivated and leave school early, which adds to lower rates of boys enrolling in tertiary education than girls and the risk of under-qualification. Indeed, the issue of boys' underachievement in compulsory education has been increasingly troubling for OECD countries over the last decade. Boys have higher rates of early school leavers than girls, such as in the European Union where, in 2019, 11.9% of boys against 8.4% of girls were early leavers[19] (Eurostat, 2020[232]). Rigid gender norms that are perpetuated by education systems, directly or indirectly, can hurt boys as much as girls. One factors that might affect boys' achievement is their disengagement from education, which can be proxied by levels of absenteeism. According to PISA 2018, in a majority of countries, boys were more likely than girls not only to have skipped a whole day of

[19] Early school leavers are defined as boys and girls aged between 18 and 24 with at most a lower secondary education and not participating in any education or training programme (Eurostat, 2020[232]).

school, but also to be late to school (OECD, 2019[233]). 51% of boys reported that they had arrived late for school, compared to 44% of girls (ibid.). According to older editions of PISA, boys in OECD countries were twice as likely as girls to report that school is a waste of time and were 5% more likely than girls to agree or strongly agree that school has done little to prepare them for adult life when leaving school (OECD, 2015[227]). Lack of punctuality, absenteeism, lack of sense of belonging and negative attitudes towards school are associated with low academic performance and negative outcomes, such as low levels of emotional well-being, school dropout, delinquency and drug abuse (Valeski and Stipek, 2001[234]; Baker, Sigmon and Nugent, 2001[235]; Lee and Burkam, 2003[236]; McCluskey, Bynum and Patchin, 2004[237]).

Psychological well-being

Students' psychological well-being is also influenced by gender-specific issues. Girls and boys report a different prevalence of mental disorders from childhood and particularly during their adolescence. A study from the United States found that the incidence of first onset of depression among students aged 12-17 was respectively 13.6% of boys against 36.1% of girls (Breslau et al., 2017[238]). Moreover, Threlfall and colleagues (2017[239]) also highlights that higher levels of depression and post-traumatic stress disorder (PTSD) are significantly associated with more school functioning problems. Furthermore, they suggest that school engagement fully mediated the relationship between depression and school functioning, and between PTSD and school functioning, both controlling for age, ethnicity and placement stability. They maintain that "school-wide interventions that increase school engagement may therefore be a valuable means of supporting positive school functioning for these adolescents as well as for other students with undiagnosed or unaddressed mental health needs" (Threlfall et al., 2017[239]). An example is provided by universal socio-emotional learning (SEL) curriculum, which targets students' attachment, engagement and commitment to their schools as a key means of promoting positive school functioning (Zins et al., 2004[240]). To do so, SEL programmes focus on the creation of supportive learning environments and the fostering of relationships between students, families and teachers (Durlak et al., 2011[241]). By developing school engagement, SEL programmes and similar interventions may serve a preventive role in interrupting the pathway between mental health problems and poor school functioning for all adolescents. As girls are more often affected by these issues, a more inclusive school setting that improves student engagement can respond not only to the needs of students with SEN, but also to those of girls: this is a clear example of an intersectional issue. Another example is that, according to the American Association of University Women (AAUW), rates of attempted suicides among the school-level population were higher among female (9.3%) than male (5.1%) students; higher among white female (7.3%), Black female (12.5%), and Hispanic female (10.5%) than white male (4.6%), Black male (6.7%), and Hispanic male (5.8%) students, respectively (AAUW, 2020[242]).

The condition of girls with SEN in education is pertinent. A growing body of research explores the compounding barriers that girls with disabilities experience at family, societal and institutional levels, leading to a trajectory of marginalisation. It appears that even though boys and girls with disabilities experience similar forms of social exclusion at school, girls incur additional risks. They are further impeded by socio-cultural perceptions of their learning and employment capabilities, and higher rates of sexual abuse. When girls with disabilities are excluded from education, they are also more likely to be excluded from employment opportunities and, with this, social status (Diamond and Winfield, 2018[243]).

2.4.2. Economic and societal outcomes

Country gains

Gender-based discrimination in education matters for economic growth. Previous empirical studies demonstrate that gender inequality in outcomes has a negative impact on growth (Ferrant, 2015[244]), especially when it relates to gender disparities in education and labour (OECD, 2012[245]). The link between

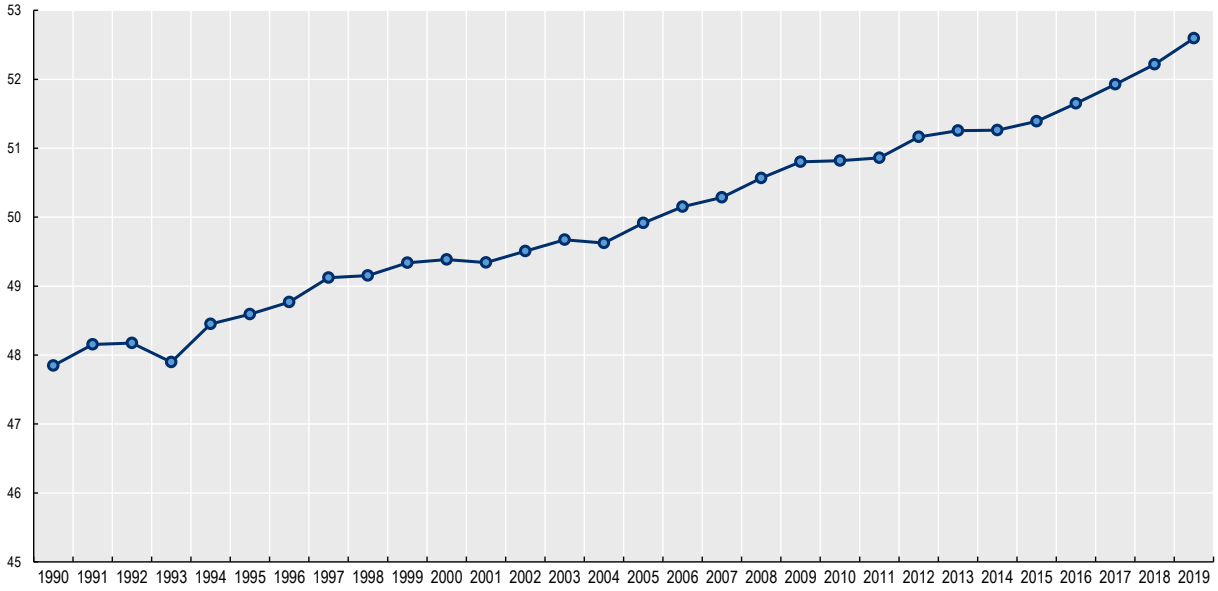
gender-responsive and inclusive education and improved learning outcomes, economic gains and country development, is indivisible (Diamond and Winfield, 2018[243]).

Employment outcomes

While in most OECD countries women attain higher levels of education than men, on average, they are less likely to be employed and earn less, even at education parity (OECD, 2017[246]). Moreover, although in most countries girls usually outperform boys academically, women are less likely than men to choose pathways through education and fields of studies that lead to the highest-paid professions, such as science, mathematics or computing (OECD, 2017[246]; OECD, 2000[247]).

Early gender discrepancies in opportunities and skills may have long-term consequences for individuals that go beyond social and economic outcomes: they can predict a number of health outcomes and even affect life expectancy (OECD, 2012[245]; OECD, 2015[227]). In particular, the increase in educational attainment on average in OECD countries over the last half century has accounted for about 50% of economic growth in those countries during that period. Moreover, more than half of that growth can be attributed to higher educational attainment among women. Among OECD countries, as can be inferred from Figure 2.11, the labour force participation rate of women has steadily increased over the last thirty years, growing from about 48% to 52% (World Bank Database, 2020[248]). This growth has been parallel to that of educational attainment.

Figure 2.11. Labour force participation rate, female (% of female population ages 15+) (modelled ILO estimate) - OECD members



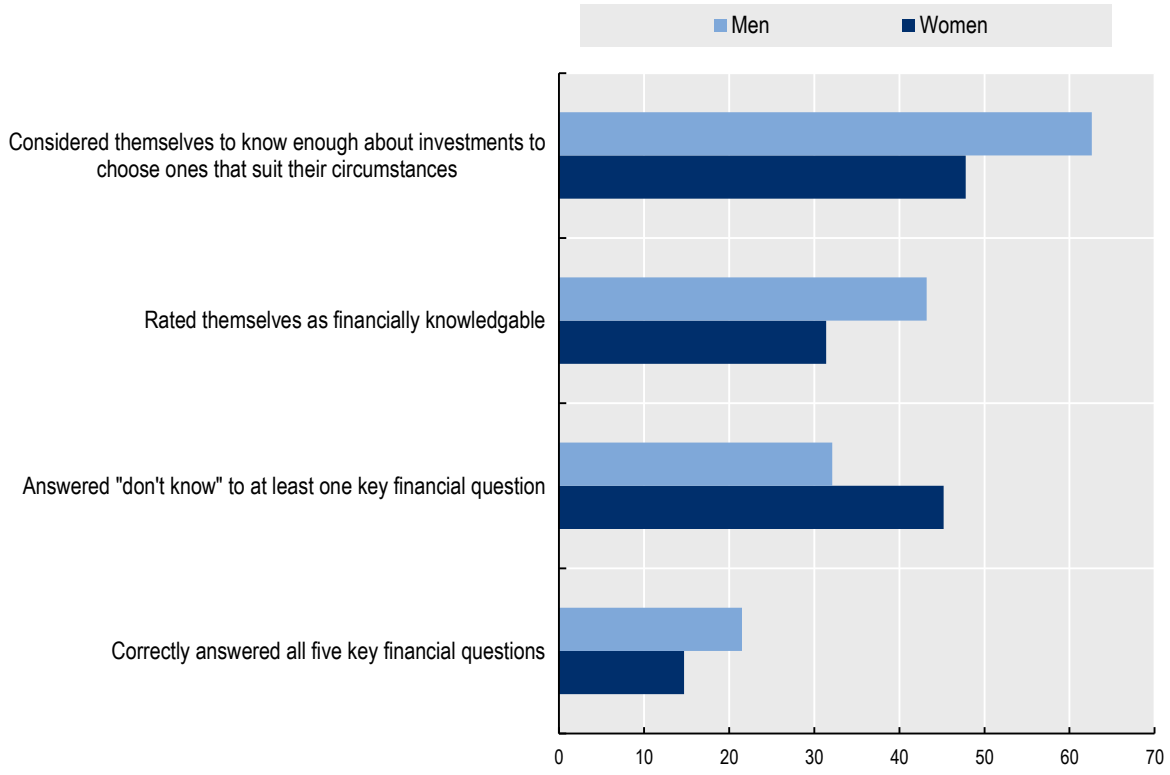
Source: World Bank Database (2020[248]), Labour force participation rate, https://data.worldbank.org/indicator/SL.TLF.CACT.FE.ZS?locations=OE (accessed 20 February 2021).

As education has driven the participation of women in the labour force since the 1960s, it has also increased their role in their own economic well-being and that of their families. Even so, women's participation in the labour force and employment earnings continue to be lower than men's, and women have retained a disproportionate share of housework, childcare and eldercare, contributing to their heightened vulnerability to financial insecurity (Fox and Moyser, 2018[249]).

Financial literacy

Another interesting fact reported is the important gender differences in the financial knowledge of Canadians. According to data from the Canadian Financial Capability Survey, women had lower scores on financial literacy than men (Figure 2.12). 14.7% of women correctly answered five key financial questions related to interest, inflation and risk diversification in 2014, compared with 21.5% of men. In addition, women are less confident in their financial skills than men. Women were less likely than men to consider themselves "financially knowledgeable" (31.4% versus 43.2%) and less likely to state that they "know enough about investments to choose the right ones that are suitable for their circumstances" (47.8% versus 62.6%). These findings suggest women's greater vulnerability to financial insecurity, which should be an important concern for the education system.

Figure 2.12. Financial knowledge and confidence of men and women aged 18+ in Canada, 2014



Source: Statistics Canada (2018[250]), Canadian Financial Capability Survey, 2014, custom tabulation, https://www150.statcan.gc.ca/n1/pub/89-503-x/2015001/article/54930/c-g/c-g10-eng.htm (accessed 20 February 2021).

Furthermore, education for girls and women reduces child mortality rates, improves individual health and thus promotes investment in the education and health of future generations (OECD, 2015[227]).

Discrimination

Still, gender-based discrimination remain. Discrimination in social institutions can hamper a country's income by lowering female access to education and jobs, and reducing production factor productivity (Ferrant and Kolev, 2016[71]). Indeed, constraints on women's access to – and quality of – education and

labour distort the economy by artificially reducing the talent pool from which employers can draw, thereby lowering average productivity (Ferrant, 2015[244]). Ferrant and Kolev (2016[71]) have estimated that, given a similar distribution of innate abilities between women and men, the current level of discrimination is estimated to induce a loss of up to **USD 12 trillion** (EUR 9.97 trillion) or **16%** of global income. For OECD countries in particular, this loss was estimated to be about USD 6116 billion (EUR 5082 billion) (Ibid).

Another societal issue related to gender inequality in education is boys' disengagement from education and the consequent high dropout rates, which have broad repercussions for gender equality throughout society. UNESCO reports that results from the International Men and Gender Equality Survey (IMAGES), conducted in 2009 and 2010 in Brazil, Chile, Croatia, India, Mexico and Rwanda, showed that less educated men were more likely to express discriminatory gender views (Barker, 2011[251]). Moreover, the OECD's Programme for the International Assessment of Adult Competencies (PIAAC) finds that poor proficiency in numeracy and literacy severely limits access to better paid and more rewarding occupations, and has a negative impact on health and social and political participation (OECD, 2013[252]). The underachievement of boys specifically has severe consequences not only for their own futures (OECD, 2015[227]; Erikson, 2005[253]), but for societies as a whole (OECD, 2010[68]).

2.5 LGBTQI+ students

Students from the LGBTQI+ community suffer from a lack of inclusion in schools worldwide. LGBTQI+ students often deal with harassment, threats and violence directed at them daily (Human Rights Campaign, 2013[254]). Across the EU, nearly 60% of LGBTQI+ respondents declared in 2019 that they have hidden their LGBTQI+ identity at school, and 4 in 10 report having always or often experienced negative comments or conduct in the school setting because of their sexual orientation or identity (European Union Agency for Fundamental Rights, 2020[255]). Non-inclusive or hostile school settings are detrimental to the mental and physical health of LGBTQI+ youth and negatively affect educational attainment, through lower participation in class or school activities, poorer academic performance and lower rates of attendance, or dropping out of school altogether (OECD, 2020[256]). This leads to lower learning outcomes and higher dropout or expulsion rates (Koehler et al., 2017[257]). Poor performance in school reduces opportunities for higher education and access to quality employment (Ibid).

2.5.1. Academic and social outcomes

Academic outcomes and exclusion from education

According to the World Bank, there is existing evidence that LGBTQI+ students suffer lower education outcomes due to discrimination, bullying and violence (World Bank, 2018[258]). Sansone (2019[259]) shows that in the United States, LGBTQI+ students have poorer educational outcomes than their peers. He finds that even if they do not perform worse than their peers in tests such as the Scholastic Assessment Test (SAT), they are less likely to graduate from high school, have lower GPA and accumulate fewer credits while in school (ibid.). Furthermore, they appear to have lower academic expectations: fewer LGBTQI+ students are sure about graduating from high school and are less likely to expect to complete a Bachelor's degree.

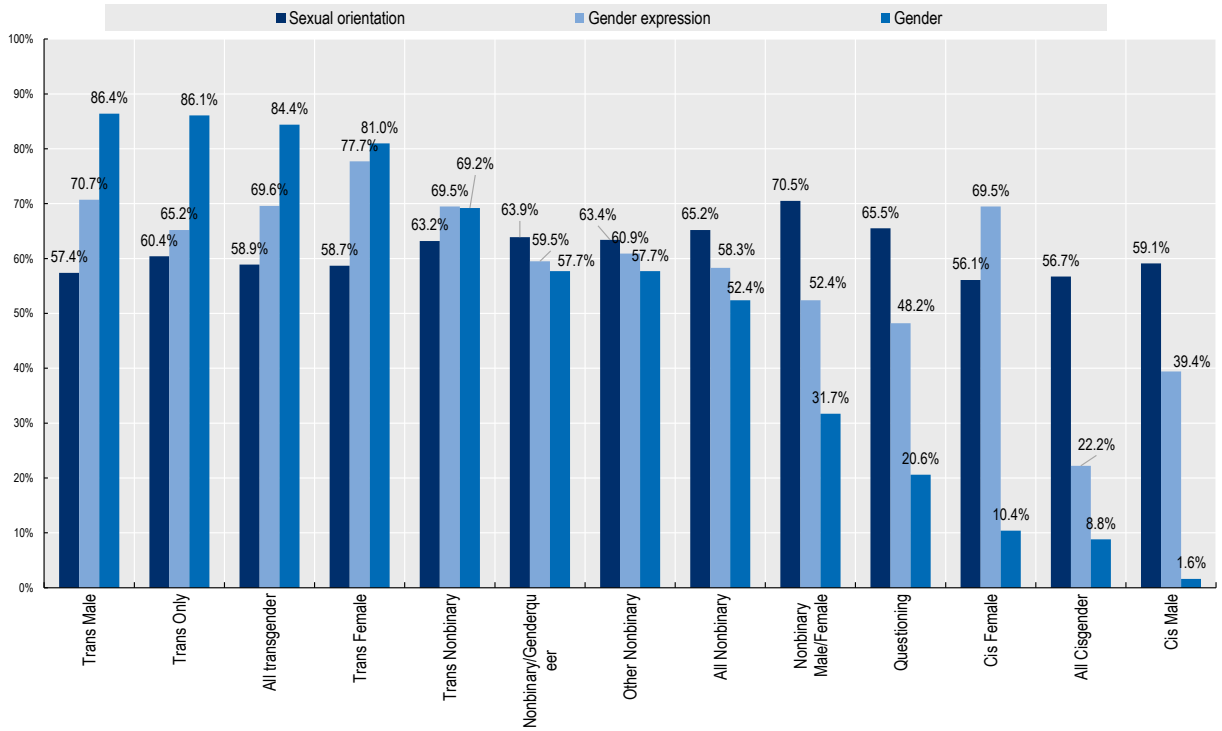
In some countries, LGBTQI+ students suffer from explicit exclusion in education. In Serbia, for instance, World Bank research found that feminine boys were three times more likely (14%) to be refused enrolment in public primary schools than non-feminine boys (4%) (Koehler et al., 2017[257]). Most feminine boys did not face direct refusal: of the refusals, 78.6% (11% of all boys) were granted after some delay or hesitation on the part of the school. None of the non-feminine boys were confronted with a refusal preceded by hesitation, as they were refused without hesitation and for strictly technical reasons (schools at full capacity).

Bullying, discrimination and safety

Bullying against these students has been identified as a common issue in numerous countries around the world (UNESCO, 2016[260]). Experiences of victimisation, such as bullying, can negatively affect LGBTQI+ youths' access to education, as they are linked to increased absenteeism, due to feeling uncomfortable or unsafe in school, increased discipline problems, and lower levels of school engagement and academic achievement (Kosciw et al., 2012[261]; Kosciw et al., 2010[262]). A recent study over various South American countries[20] reports that a quarter or more of LGBTQI+ students in the region (23% - 36.2%) recounted missing school at least once during the last month due to feeling unsafe (Kosciw and Zongrone, 2019[263]). In the United States, across all gender groups, students commonly reported feeling unsafe, frequently experiencing harassment or assault, and facing discrimination at school related to their gender, gender expression and sexual orientation. Among LGBTQI+ students, transgender students were more likely than all other students to have negative experiences at school and to have felt unsafe based on their gender expression, as shown in Figure 2.13 (Kosciw et al., 2020[264]). For instance, 84.4% of all transgender students reported feeling unsafe due to their gender, while 56.7% of cisgender students reported feeling unsafe in relation to their sexual orientation.

Figure 2.13. Perceived lack of safety at school by gender identity and sexual orientation

% of LGBTQI+ students who reported feeling unsafe based on sexual orientation, gender expression and gender (United States)



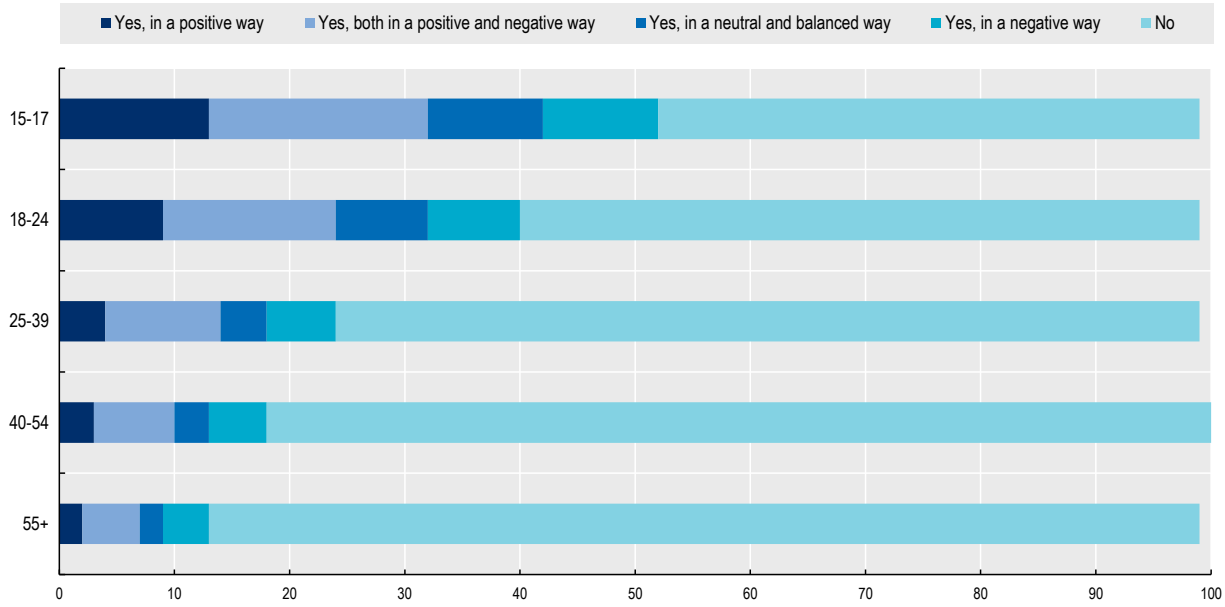
Source: Kosciw, J. G. et al. (2020[264]), The 2019 National School Climate Survey: The experiences of lesbian, gay, bisexual, transgender, and queer youth in our nation's schools, https://www.glsen.org/sites/default/files/2020-11/NSCS19-111820.pdf, (accessed 22 February 2021).

The high incidence of harassment and assault appears to be exacerbated by the rare intervention of school staff on behalf of LGBTQI+ students (Kosciw et al., 2010[262]). Kosciw and colleagues also report that

[20] Argentina, Brazil, Chile, Colombia, Mexico, Peru and Uruguay.

62.4% of students who were harassed or assaulted in school did not report the incident to school staff, believing little to no action would be taken or the situation could become worse if reported. Furthermore, 33.8% of the students who did report an incident said that school staff did nothing in response (ibid.). Similarly, even though the situation seems to have slightly improved in education since 2012, nearly 50% of 15-17 year old respondents to a 2020 FRA survey, reported that their schools did not take any measures to address LGBTQI+ issues in normal times (Figure 2.14) (European Union Agency for Fundamental Rights, 2020[265]).

Figure 2.14. Respondents who say their school education at some point addressed LGBTI issues, by age group (EU-28, %)

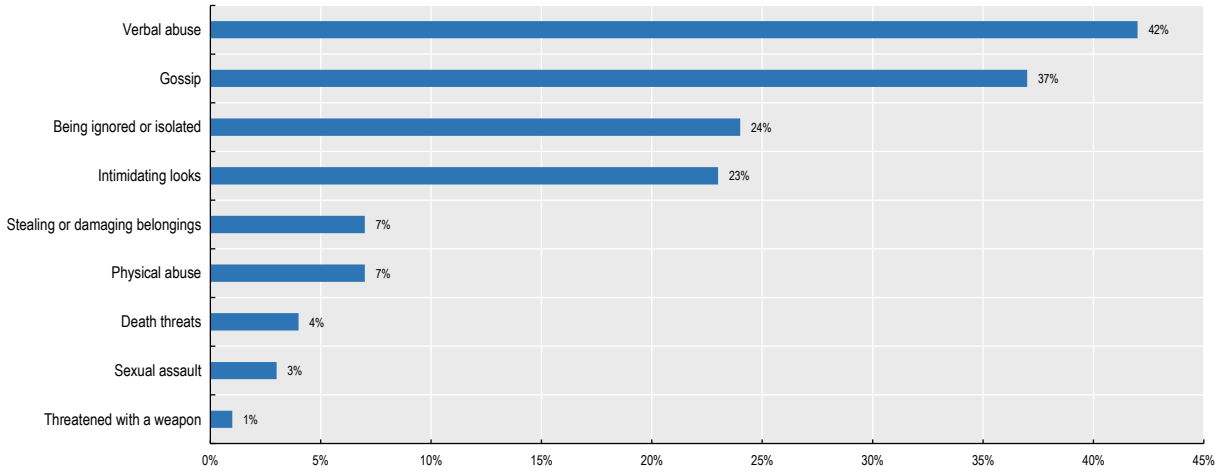


Note: The EU-28 aggregate includes the United Kingdom (UK) because the reference period of the data collection is from when the UK was a Member State. a Out of all respondents in EU-28 who provided a questionnaire that passed the quality criteria (n = 137,508); weighted results. b The presented percentages refer to respondents who answered the question C10_1: "Did your school education address at any point LGBTI issues? 1.Yes, in a positive way, 2. Yes, both in a positive and negative way, 3. Yes, in a neutral and balanced way, 4. Yes, in a negative way, 5. No"

Source: Adapted from European Union Agency for Fundamental Rights (2020[255]), A long way to go for LGBTI equality, https://fra.europa.eu/sites/default/files/fra_uploads/fra-2020-lgbti-equality-1_en.pdf (accessed 22 February 2021).

Evidence from the United Kingdom paints a similar picture to that of the United States. A report from Stonewall and Cambridge University states that 45% of LGBTQI+ students are bullied at school, 52% 'frequently' or 'often' hear homophobic language, and 46% 'frequently' or 'often' hear negative comments about trans people (i.e. transphobic language) (Stonewall and Cambridge University, 2017[266]). Trans students are at particular risk of bullying: 51% report being bullied at school for being trans, along with 53% of students who are questioning or unsure of their gender identity (but who do not presently necessarily identify as trans) (ibid.). Homophobic, biphobic and transphobic bullying in Britain's schools ranges from verbal abuse (reported by 42% of LGBTQI+ students) to death threats and assault (4%-3%) and takes place in and around school, including during lessons (Figure 2.15).

Figure 2.15. Bullying forms experienced by LGBTQI+ students (United Kingdom)



Source: Adapted from Stonewall and Cambridge University (2017[266]), School report: The experiences of lesbian, gay, bi and trans young people in Britain's schools in 2017, https://www.stonewall.org.uk/sites/default/files/the_school_report_2017.pdf (accessed on 7 February 2020).

In South America, too, LGBTQI+ students reported often feeling unsafe because of their orientation (between 47.4% and 80.6% of students) and gender expression (32.4% - 62.7%) (Kosciw and Zongrone, 2019[263]). Between one-fifth and two-fifths of LGBTQI+ students reported physical harassment based on their sexual orientation (22.1% - 43.0%) or gender identity (24.5% - 42.5%) (ibid.).

Bullying and discrimination do not only affect educational outcomes of LGBTQI+ students, but also their well-being, sense of belonging and mental health. While a growing number of LGBTQI+ students enjoy a positive learning environment at school, this is not the case for many. LGBTQI+ youth continue to experience unacceptably high rates of poor mental health, with young trans people at particular risk (Stonewall and Cambridge University, 2017[266]). In particular, 40% of students bullied for being LGBTQI+ have skipped school as a result, 52% feel that the bullying has had a negative effect on their plans for future education and 84% have self-harmed. Worryingly, 45% of trans students have attempted to take their own life. In the United States, 63% of gay, lesbian and bisexual youth report feeling persistently sad or hopeless within the last year, with 23% attempting suicide (AAUW, 2020[242]). LGBTQI+ students are also more likely to experience school discipline, which could demotivate students from attending school and even push them into the criminal justice system. These findings also demonstrate that a hostile school climate may negatively affect an LGBTQI+ student's sense of school belonging and psychological well-being. To ensure that LGBTQI+ students are afforded supportive learning environments and equal educational opportunities, community and school advocates must work to prevent and respond to in-school victimisation, and to eliminate school policies and practices that discriminate against LGBTQI+ youth. Reducing victimisation and discrimination in school may then lead to better mental health for LGBTQI+ youth, better enabling them to reach their fullest potential inside and outside of school.

Inclusive education practices have been recognised as helpful for students with LGBTQI+. Kosciw and colleagues (2012[261]) find that an inclusive curriculum had a significant and negative link to in-school victimisation, such that youth who had been taught positive representations of LGBTQI+ people, history and events reported less victimisation. Their results also suggest that the strongest positive influence for LGBTQI+ students is supportive adults at school, since the number of supportive educators is a strong predictor for a less hostile school climate and greater self-esteem for students. Furthermore, unsurprisingly, the number of supportive educators is associated with positive educational outcomes, such as higher GPAs and lower absenteeism. LGBTQI+ inclusive teaching ensures that LGBTQI+ children and young people see themselves reflected in what they learn. It also encourages all young people to grow up

with inclusive and accepting attitudes (Stonewall and Cambridge University, 2017[266]). In schools where students are taught about LGBTQI+ issues, LGBTQI+ students are less likely to experience homophobic, biphobic and transphobic bullying than in schools where pupils do not learn about LGBTQI+ issues (43% compared to 49%) (Stonewall and Cambridge University, 2017[266]). LGBTQI+ students in these schools are also more likely to report feeling safe, welcome and happy at school (ibid.). Moreover, students can provide them with the necessary support to foster their inclusion and well-being, such as counselling and psychological services. The French government has also recognised that an inclusive school climate requires fighting against all forms of discrimination, including against LGBTQI+ individuals. In France, indeed, schools are considered as the primary target for LGBTQI+ phobia awareness and prevention, and measures to combat homophobia and transphobia are included in school curricula, with the aim to combat this phobias, while also promoting inclusive education (Ministry for Gender Equality, Diversity and Equal Opportunities, 2020[267]). Some of the actions envisaged in the 2020-2023 action plan in this area include training educational staff, raising student awareness, and including LGBTQI+ students (for instance adapting documentations to enable recognition of the gender and preferred first names), among others.

2.5.2. Economic and societal outcomes

Labour market

Despite anti-discrimination laws in some countries, LGBTQI+ individuals encounter serious barriers to the job market (Drydakis, 2014[268]). Although on average, Australia, Canada, the United States and the European Union have the strongest protection of sexual-orientation rights, including workplace anti-discrimination laws, studies have highlighted that LGBTQI+ individuals face adverse workplace conditions (Itaborahy and Zhu, 2013[269]; Drydakis, 2014[268]; Sears and Mallory, 2011[270]). Indeed, there is evidence that sexual minorities experience discrimination from employers, consumers and co-workers (Aksoy et al., 2019[271]; Carpenter, 2007[272]). For instance, differences in earnings are a consistent problem for gay men, who receive lower earnings than heterosexual man of similar education, skills and experience. Studies find that gay men earn from 4–5% less than heterosexual men in the Netherlands, France, Greece and the United Kingdom to 12–16% less in Canada, Sweden and the United States (Drydakis, 2014[268]).

The World Bank reports that LGBTQI+ individuals generally suffer higher unemployment rates, a lack of access to adequate housing, health and financial services. In Serbia, for example, the World Bank reports that LGBTI+ people experience lower socio-economic outcomes due to discrimination, with the at risk of poverty rate increasing from 16% to 20% for those experiencing discrimination (World Bank, 2018[258]).

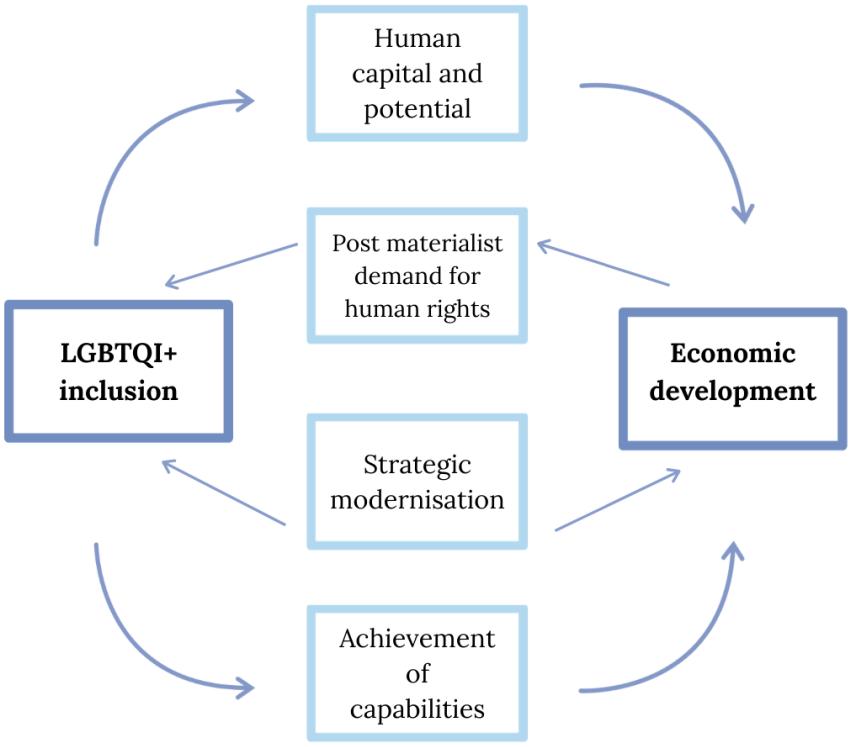
The lack of inclusion in education translates into higher social exclusion and reduction in the demand for labour of LGBTQI+ people, which reduces their wages and access to employment. Lower wages undermine incentives to work and the productivity of LGBTQI+ people, who invest less in education and life-long learning due to anticipated lower returns to investment (OECD, 2020[256]). Their lower production and wage levels reduce state revenue from income tax, corporation tax and social security contributions, while increasing public expenditure due to the higher demand for unemployment benefits and social transfers (Ibid).

Economic impact

The various forms of exclusionary treatment are not only harmful to the individuals involved, but also carry costs for the broader economy (Figure 2.16). Economic costs include lost labour time, lost productivity, underinvestment in human capital, and the inefficient allocation of human resources through discrimination in education and hiring practices. Decreased investment in human capital and suboptimal use of human resources have the potential to reduce overall economic output and growth in a direct way. Badgett and colleagues (2019[273]) find that, on average, a country has USD 2 065 (EUR 2 506) more in per capita GDP

for each additional index point of the GILRHO[21]. This finding does not mean that adding one law providing an additional right will necessarily add USD 2 065 (EUR 2 506) to a country's per capita GDP, but simply that a strong association exists between legal rights for LGBTQI+ individuals and national income. Moreover, the authors state, LGBTQI+ inclusion and economic development are mutually reinforcing.

Figure 2.16. Causal pathways linking LGBT inclusion and economic development



Source: Adapted from Badgett et al. (2019[273]), The relationship between LGBT inclusion and economic development: Macro-level evidence, in World Development, Vol. 120, https://doi.org/10.1016/j.worlddev.2019.03.011.

Psychological well-being

Furthermore, the stigma and stress suffered by different minorities (so-called "minority stress") have been shown to hamper mental health by generating anxiety, depression, suicide ideation, substance use and abuse (OECD, 2020[256]). Lower mental health not only has the potential to hinder their participation and success in economic activities, but is also grounds for other pathologies, such as cardiovascular diseases (Ibid). The health effects of exclusion further contribute to the loss of output from LGBTQI+ people.

[21] Global Index on Legal Recognition of Homosexual Orientation (GILRHO).

2.6 Gifted students

Data on gifted students is limited across OECD countries, due to large variations in definitions, identification strategies and programmes to serve this population. Indeed, although giftedness is a term commonly used in research, there is no widely accepted definition, and assumptions about and criteria for giftedness differ between theoretical models (Barbier, Donche and Verschueren, 2019[274]). Despite these differences, a common feature is generally the recognition that there are multiple domains of giftedness: not only cognitive, but also artistic, athletic, etc. (Ibid). Moreover, access to gifted programming therefore varies by ethnicity, socio-economic level, locale and region. Studies have shown that gifted students can be significantly marginalised because, when they are not always high achievers, certain idiosyncrasies, such as unpredictable behaviour, are difficult to measure, and traditional and extrinsic motivators do not always work for them (Yarrison, 2018[275]). A common issue when discussing "intellectually gifted students" specifically is that of academic underachievement (Rubenstein et al., 2012[276]; Snyder and Linnenbrink-Garcia, 2013[277]), although the literature disagrees on the concept of "underperforming gifted individuals" (Dowdall and Colangelo, 1982[278]).

2.6.1. Academic and social outcomes

In the absence of a commonly agreed definition of giftedness, it is up to countries and jurisdictions to elaborate their own definitions and parameters to identify gifted students within their systems. Therefore, definitions vary both between and within countries. This greatly affects the reliability of comparable estimates of the number of gifted students in different countries. Percentages range greatly, from Australia's top 10% of students being considered gifted, to 1-3% in China, 3% in Mexico, 0.27% in Spain and 0.07% in Hamburg, Germany (Center for Education Statistics and Evaluation, 2019[279]; Ibata-Arens, 2012[280]; Tourón and Freeman, 2017[281]; Sastre-Riba, Pérez-Sánchez and Villaverde, 2018[282]).

Access to gifted programmes

Moreover, access to gifted programming varies not only by country, but also by personal characteristics. For instance, ethnicity, socio-economic level, locale and region appear to influence participation in gifted programmes within schools for different groups of students. Indeed, data from the United States show great variations in the percentage of students in public schools enrolled in gifted and talented programmes. Table 2.3 shows that Asian students between 2013 and 2014 were enrolled at significantly greater percentages (13.3%) into such programmes, compared to groups, such as Black (4.3%), Hispanic (4.9%) or Pacific Islander (4.4%). Moreover, differences also depend on the individual States, as in 2013-14 Kentucky and Maryland (15.8% and 16%) reported percentages of students enrolled in gifted programmes that were ten times those of Vermont or Massachusetts (0.3% and 0.7%).

Table 2.3. Percentage of public school students enrolled in gifted and talented programmes, by sex, race/ethnicity and state: Selected years, 2004 through 2013-14

	2013-14									
Characteristics	Total	Sex		Race/ethnicity						
State		Male	Female	White	Black	Hispanic	Asian	Pacific Islander	American Indian/ Alaska Native	Two or more races
United States	**6.7**	**6.4**	**7.0**	**7.7**	**4.3**	**4.9**	**13.3**	**4.4**	**5.2**	**6.9**
Alabama	8.4	8.0	8.9	11.2	3.9	4.9	17.6	6.9	11.7	5.7
Alaska	4.9	4.7	5.2	6.8	3.0	4.3	6.3	2.3	0.9	6.5
Arizona	4.8	5.0	4.6	6.6	2.3	3.4	9.9	3.3	1.7	5.5

	2013-14									
Characteristics	Total	Sex		Race/ethnicity						
Arkansas	9.8	8.9	10.9	11.1	8.5	5.5	16.2	2.2	6.2	6.3
California	7.8	7.6	8.1	9.7	4.5	5.8	15.1	8.1	5.3	9.0
Colorado	7.7	7.9	7.5	9.6	4.1	4.4	12.8	6.4	4.3	9.0
Connecticut	2.2	2.0	2.4	2.7	1.1	1.0	4.6	0.5	1.1	2.4
Delaware	2.3	2.1	2.5	2.9	1.4	1.2	6.1	0.7-2.0	1.8	2.4
District of Columbia	#	#	#	0.1	#	#	0.1-0.3	0.0	0.0	0.0
Florida	5.8	5.6	5.9	7.6	2.3	5.3	13.3	4.1	4.3	6.2
Georgia	12.9	12.1	13.8	16.1	10.4	6.5	26.5	9.0	10.5	12.5
Hawaii	3.0	2.4	3.5	4.4	2.1	1.6	4.2	1.7	4.2	2.5
Idaho	3.6	3.5	3.7	4.1	2.2	1.4	7.1	2.7	1.9	2.9
Illinois	6.8	6.5	7.1	5.7	7.7	6.7	15.4	10.9	6.4	7.1
Indiana	12.1	11.6	12.6	14.0	4.9	6.5	20.8	8.7	9.5	9.8
Iowa	9.4	9.2	9.7	10.5	3.2	4.2	13.9	4.4	4.1	7.9
Kansas	2.7	2.8	2.5	3.2	0.9	0.9	6.8	1.9	1.6	2.5
Kentucky	15.8	14.7	17.0	17.3	7.9	7.5	26.8	14.6	10.9	11.7
Louisiana	4.2	3.7	4.8	5.8	2.3	3.6	14.8	5.2	2.8	4.3
Maine	4.9	4.5	5.3	5.0	2.4	2.6	8.0	3.5	3.1	3.7
Maryland	16.0	14.7	17.4	17.5	11.1	14.0	39.4	10.1	10.2	17.2
Massachusetts	0.5	0.4	0.5	0.4	0.6	0.4	1.0	0.4	0.3	0.5
Michigan	1.3	1.2	1.4	1.5	0.7	0.6	3.0	1.6	1.0	0.7
Minnesota	7.2	7.1	7.4	7.2	6.0	4.7	14.9	4.6	2.5	5.8
Mississippi	6.7	6.3	7.1	10.2	3.5	5.7	14.7	10.7	3.3	4.8
Missouri	4.2	4.1	4.3	4.5	2.2	2.7	11.6	2.2	3.0	3.9
Montana	3.8	3.9	3.7	4.2	2.4	2.0	6.5	3.4	1.7	2.5
Nebraska	12.0	11.5	12.6	13.5	8.3	6.9	19.9	8.7	5.6	11.7
Nevada	3.3	3.3	3.3	5.4	0.9	1.7	5.5	2.0	1.8	4.6
New Hampshire	1.2	1.2	1.2	1.2	0.4	0.3	1.6	0.0	0.7	1.1
New Jersey	5.9	5.4	6.5	7.1	3.1	2.9	11.9	7.5	2.9	4.6
New Mexico	4.5	4.6	4.3	8.2	3.3	3.1	13.4	5.7	2.6	5.8
New York	1.7	1.6	1.9	2.2	0.9	0.6	3.6	1.9	1.1	2.1
North Carolina	10.0	9.8	10.3	14.4	4.0	4.5	18.7	7.9	5.9	9.8
North Dakota	2.3	2.3	2.2	2.2	1.7	0.7	6.2	3.1	3.1	0.1-0.2
Ohio	4.3	4.2	4.3	4.9	1.4	1.9	11.2	1.8	3.5	3.5
Oklahoma	13.7	13.1	14.3	16.5	7.6	7.7	26.5	8.5	13.3	11.1
Oregon	6.5	6.7	6.3	7.4	3.1	2.6	16.6	3.0	2.5	7.6
Pennsylvania	3.7	3.7	3.7	4.4	1.0	1.2	8.8	3.3	2.0	2.7
Rhode Island	0.3	0.3	0.3	0.2	0.5	0.6	0.6	0.0	0.1-0.2	0.1
South Carolina	13.4	12.0	14.9	18.7	6.5	7.2	25.6	14.1	8.2	11.7
South Dakota	2.0	2.0	1.9	2.3	0.8	0.7	4.5	3.0	0.4	1.3
Tennessee	1.6	1.6	1.6	2.0	0.6	0.7	4.0	1.8	1.3	1.5
Texas	7.6	7.4	7.9	10.6	4.0	6.0	18.3	6.6	5.8	8.2
Utah	4.7	4.4	5.0	4.9	3.7	3.4	10.7	5.6	2.2	3.4
Vermont	0.4	0.4	0.4	0.4	0.3	0.1-0.3	0.6	0.9-2.6	0.2-0.6	0.1-0.2
Virginia	12.1	11.6	12.6	14.6	6.0	7.5	22.6	11.3	8.4	13.4
Washington	3.3	3.2	3.4	3.7	1.3	1.9	6.7	1.3	1.2	3.1
West Virginia	2.1	2.1	2.1	2.1	1.3	1.1	10.2	5.4	1.9	1.7
Wisconsin	6.2	6.0	6.4	6.5	5.2	4.7	8.8	3.0	2.1	5.5
Wyoming	3.6	3.6	3.7	4.2	2.4	1.3	5.6	3.1	0.9	1.8

Note: Rounds to zero. Data are based on universe counts of schools and school districts; therefore, these figures do not have standard errors.
Source: U.S. Department of Education, Office for Civil Rights (2018[283]), Civil Rights Data Collection: 2004, 2006, 2011-12, and 2013-14, https://nces.ed.gov/programs/digest/d18/tables/dt18_204.90.asp (accessed 27 February 2021).

Academic achievement

Research on giftedness in education began to emerge in the last few decades. With growing research on giftedness, the problem of underperforming gifted students in education was also raised (Dowdall and Colangelo, 1982[278]). Gifted students often appear to be marginalised in schools, underperforming and sometimes even failing in school or dropping out, possibly due to a lack of motivation (Çakır, 2014[284]) (White, Graham and Blaas, 2018[285]), of engagement in extracurricular activities or disengagement from education due to poor intellectual stimulation (Koenderink and Hovinga, 2018[286]). Although the literature on gifted underachievers indicates that the pattern of underachievement begins in the elementary or primary school years, it is well-established by upper secondary school (Vialle, Heaven and Ciarrochi, 2007[287]). Recent research also finds that gifted dropouts start to disengage cognitively during elementary school years, as their learning environment becomes less stimulating. This phenomenon stresses the importance of responding to these students' needs in order to spark their motivation and avoid dropouts, due to lack of stimulus (Koenderink and Hovinga, 2018[286]). However, more recent research on intellectually gifted students suggests that the aforementioned results are not as accurate as widely suggested in the literature. Guez and colleagues (2018[288]) discuss that the belief that gifted students experience difficulties at school and are particularly at risk of school failure comes from studies that are rarely based on representative samples. In their recent paper, instead, they analyse a large sample from the general French population, through a database of French middle school students ($N = 30{,}489$), including scores in a fluid intelligence test in Grade 6 and a variety of school performance measures in Grade 9 (results at a national exam, teachers' grades, academic orientation in high school). Their results replicate and extend previous findings: high-IQ students scored much better on all academic performance measures, which was corroborated by higher levels of motivation and self-efficacy. They also found a robust positive relationship between fluid intelligence in Grade 6 and academic performance in Grade 9 in the whole sample, which was also observed within high-IQ students (Guez et al., 2018[288]). However, the authors note that their findings do not imply that all gifted students are successful: some are not, and those ones deserve close attention, as do all pupils who do not succeed well in school. Moreover, it should be noted that the definition of gifted students for this paper relies exclusively on a specific IQ test, thus talented students in specific domains may be not considered by this analysis.

Socio-emotional outcomes

There is ambiguity over the specific social and emotional well-being of gifted students in academic literature. While gifted children display characteristics that can make them more resilient, their particular needs also render them more vulnerable to socio-emotional issues (Van der Meulen et al., 2014[289]). Researchers have emphasised that emotionally and socially gifted children can have different needs in comparison with their peers. Some data suggest that gifted children are more socially isolated, less sensitive to the thoughts of their peers and less adapted to their environment and society (Yun et al., 2011[290]). Robinson (2003[291]) suggests that gifted students may be overlooked in unchallenging educational settings, which can cause negative consequences, such as putting such students at risk of impaired social and emotional development, and preventing them from realising their full potential. Gifted students appear more likely to face personal conflict during their early development, due to different abilities, interests, environments, social expectations (Greene, 2005[292]) and attitudes (Mendaglio, 2013[293]). Psychological problems, such as high test anxiety and general anxiety level (Beer, 1991[294]), somatisation (Vanmeerbeek et al., 2006[295]) and lack of self-confidence accompanied by depressive symptoms (Bénony et al., 2007[296]) also seem common among these students. Recent findings reiterate that gifted children are at risk in respect of mental health, and support the idea that gifted students should receive appropriate education, support and counselling (Eren et al., 2017[297]). However, Gues and colleagues (2018[288]) have noted that a number of the studies supporting the thesis on socio-emotional issues for gifted students relied on case studies or biased samples, or clinically referred children. More

research on representative samples is required to substantiate eventual claims of the social and emotional outcomes of gifted children.

2.6.2. Economic and societal outcomes

These aforementioned outcomes are not only a challenge for students, who lack the support and resources to exploit their full potential, but also for societies. Clinkenbeard (2007[298]) asserts that, while there exists little economic data on the impact of gifted education on societies, there are compelling policy arguments for the economic importance of gifted programmes and services.

Simonton (2009[299]) reports that, even in countries that value equality, it is possible to justify gifted and talented education programmes. This stems from the assumption that a significant proportion of gifted and talented children will grow up to become high-achieving adults, and so these students will more than repay the resources that their countries invested in their education. Moreover, he sustains that exceptional achievers are disproportionately responsible for all of the world's accomplishments, which makes them a precious human resource. Research suggests that high-performing students contribute disproportionately to countries' economic growth (Sahlgren, 2018[300]) and even tough high performers are not gifted by definition; they are identified as such. Gifted students are often regarded as innovators and creators of knowledge who, in the appropriate environment and with development, will develop solutions to challenges of the future (Watters and Diezmann, 2003[301]). Shavinina (2009[302]) also argues that even the achievements of gifted individuals that do not seem directly associated with the economy are indeed related to it. For instance, scientific discoveries that save lives enhance the well-being of any society, even if they do not result in immediate or great financial outcomes.

Gifted underachievement is sometimes defined in literature as a frustrating loss of potential for society (Ritchotte, Matthews and Flowers, 2014[303]). Thus, there exists a societal reward for including these students in education and breaking down barriers for their achievement. Moreover, a more inclusive gifted education could "offer the possibility of cultivating a society's most promising talents into a source of exceptional human capital and creative capacity" (Heuser, Wang and Shahid, 2017[304]).

A report from the Employment, Workplace Relations, Small Business and Education References Committee of Australia from 2001, claims that support for gifted children in education contains a component of social equality (Senate Employment Workplace Relations, Small Business and Education References Committee, 2001[305]). Although gifted children are found in all socio-economic and ethnic groups, children from wealthier families benefit from more out-of-school support, while children from poorer families depend more on the school's provision. Untrained teachers are more likely to identify children of the dominant culture as gifted and well-behaved and less likely to notice giftedness among underachievers or minority groups. This suggests that more school support for the education of gifted students could contribute to balancing social inequity. For instance, in the State of Illinois (United States), the U-46 programme screens all students in third Grade for the grades 4-6 gifted classes, to ensure that all students are considered for such programmes (U46, 2020[306]).

3. The way forward: Challenges for policymakers to consider

Inclusion in education is a key condition for the achievement of sustainable, equitable and inclusive societies. It is an expression of societal justice, not of charity, whatever the source of diversity of the people and children involved (UNESCO, 2020[10]). Moreover, it provides a systematic framework for identifying and dismantling barriers for vulnerable populations, according to the principle "every learner matters and matters equally" (UNESCO, 2017, p. 12[26]). While inclusion in education started as a discourse on educating students with special education needs and catering to their needs so that they could achieve their potential in education and beyond, the quest for inclusive education continues much farther. All students require teaching methods and support mechanisms to help them to succeed and feel a sense of belonging at school and in society.

As discussed throughout this paper, inclusive education is not only a matter of human rights or justice, but also an opportunity for improving students' quality of life, of their future socio-economic outcomes and of societal outcomes more broadly. Although research is still limited in this field, due to few quantitative evaluations so far, existing studies suggest that inclusion can bring positive outcomes. By compensating the limitations of educational settings that nowadays impede vulnerable students' chances of success, countries can support their diverse populations in achieving better results in education, developing higher sense of belonging to their societies and increasing their well-being. This is likely to improve societal outcomes and reduce governmental costs, due to less need for social spending.

However, policy makers face specific challenges to further develop inclusion in education within their countries. The lack of relevant data, difficulties in estimating costs and benefits of potential reforms towards more inclusive education systems, intersectional issues, and the challenges created by the COVID-19 pandemic, must all be accounted for in policy development.

3.1 Quantitative analyses: A difficult but fundamental endeavour

Research on inclusive education has so far mostly been qualitative and focused on the theoretical underpinnings and motivations for a shift towards this education model. A more quantitative approach towards an analysis of inclusion, albeit challenging, would provide valuable input for countries and systems interested in moving towards more inclusive education settings. While there is growing support for the ethical argument of fostering inclusive practices, education systems and governments may need more specific information regarding their socio-economic sustainability and potential. Yet, as mentioned in Section 1.3, estimating potential gains resulting from improved inclusion in education and within society entails several challenges. These span from an estimation of individual and societal losses that systems currently sustain due to mainstream education's limitations, to the complexity of identifying the categories of students most affected by exclusionary practices, to the limited availability of data to perform such analyses.

Elaborating estimations on complex topics, such as the outcomes of more or less inclusive practices, is a difficult endeavour. A first, substantial challenge is the lack of available data on the categories of students currently most affected by non-inclusive – or sometimes exclusionary – practices. Across OECD countries, data is often not collected on ethnic groups, LGBTQI+ students are not identified – often for important privacy and ethical reasons – and students with SEN are identified and categorised in very different ways. Nonetheless, as discussed throughout Section 2, information and data show some of the effects that education systems' current organisation and practices have on diverse student groups. There is information on the prevalence of lower academic outcomes, impeded well-being and difficulties in labour and economic efforts later in life. Yet, more specific data could prove useful, especially on the impact of country reforms or efforts towards more inclusive practices.

Until now, there have been studies on very specific subgroups or sets of students or individuals and the costs that they – and their host states – experience due to the barriers that they face. Thus, some measures of the individual and societal costs of current educational practices with respect to diverse students exist. Researchers and policy makers are yet to develop estimates of the full benefits of more inclusive education systems. Although challenging in nature, due to the aforementioned limitations, exploring more comprehensive, systematic and structured monitoring strategies for evaluating students' outcomes would be beneficial. Firstly, a structured monitoring system would be a good starting point for further evaluations of reforms or policy changes and their impacts. Secondly, estimating costs and benefits with the support of stronger evidence and systematic data collection could feed fundamental information to countries' political leadership, motivating policy efforts towards inclusive education.

3.2 Intersectionality: A challenging implementation

A further layer of complexity in the data collection and monitoring of diverse students in education systems is caused by the need to integrate the concept of intersectionality into research and policy efforts. As mentioned in Section 2, the *Strength through Diversity Project* understands intersectionality to mean that a person can embody multiple dimensions of diversity and, as such, be exposed to different types of discrimination and disadvantages that occur as a consequence of those combined identities (Lavizzari, 2015[307]; Cerna et al., 2021[14]). Indeed, most individuals that suffer from diversity-based discrimination generally also possess other personal characteristics that can marginalise them even further. Many students with special education needs, for example, could belong to an ethnic minority or a low-income household, or perhaps be second language learners (Bešić, 2020[308]). This intersection could create novel challenges that are different from those of students with SEN or of ethnic groups. It is therefore important to consider the intersectionality between different dimensions of diversity when considering the challenges and barriers created by current education systems and discussing a more inclusive approach to education (Kozleski, Artiles and Waitoller, 2014[309]).

Intersectionality remains a complex notion that entails substantial challenges in its operationalisation. Moving from theory to practice is still an unresolved question for policy makers who are often unfamiliar with the concept of intersectionality (OECD, 2020[310]). Among other crucial issues are implicit biases (e.g. at the individual and social level, in legal and policy frameworks), the difficulty of translation in languages other than English, the risk of misunderstanding and misusing the concept that can lead to the invisibility of certain marginalised groups, and the lack of disaggregated data to design, implement and monitor effective initiatives for inclusion (OECD, 2020[310]).

Despite the challenges, the goal of intersectionality policy analysis should be to identify and explore the ways in which policies address the inequalities experienced by various social groups, taking into account the interaction of their different identities to form unique meanings and complex experiences within and between groups in society (Palència, Malmusi and Borrell, 2014[311]). According to Hankivsky and Cormier (2011[312]), the development of an intersectionality policy analysis system is still under-theorised, and a

methodology for the integration of intersectionality in policy development, implementation and evaluation is at early stages of development. Although the relationship between public policy and research is not streamlined, as research cannot provide definitive answers on how to approach complex social policy questions, in an era of evidence-based decision making, policy makers do rely on knowledge generated from research (Nutley, 2003[313]; Hankivsky et al., 2007[314]). Thus, future research should attempt to theorise a more definite intersectionality methodology, so that policy makers may be persuaded to incorporate this approach in their work. The promise of intersectionality policy analysis constitutes a novel way of understanding inequity as both experienced and systematically structured in a multi-scalar way (Hankivsky and Cormier, 2011[312]).

3.3 COVID-19: A disruptive event

The COVID-19 pandemic has had an undeniable impact on education systems, students and their learning and well-being. Although educational inequalities are often worsened during crises, COVID-19 has created new challenges, as countries faced the dilemma of how to replace an education system built around physical schools. School closures, that at the peak of the crisis involved 191 countries and 91% of enrolled leaners around the world (UNESCO, 2020[315]), have so far had a very real impact on all students, but even more so on the most vulnerable ones (OECD, 2020[316]). Diverse students have been particularly deprived of physical learning opportunities, social and emotional support available in schools and extra services, such as school meals (Ibid.).

Learning losses experienced by students during the pandemic will subsequently reduce their earned income, recently estimated at 3%, while also implying lower rates of national economic growth (Hanushek and Woessmann, 2020[8]). According to Hanushek and Woessmann on the basis of historical data, a closure for one-third of a year could lower a country's GDP by an average of 1.5% over the remainder of the century. Hanushek and Woessmann (2020[8]) also note that, as vulnerable children have a harder time taking full advantage of remote learning, they could be more affected by the crisis than their peers. The crisis could therefore become an even larger burden in terms of equity of educational opportunities and outcomes and lead to further societal inequalities.

A further concern is the risk that education spending may decline in the coming years, subtracting resources from students who require additional support to counterbalance not only the learning losses experienced, but also the socio-psychological effects of the pandemic. Funding will also be needed to ensure that the pandemic's impact does not fall disproportionately on the poorest and most vulnerable students (World Bank Group, 2020[317]). In 2020, the World Bank has estimated that in some countries, particularly high-income ones, education spending in 2021 is forecast to decline in real terms along with overall government spending: they estimated a projected decrease of 2.6% in the real growth of education spending per capita (World Bank Group, 2020[317]). After the 2008 financial crisis, OECD countries showed that education budgets were initially protected, but in 2010 a third of countries cut their overall education budgets while just under a half of countries cut teacher salaries (OECD, 2013[318]). There is evidence that some countries are already reducing their education budgets to shift resources towards health and social protection. In Canada and the United States, education authorities have announced cuts to their education budgets, including layoffs, reductions in staff recruitment and reductions in agreed salary increases (World Bank Group, 2020[317]).

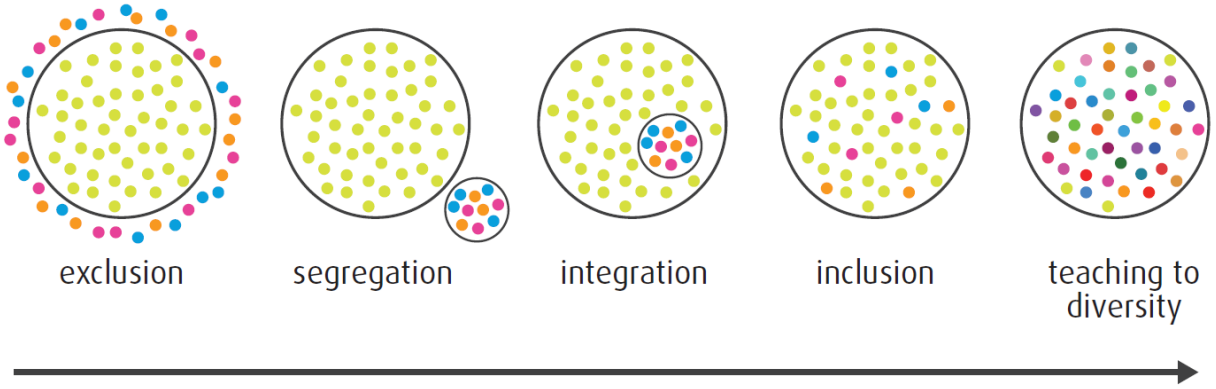
In all countries, the pandemic has placed a spotlight on the need to use resources as efficiently and equitably as possible (Ibid.). Equity and inclusion issues should be analysed with particular care in the aftermath of this crisis. As the gaps increase, due to the difficulties of the pandemic, countries may find it difficult to support their most vulnerable students in times of economic and social turmoil. Research should provide inputs on how efficiently to address issues of equity and inclusion, and present countries and policy makers with enough evidence to support targeted policies.

3.4 Pushing the agenda further: Beyond inclusion?

Inclusive education is not a new concept, having been discussed in relation to educational policy in UNESCO's 1994 Salamanca Declaration. The emphasis then was on the need to reform education systems and has since expanded to a new conceptualisation of students and their needs. However, the absence of practical integration of the concept suggests that greater efforts in this direction are still necessary to improve conditions for *all* students and particularly diverse ones.

There are parties already discussing an update of the concept of inclusion in education. For instance, in reference to Figure 1.1, Shelley Moore – a teacher, researcher, consultant and storyteller who has worked on inclusive education with school districts and community organisations throughout both Canada and the United States – discussed the importance of understanding diversity and inclusion along a continuum at the Inclusive Education Summit of British Columbia in 2017 (Inclusion BC, 2017[319]).

Figure 3.1. Understanding diversity and inclusion along a continuum



Source: Taken from Inclusion BC (2017[319]), Implementing Inclusion in BC's Public Schools: Report on the June 14, 2017 Inclusive Education Summit, https://inclusionbc.org/wp-content/uploads/2018/11/Implementing_Inclusion_Education.pdf (accessed 10 December 2020).

As portrayed in Figure 3.1, she proposed the importance of understanding diversity and inclusion along a continuum. "No student is green", meaning that inclusive education is not simply a matter of catering to students that are diverse from others. Instead, the idea is that all students have their characteristics, strengths and needs. A true continuum that leads to inclusion may ultimately lead to a model of teaching to diversity that recognises and values each student's unique identity.

This suggests space for further advancement not only of the educational agenda, but also of the theoretical debates around inclusion issues. Researchers, together with policy makers, should aim to continue the discussion around inclusion issues, as in how to implement significant policy changes, evaluate the impact of policies and practices on student and societal outcomes, and to keep pushing the agenda further to promote inclusion and equity in education.

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Annex A. Definitions

National minority is a complex term, for which no international definition has been agreed. Therefore, it is up to countries to define the groups that constitute and do not constitute minorities within their boundaries. These minority groups can be categorised by immigrant status and nationality of origins, but also by their ethnic affiliation and Indigenous background. While individuals can perceive themselves or be perceived as forming an ethnic group, they are not necessarily officially considered a national minority in the country in which they live. For example, while widely perceived as an ethnic group, Roma communities are not always considered a national minority. Moreover, national minority is an administrative category, and should be thought about as such. While useful in data collection and policy making, it often does not reflect the complex diversity between and within different ethnic groups.

The word **ethnicity** derives from the Greek word ethnos, meaning a nation. Ethnicity refers to a group or groups to which people belong and/or are perceived to belong, as a result of historical dynamics as well as certain shared characteristics. With variations between different contexts, these characteristics can correspond to geographical location and ancestral origins, cultural traditions, religious beliefs, social norms, shared heritage and language. Because ethnicity has its basis in multiple social characteristics, it is not deterministically defined and someone can be a member of an ethnic group even if he or she differs from other group members on some dimensions. Ethnic affiliation ultimately might depend upon the agency of an individual who chooses to be part of a specific ethnic group and, as such, places his or her identity in the context of a broader social group. This affiliation can be non-exclusionary and change over a lifetime, as individuals choose to adopt or reject such affiliation. Finally, ethnicity is a fundamental criterion of differentiation that can be a source of recognition and valorisation, and of inequalities and discrimination.

The concept of **race** is close to the notion of ethnicity and the boundaries between them are often blurred. However, race as a concept has been deconstructed since the second half of the 20th century, mostly through a worldwide UNESCO campaign in the 1950s, upheld by renowned anthropologists. It was shown that the concept of race, besides bearing a strong negative value in numerous countries, has little biological basis. Biological differences across individuals from different racial groups are minuscule and racial differences between individuals should have no bearing on education policy, were it not for their overlap with ethnic differences and structural discrimination faced by members of certain "visible"[22] minority groups, both in education settings and wider society. It is important to acknowledge that some countries commonly use the notion of race in political and academic language. However, its social origins rather than its biological basis are usually emphasised. Within the project, diversity related to the aforementioned characteristics will be referred to as *ethnicity* and *ethnic diversity*, and the terms *race* and *racial diversity* will not be used.

Indigenous peoples, according to the United Nations' working definition, are those who inhabited a country prior to colonisation, who self-identify as such due to descent from these peoples, and belong to social, cultural or political institutions that govern them (United Nations, 2019[320]). Experience of the colonisation process in some countries has had a double impact on Indigenous peoples and especially on children. On the one hand, it has undermined Indigenous young people's access to their identity, language and culture. On the other, Indigenous children have not generally had access to the same quality of

[22] "Visible minority" is an administrative category used in Canada that refers to "persons, other than Aboriginal peoples, who are non-Caucasian in race or non-white in colour" as defined in the Employment Equity Act.

education that other children in their country have enjoyed. These two factors have undermined the opportunities and outcomes of various generations of Indigenous peoples and children, and still affect these populations nowadays. Education systems may need interventions in their general design to recognise and respond to the needs and contexts of Indigenous students (OECD, 2017[191]).