

What works for underrepresented groups? Identifying effective measures for enhancing access to higher education in Europe

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Abstract:

Over the last three decades, policymakers from the EHEA have developed numerous measures, policies, projects and programs with the intention to increase the enrollment and participation of underrepresented groups, however, little is known about the ways in which such initiatives (with distinct and/or uncoordinated purposes) shape opportunities for potential students. Knowing which of these initiatives work and whether they are achieving the intended goals is of outmost importance for policy-makers across Europe. This paper aims to collect, document, scrutinise and critically analyse the current research literature which assesses the effectiveness of different programs, projects, policies and measures for widening access for underrepresented groups, and at the same time to identify gaps and make recommendations for potential further research. The 22 identified studies can be categorized into four main access measures: (1) outreach, counseling and mentoring of prospective students; (2) reserved places and quotas; (3) financial aid measures and (4) preparatory courses and programs. The findings showed that there is little research and information about the actual outcomes of most measures to increase access to HE. We found a lack of adequate, reliable and consistently collected data about the policy instruments already put to practice. Since there is no excuse for the lack of effective action towards more equitable systems, more evidence-based approaches will be necessary to effectively learn from these specific access measures and move forward towards more efficient equity measures.

Keywords: *higher education policy, access, social dimension, EHEA, Bologna Process, universities, higher education institutions, underrepresented groups*

1. Equity considerations within the Bologna Process

Despite the general increasing access to higher education (HE), higher education systems remain highly stratified (Marginson 2016), gender imbalances still exist between different fields of study, and students with an immigrant background or with parents without a higher education degree have lower chances to achieve tertiary attainment, etc. (Bologna Implementation Report 2018). On the one hand, there is a social demand for access to a variety of degrees (i.e., high-status professional degrees, or within elite universities), on the other, there is a normative inquiry for access to quality education for a diversity of students. Widening access and participation can be regarded as a strategy for change since the social benefits of inclusion in HE can have long term effects both for the individual and the society he/she lives in, among which there are tolerance and expanded social networks, contribution to the economy, cohesiveness in society, political participation, health and wellbeing, lower crime propensity, higher earning potential, better parenting and others (Murray 2009).

1.1. Access to higher education as part of general equity discourses

In higher education policy the concept of equity - originated in welfare economics - started to be used at different moments in time in different places around the world, usually along with the shift from elitist universities and higher education towards massification. There is no one single definition of equity in HE policy, but several that are more prominent in the literature and among practitioners, which shows the flexibility of the concept and the divergent understanding of it by policy-makers. It is

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understood as equality, that is providing equal opportunities for access to and success in HE in order to even out the circumstances that are beyond one's control (e.g. financial resources of the family or educational attainment of the parents) (Salmi and Bassett 2014). Equity is sometimes considered to be synonymous with access to HE, which is considered a tool for "widening participation and improving the chances of success of under-privileged youths" (Salmi and Bassett 2014), thus standing for all efforts governments, HEIs and others put into increasing the participation in HE, especially for underrepresented groups. The concept is linked to evening out (previous or existing) inequalities through the special allocation of resources that could be translated into HE policies but also through policy instruments that equalise economic, cultural and social capital within the education system (Geven 2012). Ensuring equity in education through policies is justified most of the times by the idea that education is acting as a catalyst for social change (ESU 2006).

Equity is also understood as a means to ensure and widen access to education through utilizing tools for ensuring diversity (i.e., affirmative action). Access is one of the key concepts in the literature on social inclusion in HE, together with concepts such as participation and success. In its narrow sense access to higher education can be defined as entry/admission to HE (Prodan et al. 2015), while more generally it can be defined as the ability of people from all backgrounds to access higher education on a reasonably equal basis (Usher and Medow, 2010; Wang, 2011). This definition is comprehensive in scope and implies that students of all backgrounds must not only be "reasonably" able to take advantage of educational opportunities, but must be adequately prepared and equipped to do so as well in order for the system to be considered "accessible". In both cases, it is merely the starting point whereas the final goal of access policies is successful participation (Tonks and Farr 2003).

Interventions aimed at HE equity address one or a combination of access (i.e., opportunities to enroll in a HE programme at a specific HEI), retention and persistence (i.e., opportunities to advance in the system up to successfully completing with good results, higher education), and successful transition to further studies or professional career (i.e., opportunities to get employed after graduation or to continue towards superior levels of education). Holistic equity promoting approaches address all potential sources of inequity such as socio-economic, ethnic, gender- and disability-based, both at individual and system level. These approaches can propose solutions for the difficulties encountered by students lower levels of education (primary or secondary), at the transition between secondary and higher education, or while attempting to enroll, participate in and successfully graduate from HE programmes. These types of holistic approaches to inequities are needed as barriers tend to overlap in the cases of potential students coming from difficult socio-economic backgrounds that are traditionally under-represented in the educational system or are excluded from it. Nevertheless, it is important to underline that most reforms focused on improving equity in education seek to identify disparities in educational performances and results, and to introduce policies, programmes and actions to address or compensate for these inequities. However, there is no one-size-fits-all type of solution (no mix of policies will work everywhere) and initiatives in the field should address the goal of eliminating both individual and system barriers (e.g. admission selection should be freed of any privilege bias) (Usher 2015).

1.2. The social dimension of the Bologna Process

The Bologna Process (and the subsequent EHEA) represents the most significant and ambitious higher education agenda in Europe with an equity dimension. The Sorbonne Declaration referred to the fact that "students should be able to enter the academic world at any time in their professional life and from diverse backgrounds" (1998, 2), and this was the beginning of the sequence of moments linked to the Bologna Process when countries reiterated their support for integrating a diverse student body within their programs and structures. Therefore, in 2001, through the Prague Communiqué member states were encouraged to create lifelong learning policies, to facilitate the partnership of higher education institutions and students in promoting the attractiveness of the EHEA, and policies aiming at the social dimension of higher education, including the access of underrepresented groups. The 2003 Berlin Communiqué acknowledged that "the need to increase

competitiveness must be balanced with the objective of improving the social characteristics of the European Higher Education Area, aiming at strengthening social cohesion and reducing social and gender inequalities both at national and at European level". This trend continued in the ministerial conferences after 2003 it became clear that the social dimension includes measures taken by governments "to help students, especially from socially disadvantaged groups, in financial and economic aspects and to provide them with guidance and counselling services with a view to widening access" (Bergen Communiqué 2005), so that in 2007 participating countries were asked to report on the actions taken at the national level and on the effectiveness of national action plans and measures targeting the social dimension of higher education (i.e., access participation and completion measures for underrepresented students). More specifically, some of the means refer to adequate student support and services, counselling and guidance, flexible learning paths and alternative access routes, including recognition of prior learning (Bucharest Communiqué 2012), but also implementing the EHEA social dimension strategy (Yerevan Communiqué 2015).

1.3. Literature gap and methodology

A significant number of countries and higher education institutions have started investing resources and take on board initiatives aiming at widening access for such groups (i.e., through quota systems, preparatory programs, etc.), however, little is known about the ways in which such initiatives (with distinct and/or uncoordinated purposes) shape opportunities for potential students. Knowing which of these initiatives work and whether they are achieving the intended goals is of outmost importance for policy-makers. Provided the level of autonomy in general and the flexibility higher education institutions have in selecting students and organizing admissions processes, this paper addresses the relative effectiveness of initiatives at the higher education institutions level.

While in the US there is a considerable amount of research about the effectiveness of access policies (Pharris-Ciurej, Herting and Hirschman 2012; Perna et al. 2008; Myers et al. 2010), in Europe we found very few such studies focusing on the university level, fact which motivated us to take up the challenge of mapping them out. The existing literature including or focusing on Europe are systematic reviews of evidence on the effectiveness of interventions for widening access, participation and completion rates of underrepresented or disadvantaged students in higher education. For example, Torgerson et al., (2014) and Younger et al., (2019) provide a synthesis of the international evidence mainly from the US and the UK, on the effectiveness of university access strategies and approaches for disadvantaged students. Similarly, Herbaut and Geven (2019) selected 71 studies, most of them across the US and few from Europe, and compared more than 200 causal effects of outreach and financial aid interventions on access and completion.

As Perna et al. (2008) claim, efforts to understand why policies and programs are not working are hampered by the absence of a framework for organizing the myriad efforts designed to reduce participation gaps and, by extension, for demonstrating policy blind spots and redundancies. This paper aims to contribute in addressing the current literature gap by focusing only on access measures and interventions. It aims to collect, document, scrutinise and critically analyse the current research literature (i.e., through the work of others, evaluation reports, etc.) which assesses the effectiveness of different programs, projects, policies and measures for widening access for underrepresented groups within the EHEA at the higher education institutions level, and at the same time to identify gaps and make recommendations for potential further research. In line with the existing research from the US, this paper aims to map out existing evaluation studies assessing the effectiveness and impact of different access policies, projects, programs and measures across EHEA's higher education institutions. The main research question this paper explores is: what is the relative effectiveness of different access measures implemented at the university level, and which characteristics moderate their effectiveness?

Before proceeding to the actual research, it is worth mentioning what is referred to here as *access*, who are the *underrepresented groups* and how *effectiveness* and *impact* can be measured. *Access* is defined here in a narrow sense as entry/admission to and enrolment of students in HE education programmes (Prodan et al. 2015). As far as the *underrepresented groups* are concerned,

the literature refers to a broad category of students, including those with diverse, ethnic, cultural and migration background, sexual identity and orientation, socio-economic background, educational background (alternative pathways, lifelong learners, first generation students), caring responsibilities, religious background/beliefs, age or students from rural areas (c.f. Claeys-Kulik, Jørgensen, and Stöber 2019). When it comes to the *effectiveness* of various approaches to increase access to higher education the most obvious reference is the extent to which (i.e.) a program has reached the goal(s) that has been set initially, or whether it achieves the set expectations or the goal(s) that were intended or desired by stakeholders, or as Cowan (1985) puts it, effectiveness is the ratio of the actual outcome to the possible or the ideal outcome. The three most often used indicators for measuring the impact of HEIs activities on diversity, equity and inclusion refer to the number/share of student enrolled from less represented/disadvantaged backgrounds, the success stories of the people targeted through the measures, and the graduation rate of students from underrepresented/disadvantaged backgrounds (Claeys-Kulik, Jørgensen, and Stöber, 2019). For the purpose of this paper, we will be looking at the first set of indicators but keeping in mind the initial goals and intentions of the measure under consideration.

In order to reach the expected results, we first undergo a mapping exercise looking for all studies (research or evaluation studies) referring to the access policies/programs. The search for the studies of interest was conducted using the Google Scholar search engine using combinations of search words referring both to the interventions of interest (e.g. bridging programme) and to underrepresented groups of students (e.g. first-generation students). The approach for this entailed extensive searches of comprehensive education databases such as Web of Science and the Educational Resources Information Center (ERIC) - the world's largest educational database and the most-frequently used index for carrying out educational research. Publications' titles and abstracts in this database were searched for a combination of keywords related to "underrepresented groups" in/or/and "higher education", "tertiary education" or "universities" complemented by our knowledge on studies on the topic including non-academic studies from different organizations, structures and HEIs. In total, a number of 22 studies have been identified, out of which two of them non-academic.

Section 2 of this paper looks at the different social dimension targets set by the EHEA participating countries, and evaluates their admission systems and other policy instruments (financial and non-financial) promoting equity. Based on the identified studies section 3 describes the measures under consideration, provides several examples of such measures by specifying the university accommodating the measure, the type of measure and its components, its target group and the intended goals of that specific measure, and synthesizes the evidence collected on their effectiveness and impact based on existing studies evaluations/assessing the effectiveness of the different interventions aimed to foster access. The last section puts forward the main findings and proposes further avenue for research.

2. Access policies between national frameworks and institutional practices

In Europe, the social dimension is an increasingly important policy issue with both state and higher education institutions intervening to increase access and participation. Due to the political commitment countries express through their participation in the Bologna ministerial meetings it is assumed that national decision-makers will further pursue different strategic targets, measures and policies which are aligned with the commonly agreed Bologna policies. This section looks at the different targets set by the participating countries, and evaluates their admission systems and policy instruments promoting equity.

2.1. Setting national targets for enhancing access

Setting national targets for enhancing access to higher education represents a political statement from the side of national governments which can affect the practices HEIs embrace. The 2018 Bologna Implementation Report states that several countries have set long-term goals and targets with regards to the access of different groups. For example, by 2025 Austria aims to have at

least 10% of men/women in each study program and increase the proportion of second-generation immigrants among entrants to 30%. By 2030, Scotland aims to increase the access for students coming from the most deprived backgrounds so that it represents 20% of the entrants. By 2020, the Czech Republic set out to increase the access of students with specific educational needs in higher education so that their share will be close to share among high school graduates. Other studies have shown the specific groups targeted through such measures (Salmi 2018). The more frequent target groups in Europe are students from low-income families and students with disabilities, followed by women, and students coming from different minority groups. The more recent categories of equity groups include: first generation students, refugees, children of civil servants and veterans, students with care experience (i.e., foster care or children's home), orphans, youth without parental care, single mothers or families with a certain number of children (i.e., beyond 3), students who do not speak the national language (i.e., in Denmark) etc. (Claeys-Kulik, Jørgensen, and Stöber 2019; Salmi 2018). Setting such targets is a crucial step, however considering the fact that the admission systems provide the transition to higher education, they are the key point for determining which students go into which type of higher education institution (Haj, Geanta and Orr 2018).

2.2. Admission systems and higher education access

The type of admission systems in a country can positively contribute or hamper equity and access. Orr et al. (2017) and Haj, Geanta and Orr (2018) reflected on the types of admission systems and their impact on the equity of access, progression and completion in higher education in Europe. By using 36 European countries, Orr et al. (2017) created a two dimensional typology of admission systems based on the extent to which school streaming leads to some forms of higher education and whether HEIs have the autonomy to use their own selection criteria. According to Haj, Geanta and Orr (2018), HEIs have been given more freedom “to decide which type of applicants they enroll and how many. HEIs contribute to student selection based on the level of existing autonomy, which sometimes allows them to apply additional criteria in order to select and enroll those deemed more academically fit for the study programmes provided”. The authors argue that the main drivers impacting HEIs' selection can be attributed to the HEIs institutional mission, the legal constraints they are subject to, the financial incentives awarded, and the innovative selection procedures or to the specific policies targeting different groups of students. Students however, are actors in the HE admissions process. HE admission is not something that just happens to students, they shape it with their choices albeit choices that are constrained by the behaviour of the other actors in the system.

The result of Orr et al. (2017) typology is a four type admission system as follows: a selection by schools system (Type 1) in which secondary schooling does not lead to HE entry and HEIs cannot select with additional criteria, a selection by HEIs (Type 2) in which HEIs can select with additional criteria and all previous schooling pathways may lead to HE entry, a least selection system in which neither the school system limits students nor the HEIs select them (Type 3), and the last type, a double selection in which both the school system and HEIs select students (Type 4). An assessment of the performance of each type (Orr et al. 2017) shows that higher education entry rates are higher where HEIs have increased autonomy. Moreover, countries that put up the fewest academic barriers to access to higher education are also the ones with the most equitable outcomes by social background (measured using highest educational attainment of graduates' parents), whereas countries in which HEIs can use their own admission criteria are more likely to admit a higher proportion of mature students. In countries with streams not leading to higher education and HEIs have the autonomy in organizing assessment, females have a higher increase in participation between upper-secondary and higher education.

When it comes about these types' performance with regards to equity Haj, Geanta and Orr (2018) argue that the systems with the selection done by the schools (Type 1) have poorest performance, and therefore the lowest relative participation rates by students from low socio-economic backgrounds. This is due, on the one hand, to the school streaming where pupils are placed in schools with different likelihoods of leading to higher education, on the other hand by HEIs using

students' secondary school examination scores. In systems in which the admission is done by HEIs (Type 2), equity is not restricted as in Type 1. However, when applying additional criteria, HEIs might focus on the academic achievement of the student, limiting the changes for students with lower socio-economic backgrounds, contributing therefore to perpetuating inequality. Provided the level of autonomy HEIs have, they can promote their own discretion positive actions for certain groups of students, or alternatively can control the student distribution per field of study (Haj, Geanta and Orr 2018). In Type 3 systems neither the schools nor the HEIs limit or select students. This type presents the best outcome in terms of equity since it has the fewest barriers to access. One of the issues is that compared to systems in which HEIs can select students, here the drop-out rate might be higher since HEIs might not be able to get students that fit with a study program (Haj, Geanta and Orr 2018). Last but not least, the double selection system (Type 4) is expected to be the least equitable considering both the school streaming and HEIs selection criteria, with numerous potential students are not being considered for higher education (Haj, Geanta and Orr 2018).

2.3. Financial and non-financial policy instruments

In terms of specific policy instruments promoting access to higher education these can be broadly categorized as financial and non-financial. As far as the first category is concerned, it might primarily target students with low socio-economic backgrounds. However, it is widely known that the principal dimensions of inequality overlap in many ways, for example ethnic minorities are more likely to live in rural areas or peripheral neighborhoods and therefore are more likely to be affected by poverty. In principle, financial instruments might target other equity groups as well. Salmi (2018) argues that nowadays financial aid policies are the most common used, often used in combination with non-monetary aid policies. Among these is worth mentioning the tuition free or partially subsidized higher education, needs based grants, scholarships and bursaries, student loans, and a variety of funding formula.

As far as the non-financial policy instruments are concerned, the most widespread practice is positive discrimination – i.e., most CEE countries have a quota or reserved places for Roma students, Ireland accept students with lower entrance points. Initiatives addressing non-financial barriers faced by students prior to their enrolment refer to the opening the educational system (e.g. reformed selection procedures and/or preferential admission programmes) and ensure that potential students have the adequate skills and aspirations to seek out to enroll in HE. Considering the type of admission system and school tracking, several countries have worked on expanding the number of pathways into higher education level, either through special application routes for students from low socio-economic background (i.e., Higher Education Access Route in Ireland) or disabled students (i.e., Disability Access Route also in Ireland). In the case of a potential drop-out national level programs require HEIs to engage with potential students at school level so that students can make better choices prior to the application process (i.e., in the Netherlands).

Based on existing studies and/or evaluations assessing the effectiveness of the different interventions aimed to foster access, the section below puts forward several access measures and synthesizes the evidence collected on their effectiveness and impact.

3. Access measures and their effects: What works for underrepresented groups?

The literature identifies several categories of measures universities can incorporate within their work aimed at enhancing HE access. For example, Usher (2015, p. 437) identifies three types of strategies aimed at widening access including: (a) early interventions strategies designed to eliminate barriers in the educational pipeline prior to tertiary education, (b) strategies to reserve places for under-served groups, and (c) strategies that are designed to ease financial barriers to higher education for students who have already been declared eligible for it. Claeys-Kulik, Jørgensen, and Stöber (2019) put forward 12 most frequently used access measures used by universities among which (from the most frequent to the least): guidance, counseling and mentoring, accessible building and activities, assurance about non-discrimination, part-time study options and flexible courses, financial support,

preparatory courses, recognition of prior learning, childcare on campus, positive action, housing support, quotas for students from certain groups/backgrounds, and general positive discrimination measures. While these measures can reflect the overall situation, depending on the target group envisioned the type of interventions might differ. For example, when reviewing the existing type of interventions for refugees in higher education, Streitwieser, Ohorodnik and Jeong (2019) developed a system to categorize HEIs' efforts based on types of educational assistance, which includes: (a) accredited on-site or blended learning programs, (b) international online learning platforms, (c) scholarships, (d) information-sharing platforms, (e) assessment of credentials and qualifications, and (f) efforts to address other barriers to access.

Based on the identified studies this section focuses on four types of access measures. The section (1) provides a general description of the type of measures under consideration, (2) offers several examples of such measures by specifying the university accommodating the measure, the type of measure and its components, its target group and the intended goals of that specific measure, and (3) synthesizes the evidence collected on their effectiveness and impact based on existing studies evaluations/assessing the effectiveness of the different interventions aimed to foster access. Each category of access measure provides selected examples across HEIs across EHEA. The measures were identified through the research consulted – i.e., Access4All Project; EUA Refugees Welcome Map; Claeys-Kulik and Jørgensen 2018; Claeys-Kulik, Jørgensen, and Stöber 2019 - and described through the help of universities' websites.

3.1. Outreach, counseling and mentoring of prospective students

Early interventions for eliminating barriers prior to HE include outreaching and bridging programmes or services provided directly to the students, such as: personal and professional counselling, mentoring and tutoring systems or general academic support. Counseling is applied in a wide range of areas such as education problems, psychological issues, career guidance, and disability guidance and it can be used as a tool for reducing dropout (Wulz, Gasteriger and Ruland 2018). Counseling can be provided by universities, private associations, NGOs, organizations depending on country regulations and can support to extend the demand to access higher education (Wulz, Gasteriger and Ruland 2018). The counseling of prospective student is a specific and important area of counseling because it can serve as a source of social capital for first-generation students (Pham and Keenan 2011) which would help them to overcome a lack of social capital and assistance and advice from their parents or their families. Career counselling and personal development programs can also contribute in improving retention rates and results (outcomes). While in some countries, universities have an obligation to provide counselling, in other countries many private associations or NGOs provide counselling to students, especially in countries with high demands to access higher education. In other cases, organizations aiming for support of specific student groups and/or disadvantaged or underrepresented groups provide specific counselling. Table 1 below exemplifies the different measures within this category taken on board by universities.

Table 1. Selected examples of outreach, counseling and mentoring of prospective students

HEI	Type of measure and components	Target group	Intended goal(s)
University of Barcelona, Spain	Full tuition scholarship, housing, free language course, mentoring, legal advice, psychological support and dental care	Refugees	Widen access and ensure participation
University College Dublin, Ireland	Outreach - Student Access Leader Programme	Students with disabilities, mature and part-time learners, and students from	Widen access and ensure participation

		socio-economic disadvantage	
University of Lille, France	Financial and pedagogical support to students from disadvantaged backgrounds during their first year of study	Supporting students from socio-economically disadvantaged backgrounds	Ease access to graduate and postgraduate studies
University of Strathclyde, UK	Introduce prospective students to the life on campus and deliver tailored learning activities	Prospective students	Increase students' awareness of various HE aspects (i.e., courses and entry requirements)

The evaluation results of identified studies focusing on this category show that there is a scarcity of data or rather reluctance to attribute higher education enrollment to such measures.

Positive effects are presented by Gumaelius et al. (2016), who argue that most *outreach initiatives* aimed at increasing interest in science and technology are evaluated based on whether participants liked the activities or not, or based on changes in the enrolment of a degree programme. For example, the Stockholm University summer school and the Praktikum UPV (at Universitat Politècnica de València) provide activities for prospective students closely related to universities' everyday activities, including the opportunity for school students to perform small research projects with PhD students. Praktikum UPV includes a one-week stays for secondary school students within university research groups for fostering engineering and scientific vocations. Both initiatives measured the number of participants who chose to enroll in a STEM programme at their university after the activities are completed. At Stockholm University, 12–14% of them chose to study a STEM field at Stockholm University, and 70% chose to do so at UPV (however, participants might choose to attend a STEM programme at another university, which is not reflected in the percentage but must be considered a success).

Kerr et al. (2014) examined the impact of an *information intervention* offered by student guidance counselors to randomly chosen high schools in Finland on the return to higher education including labor market prospects associated with post-secondary programs. The results show that on average, the information intervention did not affect the likelihood of being enrolled in a post-secondary program or the type of programs where the students were enrolled. Furthermore, the study shows that the application patterns among students graduating from the treatment and control school are indistinguishable from each other. The positive note however, is that a third of the students reported that the intervention led them to update their beliefs with regards to return to higher education.

In Germany, Ehlert et al. (2017) conducted a field experiment among high-school students from Berlin who had HE intentions to find out whether *information* deficits lower the likelihood of college-eligible students from less-privileged families to pursue their college intentions. The findings show an increase the application rates overall, including for students without academic background parents, with one-college-educated parent, though no significant effect when both parents have an academic degree.

A large-scale clustered randomised experiment (Abbiati et al. 2018) involving over 9,000 high school seniors from 62 Italian schools shows that overall, treated students (who were provided *personalized information* on the costs, benefits and chances of success in HE through three meetings) enrolled less often in less remunerative fields of study in favour of postsecondary vocational programmes (the latter was mainly due to the offspring of low-educated parents). The study shows that children of tertiary graduates increased their participation in more rewarding university fields.

Looking at existing practices and needs in terms of *guidance* for inclusion in European universities Cullen (2013) suggests that “institutions that adopt peer and mentoring support programmes have lower rates of dropout” (cited in Wulz et al. 2018). More specifically, counselling

activities are seen as a successful measure to prevent dropouts. Wulz et al. (2018) consider that counselling is an effective measure to widen participation in higher education, together with the provision of student facilities (e.g. housing, medical support, childcare). In a representative study in Germany, as reported by Wulz et al. (2018), 74 percent of the students who took advantage of student union counselling activities perceived it as useful.

Looking at the impact of Aimhigher (2004–2011) on widening participation in higher education for young people from under-represented groups (pupils aged 12 to 16 including first generation students) in England, Doyle and Griffin (2012) find positive effects on pre-entry *mentoring* (information advice and guidance) on students' aspiration-raising and access to higher education when combined with other measures such as campus visits or guest lectures. In sum, results of Aimhigher are mixed, with Doyle and Griffin (2012) finding positive effects for mentoring, but McCaig and Bowers-Brown (2007) finding no measurable impact but rather 'smoking gun' causal links between Aimhigher and enrolment.

To conclude, the seven identified studies touching upon the effectiveness of outreach, counseling and mentoring of prospective students show that these do not have a strong potential by themselves but work best when combined with other types of measures. Personal and professional pre-entry counselling, mentoring tutoring systems, and academic support reach maximum results when complemented by a "school culture that values and promotes going into tertiary education, that sets high expectations for participation in HE and offers a curriculum that attracts and supports students in their postsecondary and career development" (Salmi and Bassett 2012). Moreover, they are considered more efficient in systems that have a clear set pathway towards HE through secondary education (like Anglo-Saxon educational systems), and less in countries like Germany that select students for different streams of the system early in their educational carriers (Usher 2015).

3.2. Affirmative action measures: reserved places and quotas

Affirmative action (also known as 'positive discrimination') is a tool for inclusive policies designed to reduce the negative effects of past and present discrimination over disadvantaged groups (Garaz 2014), or to improve the status of historically marginalized groups in the fields of politics, trade market, education or societal life in general. The main reason for adopting affirmative action measures is to provide equal access and chances for those minority groups that are marginalized or discriminated against. The main objectives of affirmative action are equity, equal opportunities and diversity, objectives which can be achieved through specific measures in fields such as: education, labor market, etc. Affirmative action measures can be broadly defined as policy measures that aim to increase the participation of disadvantaged social group in mainstream higher education institutions by using group membership criteria for using participants. The most frequent measures are quotas or reserved places which encourage higher participation of the historically disadvantaged groups.

For example, in several Central Eastern European countries, which have a high concentration of Roma population such as North Macedonia, Serbia, Slovakia, Romania or Albania, the affirmative action policy has been introduced in order to increase Roma participation in higher education. In Italy, every year, a quota of reserved places for non-EU students with residency abroad is set for each degree programme. In Finland, since 2016 a quota for first-time applicants has been installed requiring higher education institutions to reserve some of the study places for those applicants who do not hold a higher education qualification or a higher education study place in Finland. An unexpected example of reserved places is provided by Institut d'Études Politiques de Paris - known as Sciences Po - (see Table 2), which decided in the early 2000s to enroll underprivileged students.

Table 2. Selected examples of affirmative action measures

HEI	Type of measure and components	Target group	Intended goal(s)
Sciences Po University, France	Dedicated seats	Students from disadvantaged areas	Open up elitist universities to underprivileged students

Few studies focusing on Europe have been addressing affirmative action measures' efficiency at the university level, with both of them focusing on Roma students.

While reserved places or quotas – as a tool for addressing past injustices and current inequalities - are the most known practices regarding Roma students' progression towards HE, their effectiveness or students' progress and/or tracking in these programs remain unexplored areas. Existing studies focusing on Roma have shown that the studies the quota systems are being kept “low profile”, which has a serious impact on the outreach of the policy, but also on the fields of study students can choose. For example, in North Macedonia quota system aims at facilitating the access of minority community students (i.e., Albanians, Roma, Vlachs, and Serbs) to public higher education institutions. Here, under the Ministry of Education faculties within each university are obliged to enroll an additional 10% of the assigned places to students belonging to minority communities (the representation of each minority group within the 10% is based on the percentage each of the minority communities represent as a total of the country's population). Idrizi (2013) aims to identify the effectiveness of the *quota system* at Saints Cyril and Methodius University, which at the date of when the dissertation was published had 21 years of experience in implementing affirmative action/ the quota system for minorities. The study revealed that there are several drawbacks (including misuses of the quota system by mainstream students) in the implementation of the quota system most of them related to the distribution of study places (Idrizi 2013).

Cismaru, Fiț and Gologan (2015) explore the efficiency of *reserved places* for Roma people in six Romanian universities. Even though the Romanian government allocates around 600 reserved places for Roma students, the study argues that there is no information available regarding the percentage of the study places which were actually taken up.

Generally speaking, the little evidence on reserved places in the European context does not allow to draw conclusions on effectiveness of the reserved places initiatives. Evaluating their efficiency is a difficult task, especially in cases which imply the collection of ethnic data. As Usher (2015) claims, reserved places for underserved groups brings concerns about effectiveness since students might arrive underprepared and are hence at high risk of non-completion. Moreover, this approach ignores (more or less) “all the insights about cultural and academic capital which underpin the early interventions strategy, and simply assumes that students from disadvantaged backgrounds will be able to thrive if given a place” (Usher 2015, p. 438). However, there are number of requirements, sticking to which can help to make a program successful. Crosby, Iyer, and Sincharoen (2006) propose that effective affirmative action programs should ensure the commitment of highly ranked administrators, adopt a clear communication channel about admission criteria and benefits of the affirmative action to potential beneficiaries, and establish an upward open communication from the underserved groups to policy makers.

3.3. Financial aid measures

Initiatives addressing the financial barriers that students face aim at easing the financial pressure for students already considered eligible. They include reimbursable or non-reimbursable financial aids. Non-reimbursable financial aids are under the form of needs-based grants and scholarships that target students coming from families with lower income, certain ethnic minority groups or rural areas, women or students with disabilities. The alternative is often tuition fee waivers or subsidies for the traditionally under-represented groups. All of them aim at eliminating the

possibility that the low family income acts as a deterrent to access and success in tertiary education. Reimbursable financial aid schemes (i.e., student loans) are sustainable forms of financial support requiring a lean administration setup, low subsidies and an effective recovery system. They are implemented differing in terms of the source of capital, the type of expenses they cover, the eligibility rules, the guarantees they require, and the repayment scheme (e.g. direct loans; loans guaranteed by the Government that are shared-risk loans; income-contingent loans). Table 3 provides several examples of the shape and dimensions of financial aid measures embraced by several universities.

Table 3. Selected examples of financial aid measures

HEI	Type of measure and components	Target group	Intended goal(s)
Open University of Catalonia, Spain	Scholarships and online learning	Professionals, refugees and asylum-seekers, people with functional diversity	Providing flexible distance learning degree programs
Universities of Glasgow, York, Barcelona, Edinburgh, Sussex, Warwick	Scholarships (i.e., waiving fees, providing tuition scholarships, and offering free courses)	Refugees	Widen access and ensure participation
University of Vincennes in Saint-Denis, France	Scholarships for refugees with little knowledge of French – Diploma University (DU)	Refugees	Preparation for additional academic courses

Existing studies focusing on Europe show that the *amount of aid* had direct effects on HE enrollment and access. Fack and Grenet (2015) show that a fee-waiver (which amounted to 174 euros) in France had small positive effects on enrolment in the first year of undergraduate programs, whereas the provision of 1,500 euros cash allowances to prospective undergraduate or graduate students increases their college enrollment rates by 5 to 7 percent.

Baumgartner and Steiner (2006) evaluated the effectiveness of a student aid reform in Germany that substantially increased *the amount received* by eligible students to raise enrolment rates into tertiary education. The study found that the reform had a small positive but statistically insignificant effect on enrolment rates, i.e., a 10 % increase in the federal students' financial assistance scheme led to a small but not significant increase in enrolment rates of low-income students.

Hatt et al. (2005) evaluated a financial assistance scheme, the Opportunity Bursary scheme (introduced in 2001), for students from low income backgrounds where institutions were allowed considerable discretion over the allocation of these awards. The research reports differences in the ways in which two institutions - in the South-west of England - administered their bursary schemes, and the effects on the students, and found bursary students from low-income backgrounds were more likely to continue beyond the year of entry than those students from low-income backgrounds who did not access the award. Moreover, it also revealed that the award of a *bursary* is strengthening the student's motivation to succeed and playing an active role in underpinning student persistence and success. Hatt et al. (2005) argue that there are two possible reasons why bursaries might have a positive effect upon HE continuation: firstly, the money itself might be useful and, secondly, the money might strengthen the student's commitment to study.

Lannert and Garaz (2014) are tracing Roma Education Fund's Law and Humanities Program *scholarship* beneficiaries (awarded a yearly amount between 500- 2300 EUR depending on the existence of a tuition fee and living expenses) in Moldova, Russia and Ukraine. Between 2004 and 2014, a total of 413 students benefited the scholarship scheme. The results of their evaluation shows that among these, 200 (48%) obtained at least tertiary level degree with complete or partial LHP support, while 144 did not graduate yet but are still in the program. Also, 35 beneficiaries (8%) dropped out their university studies before graduation or postponed graduation for later.

Since it was launched in 2008 and until the summer of 2015, Roma Education Fund's Roma Health Scholarship Program provided support to 527 Roma medical students from Romania, North Macedonia, Serbia and Bulgaria. The support can be operationalized as financial, academic and professional (i.e., scholarships - between 375 EUR and 5,360 EUR per academic year, preparatory courses, mentorship, advocacy camps and additional funding for courses, conferences and small community development projects). Out of the 527 beneficiaries, 146 (28 percent) were still in the program at the time of the study, 187 people graduated successfully with at least one degree and exited the program, 45 people some interrupted their studies or dropped out and 57 people continued their studies without RHSP support, and 86 people exited the program but could not be found to track their academic progress and graduation status (Roma Education Fund 2015).

The evaluated evidence shows that on the one hand the amount of the financial aid can have positive effects on enrollment, on the other hand, depending on the target groups and the field of study, financial aid measures need to be complemented by other measures in order to foster enrollment.

3.4. Preparatory courses and programs

Preparatory courses and programs aim to evening out previous or existing inequalities with regards to prospective students' previous education (can refer to i.e., the quality of previous education, switch of field of study, language of instruction, academic ability, etc.). Besides this, the target of such measures can include first generation and non-traditional students, disadvantaged and students who do not have any experiences with academia and higher education. The general purpose of these measures is to enable the students prepare efficiently for their further or higher education studies. The format in which these courses and programs take place can differ from university to university (see Table 4): intensive academic courses in areas students would like to pursue higher education studies, general academic preparation (academic writing, critical thinking and study skills), auditing courses, introductory semesters, language courses enabling students to pursue studies in English (or other) language based programs but also general application process support and information. Completing the programme enables students to apply for university entry in the various fields of study but also to gain first-hand experience and insights into a higher education program. Last but not least, such measures could also contribute in enhancing students' familiarity with a higher education environment and in supporting them overcoming (academic and social) integration barriers at universities.

Table 4. Selected examples of preparatory courses and programs

HEI	Type of measure and components	Target group	Intended goal(s)
Leuphana University, Germany	A first semester as an induction period	Mainstream students	Familiarity with academic life and reduce drop-out
Technical University of Munich, University of Tuebingen and Bielefeld, Germany	Free German language courses	Refugees	Prepares students for higher education study at German universities
Central European University, Budapest	Preparatory, non-degree language and academic courses, tutoring – OLIVE, Roma Graduate Preparation	Roma, Refugees and asylum-seekers	Prepares students for higher education study at international universities
Brunel University, UK	Preparatory monthly sessions in key subjects, guest speakers and role models - The Urban Scholars Programme	Prospective talented students from deprived areas	To increase achievement and HE aspirations

University of Vienna, Austria	Free academic courses - Open Learning Initiative	Individuals with refugee or asylum seeking status	Preparation for the Austrian academic higher education system pursuing
Frankfurt University of Applied Sciences, Germany	Intensive language course, attending modules over two semesters - Welcome Year for Refugees	Refugees	Offering the opportunity to take on or continue a degree course
Metropolia University of Applied Sciences	Training courses, application processes support	Persons with an immigrant background	Increase the ability of immigrant people to enter higher education

In Germany prospective refugee students – who are treated like all international students - during their application and enrolment, receive special support in order to deal with their specific situation. Since the entrance criteria for the preparatory colleges include advanced knowledge of the German *language*, special classes prepare refugees for the entrance test in order to enroll in the preparatory courses that lead to the assessment test. According to Berg (2018), these preparatory colleges and preparatory courses can be seen as important institutions for the internationalisation of German higher education and the support of prospective refugee students.

The Roma Graduate Preparation Program (formerly known as the Roma Access Programs) at Central European University is an initiative providing preparatory courses for Roma students. The program aims to prepare Roma university graduates across Europe – through *academic English, academic writing and tutoring in a field of choice* - to compete for master's programmes either at CEU or abroad. Since 2004, when it was founded, the programme has enrolled 218 Roma students from all across Europe. Out of the total students, 215 graduated and 141 (nearly 65%) were accepted into a master's programme at the end of their studies (Rostas 2017).

Pinheiro-Torres and Davies (2008) evaluate the Brunel University's Urban Scholars programme, a 3-4 year intervention aimed at *increasing achievement and HE aspirations* among talented students from lower socio-economic backgrounds and disadvantaged areas, aged 12-16. The paper discusses the emerging findings after the first 2 years of the program and suggests the biggest change occurs within scholars' confidence. Updated, self-reported data shows that program leavers had a higher education orientation of 88% after 3-years attendance and almost half of them received offers of places in universities and 83% of them started HE studies. Looking at the same program, Casey, Smith, and Koshy (2011) found that the program "had some success in steering students toward greater ambition and an awareness of the rewards of higher education" (p. 43), and that 90% of the students who participated and completed the programme either met or exceeded the school targets compared with 22% of the rest of the gifted and talented group who met or exceeded their school targets.

Walker (2010) investigates the academic performance of adults who entered the University of Glasgow via the Scottish Wider Access Programme (SWAP) between 1988–1993, including a *pre-university summer school* where non-traditional students (i.e., adults, with a socio-economic disadvantage) receive preparation and independent advice about opportunities to access higher education. The findings show that there were few differences between the students who attended the summer school and those who did not. The students who attended the summer school dropped-out at largely the same rate as those who did not. Recent self-reported data shows that since the first pilot of SWAP in 1987 more than 32,000 adults have taken the SWAP route to return to study, and helped many adults realize their potential and given them the confidence to succeed in college or university.

In general, preparatory courses and programs prove to provide promising evidence on their efficiency, however this depends on their specific components.

4. Conclusion

Overall this research has found little publicly available studies and information about the actual outcomes of most measures. First of all, the identified studies cover a limited number of access measures available in Europe (i.e., none of the studies identified looked at the effectiveness of the widespread online platforms – most of them targeting refugees). Secondly, the existing studies do not provide a comprehensive geographical overview across Europe. With the few exceptions on the studies looking at Roma in CEE countries, most of the identified research explores the context of the UK, Germany, France, Italy or Finland. This research suggests that more evidence-based approaches will be necessary to effectively learn from these specific access measures.

The impact measurement is hampered by the impossibility of isolating the effects of such policies in order to attribute cause and effect, as well as by the difficulty of generalizing particular results. The current promising, but limited amount of research in the European context shows that the most effective way to tackle unequal access to HE are the measures that combine financial assist with measures that help to overcome non-financial obstacles. Success is also guaranteed by a cooperation between governments, HEIs or other education providers, NGOs, public authorities (in fields like health or welfare that complement the interventions in education), families and/or private companies. Programs with a positive track record in terms of improving equity seem to be those combining financial support with non-financial aid offered to students (Salmi and Basset, 2014) as well as those empowering students, setting high academic expectations and helping students and parents believe in themselves and in their educational success (Usher, 2015). These latter ones tend to be more intrusive and require frequent contact with the targeted individuals – e.g. academic support, mentoring programs.

Usher (2015) contends that there are several difficulties in terms of being able to make definitive statements about “what works” among which the ability to collect adequate data, the ability to properly attribute cause and effect (i.e., the difficulty to isolate the particular effects of a policy), the generalizability of particular results (i.e., issues of transferability in different institutional settings) and the tendency to re-define the term “equity” when results become inconvenient (i.e., politically unwelcomed results). Similarly, Claeys-Kulik, Jørgensen and Stöber (2019) argue that the collection and use of data on equity are often subject to controversial discussions, and perspectives vary according to cultural, political and legal contexts across Europe.

Identifying policy practices that work is difficult as there is a severe lack of adequate, reliable and consistently collected data. This is often used as an excuse for the lack of action towards more equitable systems (ESU, 2006), but it also hinders the option of evidence-based policy-making or of measuring the impact of the initiatives already put into practice. Referring to specific measures targeting refugees, Streitwieser, Ohorodnik and Jeong (2019) argue that while sponsors described their plans for supporting refugees, they often do not share the amount of funding, the number of beneficiaries impacted, and other key data.

Reference list (to be finalized)