

Diversity Management of Socio-Economic Factors in Higher Education Institutions

Anne-Lou Johanna Alberta Scholten

s1721267

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First supervisors: J.J. Vossensteyn and A. Kottmann

Second supervisor: M.R.R. Ossewaarde

European Public Administration

University of Twente, Enschede

Abstract

Society has become more complex over the last couple of years, as globalisation and diversity have increased. This research examines how well diversity is managed in accessing two institutions, the University of Duisburg-Essen, Germany, and the University of Cambridge, United Kingdom. The focus of the research is on how diversity strategies will impact the influence of socio-economic factors. A framework was developed to investigate the relationship between the socio-economic factors and the access to a higher education institution. Interviews were conducted to achieve an insight from a professional point of view on the experience of the implementation and achievements of the diversity strategies. Analyses of statistical data on the student populations and the strategies and instruments at both universities helped further establish the achievements, guidelines and measures of the diversity strategies. The results of this research show the positive effects of the implementation of a diversity strategy at one of the institutions, whereas the affect of the diversity strategy is not well visible on the other institution.

Key words: diversity management, diversity strategy, higher education institutions, socio-economic factors

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1. Introduction

1.1. *Introducing the problem of access to higher education*

Society has been changing and has become more diverse than it has ever been before. Many people from different backgrounds including but not limited to people from different socio-economic backgrounds, ethnicities, citizenship status, religions and sexuality live together in society. In an ideal situation these people with different backgrounds would have equal opportunities with regards to many aspects of life, including access to higher education. Unfortunately, in reality, there are no equal chances and opportunities for everyone, with regards to many aspects in life, including access to higher education. Data and literature provide a picture in which people with certain characteristics – for example coming from a higher social class or having a white skin colour – have a better chance to enter higher education than people with different characteristics – for example speaking a further language next to the national language, or having special educational needs (Alan et al., 2017; Campbell, 2013; DiPrete and Buchmann, 2013; Judgovic, 2017; OECD, 2015).

1.2. *Explanations for the inequities in access to higher education*

Individual factors related to family and living environment – gender, ethnicity, socio-economic status, living environment, primary and secondary education performance – and the characteristics of a higher education institution are influences that affect the access to higher education for individuals the most. Multiple articles have found that ethnicity, social class and the economic status of an individual can all significantly negatively and positively influence chances of access to higher education (Goldrick-Rab, 2006; Goldrick-Rab et al., 2007). Stereotyping is done on the basis of the aforementioned characteristics, but also other characteristics, but is something that is difficult to change (Campbell, 2013). Furthermore, the type of living environment – urban, suburban and rural – is suggested to have an influence on the access to higher education. Data has shown that the percentage of pupils from a rural area enrolling in postsecondary education is lower than similar pupils coming from suburban and urban areas. Prior research on the residence of students revealed different results with regards to its influence on the access to higher education – some highlight the disadvantages of living in a rural area, for example the fact that most of the students coming from these area are from a lower socio-economic background, while others highlight the advantages of living in a rural area, for example the big social network to fall back on, and the effects of these (dis)advantages on access to higher education (Bowling, 2013; Byun et al., 2012; Hu, 2003; Roscigno et al., 2006). Primary and secondary education performances of pupils, which is the focus of many studies, is seen as the main influence for access to higher education, since it is an indicator of possible educational achievements of students (Akerlof & Kranton, 2002; Alan et al., 2017; Campbell, 2013; Clark, 1995; DiPrete & Buchmann, 2013; Jugovic, 2017; OECD, 2015; Warrington et al., 2000).

Institutional characteristics such as type of institution, the reputation of the institution, amount of tuition fee, size and composition are all characteristics which are taken into account by a student when applying for an institution. The higher the tuition fee a student has to pay is, the lower the enrolment numbers will be for that institution (Hübner, 2009). Furthermore, research has found that there is a strong correlation between the reputation of the institution and enrolment numbers, the higher the institution is in the reputational ranking, the more applicants it will receive. However, the higher an institution is in the reputational ranking, the more it is accepted that they turn down many students (Hazelkorn, 2012). The extent to which social media has an influence on the application of students is a factor about which research cannot agree (Hayes, 2014; Ljepava, 2016).

1.3. Diversity strategies

Management of diversity in an organisation or institution is important because of the influence of the aforementioned individual characteristics and the perception of institutional characteristics. The management of diversity in relation to access to higher education includes multiple issues (Cox & Blake, 1991). Diversity management at higher education institutions should include but not be limited to race, ethnicity, gender, sexual orientation, disability, national origin, citizenship status, age, language, culture, region, and economic status of a student. Hereby, diversity strategies have to aim at the goals of providing access to their institution for students with different backgrounds, and create an environment in which these students with diverse backgrounds perform to the best of their abilities and have the best possible chance of graduating. Therefore, the aim is to provide applying and accepted students from a disadvantaged background with an equal opportunity to their fellow students (Kruse et al., 2017; Van Vught, 2007). What kind of strategy is used in the management of diversity by an institution, depends on the institution itself (Kruse et al., 2017). However, for a strategy to work as planned, it is depending on the presence of certain conditions, including time, communication, trust and openness, supportive leadership and access to supportive knowledge (Adserias et al., 2016; Engberg, 2004; Kruse et al., 2017).

1.4. Research questions of this study

This study aims at comparing the diversity strategies of two universities that have a strong focus on the management of socio-economic factors influencing access to their institutions. These two universities are the University of Duisburg-Essen and the University of Cambridge. Throughout history, it has been shown that going to higher education was something prestige and only for the higher classes of society. Nowadays, we want higher education to be available for everyone in society, with the capacity and interest to do so. However, there are still circumstances that hinder people from going to higher education, for example their economic situation or social background. Many institutions and organisations, including higher education institutions, have created strategies / agendas to manage diversity and create an equivalent chance for everyone in society. The aim of this thesis is

to analyse the strategies of two higher education institutions, the achievements and effectiveness of the strategies, and the challenges still faced by the institutions. Hereby the aim is at answering the main research question:

‘How do the diversity management strategies at the University of Duisburg-Essen, Germany, and the University of Cambridge, United Kingdom, differ with regards to affecting the impact of socio-economic factors on access to higher education?’.

This question is going to be answered by an analysis of student population data, an analysis of the diversity strategies and instruments, and the perceptions of an university employee and an employee of students supporting organisation. To answer the main question, sub-questions were formulated to structure the thesis. The sub-questions to the main question are:

- *‘Which diversity strategies are used by the University of Duisburg-Essen and the University Cambridge?’,*
- *‘What do the diversity management strategies achieve at the University of Duisburg-Essen and the University of Cambridge?’ and*
- *‘What differences can be found in the achievements of the strategies of the University of Duisburg-Essen and the University of Cambridge?’.*

1.5. Outline of this thesis

The thesis will continue as follows. In the next chapter, the national policies of the countries of the intuitions under review will be discussed, with the federal state educational policy included for Germany. The third chapter will discuss the literature review and conclude with a theoretical framework. Following this chapter are the methodology and data / documents chapters. The sixth chapter will be the analyses of the found data of both universities and a comparative analysis of the institutions under review. Following the analysis, a conclusion is drawn. In the eighth and ninth chapter the references and appendix can be found.

2. National policies

This chapter will discuss the national policies of the countries in which the institutions under review are located.

2.1. *Germany*

In Germany, federal states are responsible for the education policies. There is not one educational policy for Germany as a whole. However, there are institutions and organisations related to education at national level, for example the German Centre for Research on Higher Education and Science Studies (Deutsches Zentrum für Hochschul- und Wissenschaftsforschung). The DZHW provides data on various indicators for study success, including the dropout and completion rate. The Higher Education Statistics Act (Hochschulstatistikgesetz) regulates the information that might be collected of student, including data with regards to student characteristics. Due to strict privacy regulations it is not allowed to use students characteristics for tracking of student's educational pathway. Therefore, detailed information lacks with regards to achievements of students, changes in completion and dropout rates and specific information about a student population or a student sub-population.

As mentioned before, in the German higher education system there is a federal organisation. The federal states are responsible for higher education in general, including funding and regulation of the higher education institutions. This creates a national system with different ways of regulating higher education. It is tried to have educational policies that are similar to one and other in all German federal states. However, this might have been difficult because of the cooperation ban until recently. Still, the federal states and federal level tried to cooperate to for example help safeguard the international competitiveness of the German higher education system.

In December 2014, the cooperation ban has been loosened, so the federal level and the federal states can cooperate in certain situations and/or under certain circumstances. This provided room for two administrative arrangements to be implemented, both providing funds to improve the quality of teaching at higher education institutions. The first arrangement is The Higher Education Pact 2020, which helps support higher education institutions in tackling expected increased number of enrolling students at their institutions. The second arrangement is The Quality Pact for Teaching in which higher education institutions are encouraged to improve the quality of teaching and learning at their institution by implementing instruments and measurements aiming at the increase of quality of teaching and learning. Funds for The Quality Pact for Teaching arrangement are distributed in a competitive process, in which institutions have to send in a proposal explaining their plans to create a process to increase the quality of their teaching and learning.

Next to the main responsibility of the federal states and the two federal level arrangements, there is an intermediary level which can impact the higher education policies in the federal states. Examples of such intermediary level organisation are the Council for Science and Humanities (Wissenschaftsrat), the German Rector's conference (Hochschulrektorenkonferenz) and the Foundation for the Accreditation of Study Programmes in Germany (Akkreditierungsrat).

Widening the access to institutions for students from disadvantaged backgrounds has been a target throughout the past years. Especially the enrolment of students from lower socio-economic backgrounds is an issue for higher education policies. The selection in primary and secondary education is a considerable reason for the lower participation of students of lower socio-economic background. Therefore, most importantly are the measurements taken to help students with their transition from secondary school to higher education in the educational policies. Next to measurements taken for students from a disadvantaged background, there is also financial support for eligible students. BAföG – Bundesausbildungsförderungsgesetz and Germany Scholarship (Deutschland – Stipendium) are two financial support measurements provided by the federal government. BAföG provides students who match with the criteria – good grades at secondary school and coming from a low socio-economic background – with a fund in a way of a grant / loan. The Germany Scholarship is a scholarship for talented, high-achieving students, students who show a special social commitment or students that had an educational career with many hurdles until now. Both financial support measurements do have a special attention for students from a low socio-economic background (Kottmann et al, 2015, p. 73-102).

2.1.1. North Rhine-Westphalia

North Rhine-Westphalia, the federal state in which the University of Duisburg-Essen is located, has its own Hochschulgesetz (education policy). Study success is high on the political agenda in this federal state, including the target to reduce the dropout rates in higher education institutions in the federal state. Next to the educational policy, additional measures to better inform students about education and possible funding are created by the North Rhine-Westphalia government. For example a website which informs potential students with their best competencies and interests, but also with recommended disciplines and degree programmes based on their competencies and interests. However, most information and support for students is done by the higher education institutions themselves. The possible funding of students is the aforementioned national policy and is based on performance in the previous education years and the family background.

The higher education policy in North Rhine-Westphalia is fairly new, with measures for the diversity of the student population of an institution. However, there are no legal consequences for higher

education institutions. The Hochschulgesetz states that there is not yet a legal reason to make it obligated for higher education institutions to establish a diversity strategy, but there is a wish from the federal state government to do so (Kottmann et al., 2015, p. 89-90).

2.2. United Kingdom

Until 2018 higher educational policies were developed and implemented by the Higher Education Funding Council for England (HEFCE). HEFCE works on behalf of the relevant government ministry, for the period of time in this thesis that is the Department of Business, Innovation and Skill (BIS). HEFCE receives guidance from BIS on its priorities, and HEFCE transforms this into policies and guidance for the sector. The policies are split in two categories that impact student retention and success: learning and teaching, and student access and success.

Retention and success is improved by providing institutions with funding from 2003 and onwards. In addition to this funding, other initiatives and funding were introduced to improve the quality of learning and teaching within institutions and across the sector. Results from the National Student Survey (NSS) and retention rates have supported the work to improve student retention and success. This data includes indicators, a benchmark of where each institution is expected to be in terms of retention and NSS results on the satisfaction with the higher education institution. Benchmarks and the results coming from the NSS are main drivers for institutional change. Furthermore, HEFCE has taken other initiatives to further interpret and address the attainment differences.

Under the Higher Education Act 2004, the Office for Fair Access (OFFA) was set up to ensure that the introduction of higher tuition fees 2006-2007 does not stop students from accessing higher education because of financial reasons. When charging more over £6000 of tuition fees, an institution is obligated to submit an Access Agreement to the OFFA. In the Access Agreement it should be specified how the institution will spend a part of the tuition fees income in ensure access and success of disadvantaged student groups, especially students from a low socio-economic status. Furthermore, higher educational institutions are committed to increase the participation of underrepresented groups at their institution. OFFA and HEFCE were requested by the BIS to draft a strategy for widening access and increasing student success between 2012 and 2013. As a result, the National Strategy for Access and Student Success was published in 2014. This strategy emphasises the importance of belonging particularly to academic programmes through learning and teaching, combining universal and targeted support, and appropriate financial support.

Data used in the creation and implementation is reported by the Higher Education Statistics Agency (HESA). The number of actual students is linked to the amount of funding an institution will receive. However, the biggest part of the funding of an institution is paid by students' tuition fees, rather than

funding from the state. Higher education institutions can charge up to £9000 tuition fees annually. To fund their study, students can apply for three types of funding at the national level: 1) tuition fee loan; 2) maintenance loan, and; 3) grant. In case of the tuition fee loan, the higher education provider receives the borrowed amount of money of a student as tuition fee and the student pays back the loan after graduation. The maintenance loan for living costs is available for full-time students under the age of 60. All students eligible for a loan receive an annual loan of £3750. Depending on the income, status of living, and living location the size of the loan can increase. After graduating a student has to pay back the loan, but only when he or she earns more than £21,000 per year. The third type of funding is a grant. A grant is not granted to every full-time UK student. Depending on the household income the size of the grant is calculated. The difference with a loan is that the grant does not have to be paid back.

Next to the student loan funding, a higher education institution receives public funding from the Higher Education Funding Council for England (HEFCE). The size of the funding to the institution is decided by the HEFCE and is announced in March and allocated in the winter. The funding is made up by a teaching grant and a research grant. The size of the teaching grant is based on the actual number of students of an institution, but it also includes the Student Opportunity Funding. The Student Opportunity Funding is composed of three stands: 1) widening access for students from disadvantaged backgrounds; 2) improving retention, and; 3) supporting disabled students. Retention is calculated based on risk of withdrawal of students, taking age, entry qualification and course into account. The risk can be low, medium or high. Since it is found that tuition fees have a direct link to the enrolment number and continuing number of students at an institution, additional funding is provided for students from a medium or high risk background.

Next to data on student numbers, the HESA calculates benchmarks for every higher education institution. These benchmarks are the expected rate of non-continuation of the institutional population and sub-population, and are often related to the widening participation of an institution. The benchmarks creates the possibility for an institution to compare themselves on a year to year basis, giving them and the public good quality information on their institution population (Kottmann et al., 2015, p. 26-47).

3. Theory

This chapter will review the literature on diversity strategies, individual characteristics influencing the access to higher education and perceptions of institutional characteristics. The chapter will conclude with a framework, which is established from the reviews of the literature. The framework will show the relationship of the direct and indirect influencing independent variables on the dependent variable 'access to higher education'.

3.1. *Diversity Strategies*

Diversity is identified as one of the factors positively influencing the performance of people in higher education (Kruse et al., 2017; Van Vught, 2007). Van Vught (2007) presents an overview of seven arguments given by Birnbaum and Bensimon (1983) – which he has slightly changed – in favour of diversity regarding higher education. One of the arguments in favour of diversity presented by Van Vught (2007), states that a more diverse system is assumed to provide better access to higher education for students with different educational backgrounds and academic achievements. In this environment, students with different backgrounds can compete with each other, and perform at their best and is the possibility of success more realistic (Kruse et al., 2007; Van Vught, 2007). A further argument suggests that diversity has a positive influence on social mobility. Diversity strategies provide more ways of entering higher education and forms of transfer, which stimulates a system in which people can move up the 'social ladder'. It is also argued that without the mass society, which is identified with diversity, a university cannot survive. The increasing heterogeneous society demands an educational system, which can provide employees that offer knowledge and skills that are relevant for a complex society (Van Vught, 2007).

Managing cultural diversity is becoming increasingly important with the growth of globalisation and a more complex society (Adserias et al., 2016; Cox & Blake, 1991; Engberg, 2004; Hurtado, 2001; Hurtado, 2007; Kruse et al., 2017; Ladson-Billings, 1999; Wentling & Palma-Rivas, 1997). Cox and Blake (1991) suggest that managing cultural diversity has multiple issues to which it refers: "1) educational programs; 2) cultural differences; 3) mind-set about diversity; 4) organisation culture; 5) human rights management systems; 6) higher career involvement of women, and; 7) heterogeneity in race/ethnicity/nationality" (Cox & Blake, 1991, p.46). When failing to make changes, organisations or institutions will be disadvantaged in being able to represent society and functioning to the best of their abilities in comparison with organisations or institutions that do make the necessary changes when managing diversity (Cox & Blake, 1991).

Diversity management is often done by following a diversity agenda or strategy. However, which issues are touched upon in the diversity strategy and who is responsible for the development and monitoring of the strategy, differs between institutions. Most diversity strategies of education institutions are focussed on training students in diversity (Kruse et al., 2017), but there are also institutions that include staff in their diversity strategy. According to Wentling and Palma-Rivas (1997), including staff in a diversity strategy – and not only focussing on students – creates a stronger strategy. Five other strategies are mentioned to be strong approaches to the management of diversity: “1) training and education programs; 2) mentoring programs; 3) performance appraisal systems that are non-discriminatory; 4) outreach programs, and; 5) career development programs” (Wentling & Palma-Rivas, 1997). Engberg (2004) presents the effects of educational interventions – multicultural courses, diversity workshops or training, peer-facilitated interventions and service interventions – on racial stereotyping in higher education institutions. Results show the decrease of racial stereotyping in most educational interventions (Engberg, 2004, p.501).

The envisaged result of a diversity strategy depends on conditions that will support the functioning of the diversity strategy. Kruse et al. (2017) have done an extensive literature review and came to the conclusion that there are six necessary conditions that will support the functioning of a developed diversity strategy: “1) time to meet, learn, and process new learning; 2) time to monitor, evaluate, and refine processes and practices across the campus; 3) communication structures that support the work of cultural competency; 4) a climate of trust and openness to improvement and learning; 5) supportive leadership, and; 6) access to expertise designed to support individual and organisational learning” (Kruse et al., 2017, p. 10-13). The first two conditions suggest that the diversity strategy should have enough time to develop and properly function. There should be no rush with the implementation of a diversity strategy, and staff and students should be given a period of time to learn and process the new information regarding guidelines, targets, instruments and measures taken by the university, as explained in the diversity strategy. Furthermore, the institution must have time to monitor, evaluate and refine the processes and practices of the by them created strategy (Kruse et al., 2017).

The third and fourth conditions both demand a certain type of environment. An environment in which communication is key creates the spread of ideas within and outside of an institution (Kruse et al, 2017). The creation of effective communication between faculty, staff and students establishes a network in which discussion, reflection and engagement is promoted (Engberg, 2004). This network can be used by the institution to monitor, evaluate and refine the processes and practices of the strategy. Furthermore, the environment needs to be one of trusts and openness. The confidence of an institution about the will to learning and trusting in the learning outcomes of its employees and students, might give the students and staff the willingness to participate in the improvement of the implementation of diversity within the institution. Only then an environment is created in which improvement of the diversity strategy and the new knowledge can be developed (Kruse et al., 2017).

Next to an environment in which a diversity strategy can develop, leadership which supports the creation and development of a diversity is needed (Adserias et al., 2016; Kruse et al., 2017). The support of leaders creates room for the rest of the organisation to further develop and enforce its diversity strategy (Adserias et al., 2016). The creation of a diversity strategy demands knowledge and expertise for the development of the right strategy for the institution. Therefore, access to the required expertise about content and practice is needed. Why and for whom a diversity strategy is important is included in content expertise, and expertise of practice informs the institution on possible strategies and elements for their own strategy (Kruse et al., 2017).

3.2. Influences on access to higher education

3.2.1. Individual factors

From the large and growing pool of literature on the topic of diversity in education, many articles, books and reports give different reasons for the differences in access to higher education for different types of people. Literature points out the influence of factors related to family and living environment – living environment, primary and secondary education performances, gender, socio-economic status, ethnicity – on access to higher education. Primary and secondary education performance is often seen as the main influence on access to higher education (Deil-Amen & Turley, 2007; Goldrick-Rab et al., 2007). However, for this thesis the interest and focus is on the influence of socio-economic factors in accessing higher education.

Ethnicity and social class are two factors that can either lower or higher a pupil's chance of accessing a higher education institution. Certain ethnicities – black – and / or coming from a lower social class – have a smaller chance of accessing a higher education institution, compared to other pupils with certain ethnicities – Asian – and / or coming from a higher social class (Goldrick-Rab, 2006; Goldrick-Rab et al., 2007). Furthermore, the economic status of the family of a potential student has an influence on whether a pupil decides to enrol at a higher education institution. As most postsecondary education institutions ask for a yearly tuition fee when attending the institution, the poorest students base their choice of attending a higher education institution on the fact if it would be affordable to go to postsecondary education, or if they might have the right or chance on a grant (Goldrick-Rab et al., 2007). There is data that suggests that the socio-economic factor is most often considered to influence the students coming from a rural area (Byun et al., 2012; Roscigno et al., 2006).

Boudon (1973) has developed an interesting theory with regards to the issues of educational opportunity and social inequality. In Boudon's theory the central concept is whether the inequalities in educational attainment are related to the inequalities in social mobility. Boudon states in his research: "In other words, if educational attainment is actually a powerful determinant of status, the probability of an individual having a higher status than his father should be greater, the higher his level of

education. Conversely, the probability of an individual falling to a lower status than his father should be greater, the lower his educational attainment level” (Boudon, 1973, p. 3). In a given society there is a high degree of inequality in educational attainment according to Boudon (1973). The industrialist structure of a society demands for educated people, but coming from a higher socio-economic background does not automatically mean that you will be filling up the higher educational positions (Boudon, 1973). However, the data presented in the Boudon’s research show that the influence of the socio-economic status of a father does influence the son’s achieved social status, most notably, if father and son have the highest level of socio-economic background. The effect of the socio-economic status becomes stronger as the father’s educational level decreases.

3.2.2. Perceptions of institutional characteristics

Characteristics as composition, size, type of institution (technical, applied science, law), public or private institution and reputation of the institution, influence access to higher education (Deil-Amen & Turley, 2007). Research has found that tuition fee reduces the chance that students will enrol at a higher education institution significantly than when no tuition fee needs to be paid for a year of higher education (Hübner, 2009). Hazelkorn (2014) points out the strong correlation found in many studies between the institutional reputation ranking and application behaviour of students. The assessment of reputation is done on the basis of three factors: “1) overall ranking; 2) tier [reputational] level, and 3) changes in tier level” (Hazelkorn, 2014). The higher an institution is in reputational ranking, the more accepted it is that they only accept a smaller number of applying students, whereas of a lower ranked institution it is expected to accept a higher percentage of applicants (Hazelkorn, 2014).

In a study of Hayes (2014) into the influence on enrolling at a certain educational institution, first year students were given the question ‘what factors most influenced the enrolment decision?’. Most of the students indicated that visiting the institution was the most influential factor, next to the factor scholarship. Social media was to be found as one of the least influencing factors in this study, just as a high school counsellor and teacher. Ljepava (2016) had a different outcome in her study with regards to factors that influence the choice of an educational institution by a pupil. The study found that the recruitment of prospective students via social media was seen by a majority of students as effective and efficient. However, most students also valued the importance of word of mouth marketing, since if a friend or family member recommends a university the influence on the possible enrolment is high.

3.3. Theoretical framework

When putting together the various elements that are important with relation to access to higher education and the role of diversity strategies may play in that, the following theoretical framework can be presented.

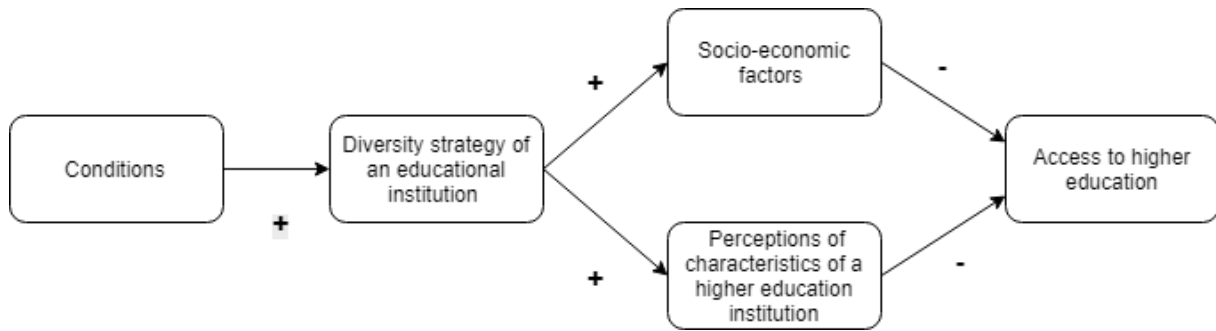


Figure 1: Theoretical framework

3.3.1. *Description of the framework*

Conditions: circumstances which create an environment in which management of diversity functions at its best, such as enough time to learn, meet, process, monitor evaluate and refine the instruments for the management of diversity, a well structured communication network, a climate of trust and openness, supportive leadership, and access to expertise to support individual and organisational learning.

Diversity strategy of an educational institution: policy instruments, practices and/or ideas of an institution to integrate diversity in the institution combined in a written document.

Socio-economic factors: factors related to or concerned with the interaction of social and economic factors, for example how a student finances their study, or if a student has a migration background, or their living environment.

Perception of characteristics of a higher education institution: perception of students with regards to characteristics of an institution such as composition, size, type of institution, reputation, amount of tuition fee that needs to be paid, and the way of recruitment of prospective students.

Access to higher education: the enrolment of students to higher education, by various background characteristics.

4. Methodology

This chapter will explain the research in more detail. First, an overall description of the research will be given. Second, the methods used in research are discussed in more detail and in connection with the research of this thesis. Third, it will be explained how the methods will be used to examine the variables mentioned in the theoretical framework. Finally, the operationalisation of the research is explained, for both the quantitative and qualitative research.

4.1. Overall description of research

This research includes quantitative and qualitative research. The quantitative research aimed at measuring if the number of students from a socio-economic background had increased in the student population of the institutions under review over the years and might even increase in the future based on the data of the past. The qualitative research focused on collecting, analysing and describing data by the observation of the actions and statements of the selected institutions and their employees. The research is in the form of a comparative case study between the University of Cambridge, United Kingdom, and the University of Duisburg – Essen, Germany. Figure 2 shows that the methods used in this research are an interrupted time series, strategy analysis based on a literature review and interviews. The interrupted time series will be used to help answer the sub-question *‘What do the diversity management strategies achieve at the University of Duisburg-Essen and the University of Cambridge?’*. The sub-question *‘Which strategies are there at the University of Duisburg-Essen and the University of Cambridge?’* is answered by the use of strategy analysis, which is based on a literature review. The interviews and the interrupted time series are used to answer the sub-question *‘Which differences can be found in the achievements of the strategies of the University of Duisburg-Essen and the University of Cambridge?’*. All the sub-questions and the methods used, are combined to answer the main question of the research *‘How do the diversity management strategies at the University of Duisburg-Essen, Germany, and the University of Cambridge, United Kingdom, differ with regards to affecting the influences of socio-economic factors on access to higher education?’*.

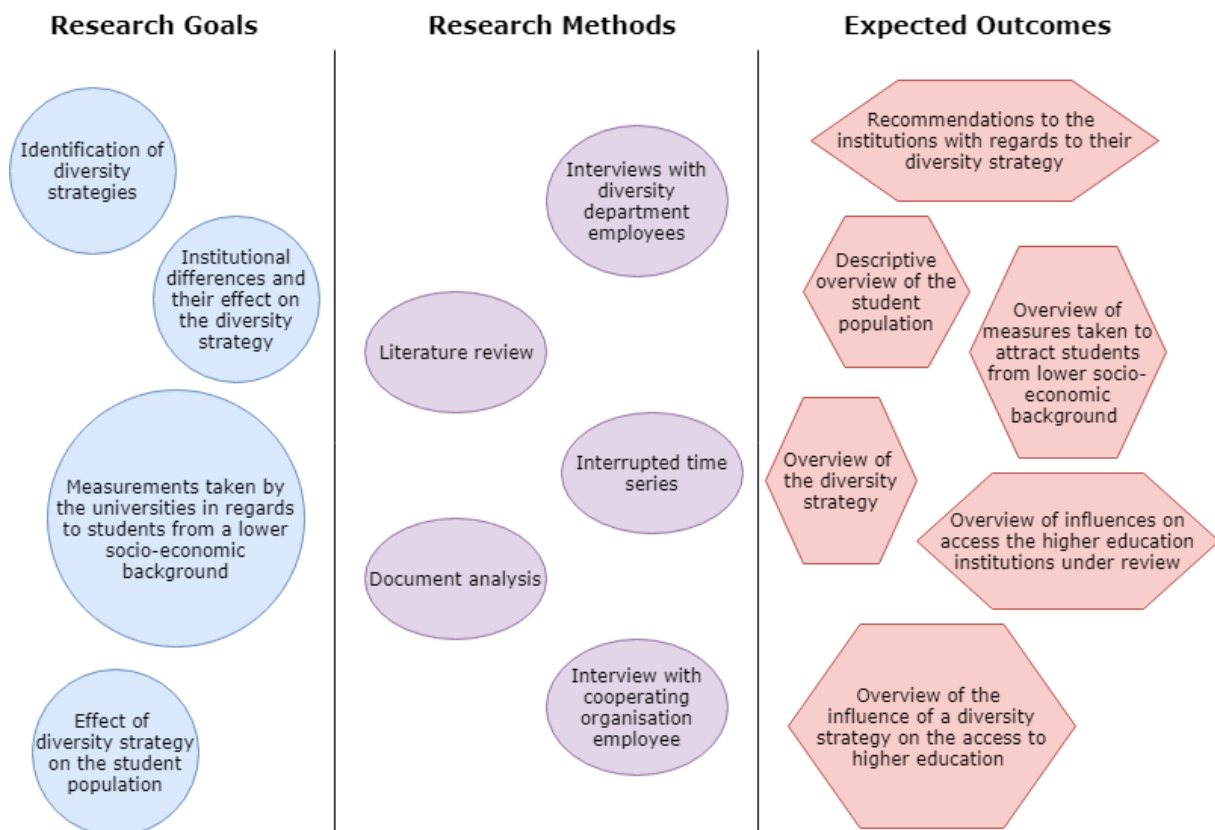


Figure 2: Research goals, methods and expected outcomes

4.2. Detailed description of the research methods

To answer the main research question, a comparative case study was conducted at the University of Duisburg-Essen and the University of Cambridge. The comparison and contrasting of the findings of both institutions provide for a better understanding of the findings at both universities. In the following section the methods used are explained in more detail. However, first the case selection of the two higher education institutions under review is explained.

4.2.1. Case selection

The University of Duisburg-Essen and the University of Cambridge have been selected for this comparative case study. Most important for the selection of both higher education institutions is the fact that both have a diversity strategy. The University of Cambridge because of the commitment it made to the Widening Participation policy, whereas the University of Duisburg-Essen has created one after recognising the challenges and opportunities a diverse population has. It is the first German university that developed a diversity management strategy. Also the big differences between factors that came forward from the theoretical framework, such as population size, reputation of the institution and tuition fee, were factors that influenced the selection of the two institutions under review. For example the differences in tuition fee is a reason for selection. The University of Cambridge has a tuition fee for United Kingdom students of 9,250 £/per year for students starting their study in 2017-

18, whereas the University of Duisburg-Essen does not have a tuition fee, only a voluntary semester contribution.

The case study will compare the diversity strategy of the two institutions under review, starting with the University of Duisburg-Essen. The University of Duisburg-Essen believes that a diverse society should be visible in their student population and staff, and their way of working. Recognising the challenges and opportunities of a diverse society, the university decided to create a diversity strategy. The challenges and opportunities coming from the diverse society are mostly for people from the area of Duisburg-Essen, most coming from a lower income and/or educationally disadvantaged section of the population, and who frequently have a migrant background. In order to improve the education opportunities and academic successes of students from a disadvantage background, various measures – better advice and help around subjects which are diverse and discriminative sensitive; more diverse content of studies; further development of internationalisation – have been set up and developed to help students at all levels – pre-higher education pupils until postgraduates. To help pre-higher education students the University of Duisburg-Essen has started working together with secondary education school and funding bodies, for example ArbeiterKind.de, to provide disadvantaged pupils with a better possibility of to access higher education (Universität Duisburg-Essen, 2016).

The University of Duisburg-Essen was the first German university to implement a diversity strategy. The size of the university is quite big with almost 42,000 students and the ratio of female to male is 48:52. The percentage of international students is thirteen, however, as aforementioned because of the location of the university, there is a large percentage of students with a German nationality, but with another ethnical background. In the World University Ranking, the University of Duisburg-Essen is located between the 201st and 250th place (World University Ranking, 2018). It is also a quite young university, since the University of Duisburg-Essen is a fusion between the University of Duisburg and the University of Essen and was only established in 2003 (World University Ranking, 2018). Furthermore, there is no tuition fee to pay for following an educational course at the university, however, every student has to pay a semester contribution, which differs for each course and each university (DAAD, 2017).

The University of Cambridge, United Kingdom, has created a diversity strategy aiming at integrating the diversity of society into their institution. Their strategy includes a five year plan, which outlines the work that will be done over the next five years, by staff and students to create an environment in which staff and students perform at their best (University of Cambridge, 2016). The five objectives stated by the university are: “1) to identify opportunities and barriers related to recruitment, progression, and management of a diverse body of staff, and achieve greater diversity at senior levels of the organisation; 2) to tackle gender inequality, addressing particular barriers faced by women in

academia, supporting the career progression of academic, research and professional women staff, and taking action to close the gender pay gap; 3) to address disadvantage in student learning and attainment and issues in student satisfaction in relation to the protected characteristics; 4) to ensure an environment for work and study that is inter-culturally inclusive, supportive of student and staff parents and carers, encourages authenticity and upholds the dignity and respect of all, and; 5) to increase engagement in equality, diversity and inclusive best practice across the collegiate university through participation in training, learning opportunities, joint working and shared objectives” (University of Cambridge, 2016, p. 6-7).

The University of Cambridge is in many characteristics different to the University of Duisburg-Essen. The University of Cambridge is relatively small compared to the University of Duisburg-Essen with 18,389 students. The percentage of international students is 35%, which is higher than the percentage of Duisburg-Essen, but also in terms of absolute numbers. On the University World Ranking the University of Cambridge is currently at the second place, with only the University of Oxford being scored better (World University Ranking, 2018). The University of Cambridge was founded in 1209 and that makes it one of the oldest universities in the world. Furthermore, each student from Great-Britain needs to pay a standard fee for all courses, 9,250 £/per year for students starting their study in 2017-18 (University of Cambridge, 2018). The tuition fee for international students differ for each course, starting at 20,157 £/per year for Bachelor programmes (University of Cambridge, 2018).

4.2.2. Quantitative analysis based on time series of student population data

The interrupted time series will be used to examine if the diversity in the student populations of both universities has increased, decreased or stayed equal after the implementation of a diversity strategy. For the interrupted time series, data has been gathered on the student population of the selected universities. The University of Cambridge has detailed data on the students applying and accepted in to their institution. This data includes a measurement of the socio-economic background of a student, the POLAR classification. The data of this classification is being used in the interrupted time series for the University of Cambridge. Detailed data on the students enrolling for the University of Duisburg-Essen is not available, due to privacy reasons. However, the University of Duisburg-Essen has been collecting data on the socio-economic background of first semester students via a questionnaire. The data collected in this questionnaire is used as data for the interrupted time series in this research. The risk of this data method is that it might be incomplete or has false data, or that there is a third variable that has an influence on the relationship – independent variable socio-economic background and the dependent variable access to higher education. The risk is higher with the data for the University of Duisburg-Essen since this data only represents a proportion of the first year student population. The proportion of the student population might not be representative of the whole first semester student population.

4.2.3. Analysis of policy documents

The strategies and other diversity instruments from both institutions were analysed with an emphasis on the development of functions to create the possibility for students from diverse backgrounds to access the institution. The strategies and instruments were analysed with regards to the framework, that was established via the literature review presented in the theory part. The strategies and the findings coming from the analysis of both institutional strategies, were compared to the other. The risk to this research method is not including all relevant theories and concepts in the literature review, which forms the basis of the framework used in the document analysis.

4.2.3.1. Literature review

As mentioned before, the diversity strategies and instruments with regards to managing diversity were analysed by an earlier established framework, which was based on a document analysis. For this document analysis, literature, in the form of articles and books, had to be found. This literature was searched via literature databases, for example Google Scholar, Scopus and Web of Science. Key words in the search for literature include ‘diversity strategy’, ‘access to higher education’, ‘higher education’, ‘socio-economic factors’, ‘institutional characteristics’ and ‘management of diversity’. The focus when reading the articles was on the main argument(s) of the author(s), if the author(s) had convincing evidence to support their argument(s) and conclusion.

To assess the ‘quality and relevance’ of the literature used for this thesis, the selected publications were examined with relation to relevance, quality and the year the article was published. The first factor is relevance. The relevance of the article is verified by if the article has a topic that is related to the thesis. The topics include the aforementioned key words used in the literature search. A further important factor is quality. Verification of the quality of the articles was done by examining which magazine published an article and the number of citations of the article. If the article was published in a leading journal – established and reputable publishing house, the editorial board includes members from established universities worldwide, the journal is published constituent and the impact of the journal – the article is of better quality. Furthermore, if the article has been cited by many other authors, it would suggest a better quality of article. A third factor of importance in the selection of an article was the year of publication. The more recent an article was, the higher the chance was that the information, results or data from this article were still valid now. The preferred goal was to have mostly articles which were published in 2010 or later.

4.2.4. Interviews

The interviews were semi-structured, providing for the opportunity to ask follow-up questions on discussed topics and clarification of given answers. During the interview the employee of the

University of Cambridge was asked open end questions with regards to challenges faced when managing diversity, achievements and effectiveness of the diversity strategy / instruments and creation of the strategy and instruments in relation to diversity management. An employee of the organisation ArbeiterKind.de, which cooperates with the University of Duisburg-Essen, but mostly supports students to access the University of Duisburg-Essen, was asked open end questions in relation to the cooperation between their organisation and the university, their work, challenges faced by their organisation and students from a disadvantage background, and their achievements so far. The risk with an interview is that the interviewee misinterprets or misunderstands the question and will answer differently than expected. To counter this risk, the participant can ask questions regarding the interview questions and the research overall, and if the interviewee does not answer the question, the interviewer can ask in more detail the question again. The interview questions for the supporting organisation of the University of Duisburg-Essen are in English and German, in case the English questions would be unclear (Appendix).

4.2.4.1. Participants

Interviews were conducted with a person involved in the diversity management at the University of Cambridge and with an employee of the organisation ArbeiterKind.de. As an interview with at least one employee of each university and with one employee of a supporting organisation for both universities, were planned, employees of the Equality and Diversity department of the University of Cambridge and employees of the Diversity-Portal of the University of Duisburg-Essen were approached via an email in which the purpose of the thesis was explained and in which they were kindly asked to participate in an interview. The organisation HE+ was contacted as supporting organisation of the University of Cambridge, and ArbeiterKind.de was contacted with regards to their cooperation and support of students of the University of Duisburg-Essen. The interview with regards to the diversity management of the University of Cambridge was held via Skype, whereas the interview for the University of Duisburg-Essen was a face-to-face interview at a location on the campus of the university.

4.2.5. Conclusions and policy recommendations

From the results coming from the analysis of the time series analysis of data on the student population, the analysis of the diversity strategies and instruments and the interviews conclusions are drawn. The conclusions will discuss the necessary findings to answer the main question and the three sub-questions. First the sub-questions are being discussed, followed by the main question. The conclusions of the sub-questions and the main question are translated into policy recommendations.

4.2.6. Limitations

A limitation to this thesis with regards to the time series is that the data available differ for the universities studied. The University of Duisburg-Essen does not have as specific data with regards to the student population as the University of Cambridge. Statistical data with regards to the total number of first year students is available for the University of Duisburg-Essen, but data for specific categories of students, for example student from a disadvantaged background, or ethnicity is not available for total numbers. This limitation is due to the strict privacy regulations in Germany, as mentioned in the national policy part of this thesis.

The data which is available for the University of Duisburg-Essen is statistical data collected via a questionnaire under first semester students by the UDE Panel. Hereby also data is available for some specific categories, such as migration background and way of financing their study. As mentioned before, the consequence of using this data in the statistical analysis might be that the proportion of the student population participating in the questionnaire is not representative for the student population as a whole. Nonetheless, the approximate number of students with a certain characteristic for the whole student population was calculated and used in the analysis. However, the conclusions drawn from the statistical analysis from the data of the University of Duisburg-Essen still can maybe not be used to draw a conclusion for the whole student population of the institution.

A limitation to the statistical analysis is the way of measuring the socio-economic background. The different cases under review in the thesis, use different statistical measures to monitor the socio-economic background of their students. Whereas the University of Cambridge has only one measurement, the University of Duisburg-Essen has multiple measures to monitor the socio-economic background. The results might be different if one would have the same one measurement or multiple measures at both universities.

With regards to the literature review, the different literature used to create a framework for the document analysis, all have different research methodologies and often have contrasting results. In this thesis the focus is on the results, arguments and conclusions of the literature, hereby not taking into account the differences in research in the articles. Therefore, it might be true that if a same research had been done by all the selected articles, the outcomes of these articles might be different, but also the results and conclusion of this thesis.

As mentioned before, four interviews were planned for the thesis. However, an interview with the HE+ platform was not conducted, because the platform was not willing to participate. According to the HE+ platform all the necessary data needed for this thesis could be found on their website and the website from the University of Cambridge. Furthermore, an interview with an employee of the University of Duisburg-Essen was also not done. Unfortunately, due to a busy schedule in the second

semester of the academic year, there was no time for any of the employees to participate in an interview.

4.3. Theoretical framework and the use of the research methods

The variable ‘conditions’ is mainly being analysed by asking questions in the interviews with the expert of the University of Cambridge and the employee of ArbeiterKind.de. In the interviews examples of questions with regards to this variable are ‘Did all the policies implemented work, or were there policies that did not have the wanted effect / result?’ (Appendix, 10.1) and ‘Do all the steps taken to help disadvantage students by ArbeiterKind.de help and have the wanted result or are there also steps/instruments that do not work?’ (Appendix, 10.2), with the follow-up question ‘Why policies/steps did have or did not have the wanted effect?’. ‘Conditions’ is also analysed by the analysis of the diversity strategies and diversity instruments of both universities, focussing on the monitoring and evaluating measurements implemented, the creation of a communication network and access to expertise. The variable of ‘diversity strategy of an educational institution’ is examined via an analysis of the strategy papers of the selected universities and other instruments with regards to the management of diversity at the institutions. The documents are analysed in accordance to the theoretical framework established in the theory section.

The variable of ‘socio-economic factors’ include socio-economic factors coming forward in the interviews with the university and supporting organisation, and socio-economic factors coming forward from the diversity strategies of the institutions under review. In the case of the University of Cambridge the measurement for socio-economic factors to which their data is collected and which is mentioned in their diversity strategy is the POLAR classification. The POLAR classification divides local areas in five categories, depending on how high the proportion of 18 or 19 years enrolling in higher education is, but this will be explained in more detail in the next section of this chapter. For the University of Duisburg-Essen there is not one specific measurement. There is not a clear definition to which they measure the socio-economic status of their applying and accepted students. They measure multiple factors of a students’ background. Questions with regards to the socio-economic factors are also asked in the interviews, via for example the question ‘What is diversity for the University of?’, with a follow-up question with regards to the mentioned socio-economic factor(s). Furthermore, as it is one of the expected factors to have an influence on the access to higher education for students, it is also a factor which is taken into account in the statistical analysis. For the University of Duisburg-Essen a few of the measurements of a students’ background are combined to measure the socio-economic background of a student at the University of Duisburg-Essen in the statistical analysis of this thesis, as will be explained in the next section of this chapter. The POLAR classification is also used for the statistical analysis of the University of Cambridge.

Just as with the variable of ‘socio-economic factors’, the variable of ‘perception of characteristics of a higher education institution’ is measured by asking questions with regards to the variable in the interviews with experts. The variable ‘perception of characteristics of a higher education institution’ cannot be measured in a statistical analysis as is possible with the socio-economic factors. Therefore, the main examination of this variable is done via the interviews, and the analysis of the strategy documents, to see if the perceptions of the students are seen as a challenge and/or influence to the access to higher education. The ‘access to higher education’ is measured via the analysis of enrolment numbers of students to the institutions under review, but as mentioned before, this is done in regards to socio-economic characteristics of a student.

4.4. Operationalisation

4.4.1. Qualitative research

As mentioned before the variables have the following description:

Conditions: circumstances which create an environment in which management of diversity functions at its best, such as enough time to learn, meet, process, monitor evaluate and refine the instruments for the management of diversity, a well structured communication network, a climate of trust and openness, supportive leadership, and access to expertise to support individual and organisational learning.

Diversity strategy of an educational institution: policy instruments, practices and/or ideas of an institution to integrate diversity in the institution combined in a written document.

Socio-economic factors: factors related to or concerned with the interaction of social and economic factors, for example how a student finances their study, or if a student has a migration background, or their living environment.

Perception of characteristics of a higher education institution: perception of students with regards to characteristics of an institution such as composition, size, type of institution, reputation, amount of tuition fee that needs to be paid, and the way of recruitment of prospective students.

Access to higher education: the enrolment of students to higher education, by various background characteristics.

The analysis of the interview questions will be done in according with codes developed in regards to the five variables and their description. The codes used are as follows:

- Effect of socio-economic factors

- Effect of perception of characteristics of a higher education institution
- Other factors influences access to higher education
- Diversity strategy
 - o Diversity strategy: socio-economic
 - o Diversity strategy: institutional
 - o Diversity strategy: other
- Other instruments
- Conditions
- National policy
- Definition of diversity
 - o Definition of diversity: individual characteristics
 - o Definition of diversity: socio-economic
 - o Definition of diversity: other
- Information of the institution / organisation
 - o Establishment
 - o Others

4.4.2. [Quantitative research](#)

For the interrupted time series the variables will be measured as follows:

At the moment, to monitor the socio-economic diversity of its student population, the University of Cambridge monitors the POLAR classification of each student applying and accepted to their institution. The POLAR classification explores how likely young people in a specific area are to participate in higher education across the United Kingdom. The classification is made via the give home postcode of each student. The POLAR classification divides local areas in five groups, depending on how high the proportion of 18 year olds is who enter higher education at the age of 18 or 19 years old. Quintile 1 includes the areas with the lowest proportion of participating young people in higher education. Quintile 5 includes areas in which the proportion of participating young people in higher education is the highest. Quintile 2, 3 and 4 each have an ascending number of young people participating in higher education. If an applying or accepted student does not provide information with regards to their POLAR classification the student fits in the category 'Unknown'. In this way all the applying and accepted students are categorised in a socio-economic way.

The first data available on the socio-economic status of students applying and being accepted to the University of Cambridge is from 2002. Data on the applying and accepted students is not according to the POLAR classification from the year 2002 until 2008. In this period, the division of the socio-economic status of the students is made via the National Statistical Socio-Economic Classification (NS-SEC) and categorises the applying and accepted students into seven groups regarding the

occupational status of their parents: 1) higher managerial and professional occupations; 2) intermediate occupations; 3) lower managerial and professional occupations; 4) lower supervisory and technical occupations; 5) routine occupations; 6) semi-routine occupations, and; 7) small employers and own account workers. Students who did not provide an indication of their socio-economic background fit in the eight category ‘unknown’.

To make the two used measurements equivalent, the seven categories of the NS-SEC measurement are merged in a way to fit the POLAR classification. This meant that the NS-SEC category ‘higher managerial and professional occupations’ is equal to ‘Quintile 5’ of the POLAR classification and the NS-SEC categories ‘lower managerial and professional occupations’ and ‘lower supervisory and technical occupations’ is equal to POLAR classification’s ‘Quintile 4’. The third Quintile of POLAR is equal to the category ‘intermediate occupations’ of NS-SEC and the categories ‘routine occupations’ and ‘semi-routine occupations’ is equal to ‘Quintile 2’ of the POLAR classification. The lowest category of POLAR, ‘Quintile 1’, is equal to the category of ‘small employers and own account workers’ of NS-SEC. In the years between the two measurements, 2009-2010, no data is available with regards to the socio-economic status of the applying and accepted students to the University of Cambridge.

The University of Duisburg-Essen measures the socio-economic background of its students in a different way than the University of Cambridge. The University of Duisburg-Essen does not have a specific measurement of the socio-economic background of its first semester students. They do have multiple measurements which they use to measure different aspects of a student’s background. For the first four academic years of which data is available, 2012/2013 until 2015/2016, the measurements differ from the measurements of the final academic year of which data is available, 2016/2017 (Figure 9 and Figure 10). The measures included in the interrupted time series of the University of Duisburg-Essen for the first four academic years are gender, age, academic background, migration background, German citizenship, way of financing study (multiple answers possible) and, main source of finance for the study (only one possible answer).

The measurement *gender* is the most simple measure in this time series of the University of Duisburg-Essen, since it includes two categories: men and women. *Age* is categorised into five groups: 1) until 17 years (bis 17 Jahre); 2) 18-25 years (18-25 Jahre); 3) 26-30 years (26-30 Jahre); 4) 31-35 years (31-35 Jahre), and; 5) older than 35 years (über 35 Jahre). The two categories included in the measurement of *academic background*, which measures the highest education qualification obtained by one or two of the parents, are: no academic background (kein akademische Hintergrund) and academic background (akademische Hintergrund). The measurement of *migration background* includes four categories: 1) no migration background (kein Migrationshintergrund); 2) migration background

(Migrationshintergrund); 3) first generation (1. Generation), and; 4) second generation (2. Generation). Hereby the second category – migration background – is the total of the third and fourth categories – first and second generation. Just as with the measure of *gender* and *academic background* the measurement of *German citizenship* includes only two groups: no German citizenship (kein deutsche Staatsangehörigkeit) and German citizenship (deutsche Staatsangehörigkeit). The measurements of *way of financing study* (multiple answers possible) and *main source of finance for the study* (only one possible answer) included the same nine (ten for the academic year of 2015/2016) categories: 1) own merits during the study (Eigener Verdienst während der Verlesungszeit); 2) own merits before the start of the study (Eigener Verdienst während der kommenden vorlesungsfreien Zeit); 3) own money saved up before the start of the study (Eigene Mittel, vor dem Studium erworben/angespart); 4) donation from parents or family (Zuwendung von Eltern/Verwandten); 5) donation from partner (Zuwendung von Partner/in); 6) assistance of BAföG (Ausbildungsförderung nach dem BAföG); 7) loan (Bildungskredit/Studienkredit); 8) scholarship (Stipendium); 9; others (Sonstiges), and 10) orphans money (Waisengeld) (only included in the academic year of 2015/2016). The number of students for each measurement differs, because some students did not answer the question with regards to this measurement.

For the academic year of 2016/2017 similar measurements to the measurements of previous academic years were included in the interrupted time series. The measurements included in the time series for the academic year of 2016/2017 are: *gender*, *age*, *academic background*, *migration background* and *main source of finance of the study*. The measurement *gender* is the only measurement which is exactly the same as the measurement of the previous four years. However, the other four measurements changed for this academic year. The measurement *age* was decreased to only include three categories: 1) younger than 20 years (< 20 Jahre); 2) 20-22 years (20-22 Jahre), and; 3) older than 22 years (> 22 Jahre). The measurement of *academic background* changed to four categories: 1) low academic background (niedrig Bildungshintergrund); 2) middle academic background (mittel Bildungshintergrund); 3) significant academic background (gehoben Bildungshintergrund), and; 4) high academic background (hoch Bildungshintergrund). *Migration background* was decreased to only two categories: no academic background and an academic background, removing the categories of first and second generation. The measurement of *main source of finance of the study* was limited to only three groups: 1) own money (eigene Hauptfinanzierungsquelle); 2) third party (dritte Hauptfinanzierungsquelle), and; 3) loan (anleihe Hauptfinanzierungsquelle).

The main difference between the data of the academic years 2012/2013, 2013/2014, 2014/2015, 2015/2016 and the data for the academic year 2016/2017 is the availability of data which combines two measurements. For example combination of the measurement of *migration background* and *main source of finance for the study*. This provides more measurements than the five measurements *age*,

gender, migration background, academic background and main source of finance for the study. An example of such a measurement is measuring how many of the students with a migration background have a high academic background. This kind of measurement can be made from four of the five measurements, only the measurement of *main source of finance of the study* does not have data on how many of these students fit in to the categories of the other four measurements.

5. Data / Documents

The collected data consist of qualitative data, including diversity strategies of both institutions, policies of both universities and national policies with regards to education, and interview transcripts. Furthermore, quantitative data have been collected, including statistical data with regards to student population of both universities.

The data collected until this moment will answer the main question of this thesis *'How do the diversity management strategies at the University of Duisburg-Essen, Germany, and the University of Cambridge, United Kingdom, differ with regards to affecting the influences of socio-economic factors on access to higher education?'*. However, each of the collected documents or data helps answering the question in a different way. The diversity strategies and policies of both universities inform this thesis about the current situation, including the goals of an institution, benchmarks set for the future, outreach activities and support provided for students with a disadvantaged background. The involved actors within an institution are also described in these documents.

The statistical data on the student population provide an overview of the situation now, but also from earlier years, including before steps were taken in regards to diversity management. This data can be plotted and changes in the population can be found, but also future statistics can be predicted. The transcripts of interviews reflect a professional point of view on the diversity management of an institution, and hereby informing the thesis with more information.

6. Analyses

This chapter will discuss the results of the research. This chapter includes an analysis per institution and a comparative analysis of the results coming from the analyses of both institutions. The analyses of both institutions and the comparative analysis will be done in line with the presented theoretical framework, but will start with the dependent variable, and then analyse the independent variables. First, the University of Duisburg-Essen will be analysed, followed by the analysis of the University of Cambridge and ending with the comparative analysis.

6.1. *University of Duisburg-Essen*

6.1.1. Access to higher education

The University of Duisburg-Essen monitors the socio-economic background of its students via multiple characteristics of a student, including gender, age, academic background, migration background, German nationality, ways of financing study and main source of finance of study. Data of the University of Duisburg-Essen (Figure 47) shows a total number of first year students that changes every year. First year numbers are equal to one and other for the academic years 2012/2013, 2014/2015 and 2015/2016, but also the academic years 2013/2014 and 2016/2017 have equivalent first year students. However, between these two groups of academic years with equivalent numbers of first year students there is a difference of almost 2000 students. Furthermore, the percentage of students that responded to the email with the questionnaire is low, with only 2016/2017 as a reasonable percentage of response with 36.2% (Figure 48). However, for this thesis working with this data and calculating with these numbers is seen as valid, otherwise a statistical analysis will not be possible.

Starting with an analysis of the number of students at the University of Duisburg-Essen regarding their academic background or educational background (Figure 13, 19 and 20), the data shows that the number and percentage of students without an academic background decreases in the first three academic years, but increases in the academic year 2015/2016. For the academic year of 2016/2017, the number of students with a low or middle academic background is also higher than the number of students with a significant or high educational background (Figure 45). Throughout the years it is shown that the number of female students at the University of Duisburg-Essen is higher than the male

students (Figure 11). As a result, in all four categories of educational background, the number of females is higher than the number of men in these categories for 2016/2017 (Figure 36). This is also the case if one were to analyse it from the point of measurement *gender* (Figure 28). However, in this case data of the percentage show that the percentage of men participating in the categories significant and high educational background is higher than the percentage of women (Ebert et al., 2017).

In the categories of educational background are most of the students younger than 20 years old (Figure 36), but this is not remarkable since most of the first year students are in the age category of 'younger than 20 years old' (Figure 31). Something that is notable is the fact that in the category 'low educational background', the number of students with a migration background is significantly higher than students without a migration background, whereas for the other three categories the number of student with a migration background is lower than the number of students without a migration background (Figure 37). The difference in the 'low educational background' category between students with and without a migration background is best reflected in the percentage, 76% with migration background and 245 without a migration background (Ebert et al., 2017). In the other categories is the percentage of students without a migration background more than 60 (Ebert et al., 2017). When then analysing the educational background in relation with the main source of finance of the study that the number of students with a low educational background most often have a loan to finance their study, however, the difference with the two other categories – own money and third party – is not big. In the other categories the highest number of students fall in the category 'third party', and the number of students in the category 'loan' is the lowest in all three (Figure 38).

Around 40 percent of the first year student population has a migration background, 17 percent of these is male and the other 23 percent is female for the academic year of 2016/2017 (Figure 21 and 22). However, this number has only recently risen, having decreased in the first three years of which data is available (Figure 14). As already mentioned the number of female students is higher than the number of male students at the university, creating the effect that for most measures, that there are more females in categories than male. So this is also the case for the variable migration background (Figure 41). For both the categories of migration background, most students are younger than 20 years (Figure 42). With regard to the educational background, the number of students with a migration background decreases the higher the educational background is (Figure 41). Students without a migration background are most represented in the middle and significant educational background category, but also have the highest number of students in the 'high educational background' category. These students are least represented in the category 'low educational background', where most students come from a migration background (Figure 41). Most students with a migration and without a migration background pay their study with money of a third party, but where for no migration background

students the second way of financing their study is with own money, for students with a migration background the second way of financing their study is via a loan (Figure 42).

As mentioned before, the number of female first year students is higher than male first year students (Figure 11, 17 and 18). Here as well most of all the female and male students fall in the age categories 'younger than 20 years', again with more female than male (Figure 27). The number of female and male students is the highest in the category 'middle academic background', followed by the category of 'significant academic background' (Figure 28). Remarkable for this variable is that the exact number of male students in the 'high academic background' category is lower than the female number of students, but the percentage of the total is higher for the male as for the female students. For both male and female, the number of students without a migration background is higher than students with a migration background and the difference between the numbers is for each of the gender categories similar (Figure 29). Both male and female students finance their study with the help of a third party, however, there is a difference in the other two categories of 'main source of finance for the study'. Where the category 'third party' is followed by 'loan' in the case of female students, male students often finance with own money their study and least loan money (Figure 30).

In the years 2012-2015, most students were between the ages of 18 and 25, and the other categories had similar numbers of students (Figure 12). For the academic year 2016/2017 the highest number of student fall into the category 'younger than 20 years', and decreases in the following two categories (Figure 17, 18, 44). In the categories 'younger than 20 years' and '20-22 years' the number of females is higher than the number of males. For the category 'older than 22 years' the number of male and female students is equal (Figure 31). For all three categories of the variable age most have a 'middle academic background', followed by a 'significant academic background'. For the categories 'younger than 20 years' and '20-22 years' the number of students in the 'low academic background' category is much higher than the category 'high academic background'. For the age category 'older than 22 years' the aforementioned two categories are almost equal in number of students (figure 32). The number of students without a migration background is higher than the number of students with a migration background in all three categories of the variable age (Figure 33). For students younger than 20 years their study is most often financed by a third party, whereas the other two categories of 'main source of finance of the study' are much lower and very similar to each other for this age category. For the age category '20-22 years' the number of students financed by a third party is still the highest, but the number of students financing their own study increases. For the category with the oldest students, the number of students financing their study is the highest and the other two categories being equal to one and other (Figure 34).

For the first years taken into account in the statistical analysis the number of students with a German nationality were the highest by far, but the percentage showed a decrease of students with a German nationality and an increase in students without a German nationality (Figure 15, 23 and 24). When looking at key characteristics of the University of Duisburg-Essen (Figure 3), the statistics show an increase in people from a low socio-economic background, so the student population has become more diverse in the last few years.

-	2012/2013	2015/2016
% of female students	59,16%	55,85%
% of students older than 26 years	8,00%	9,39%
% of students with a migration background	27,48%	35,84%
% of no academic background students	52,41%	57,33%
% of foreign students	11,50%	17,75%
% of students that loan money	36,30%	35,55%

Figure 3: Summary of key statistics for the University of Duisburg-Essen for the academic years 2012/2013 and 2015/2016

6.1.2. [Conditions](#)

In the diversity strategy of the University of Duisburg-Essen many measures are described with regards to five different subjects discussed in the strategy – studying and teaching; research; personal- and structure development; quality development and empirical foundation, and; cooperation and networking. Most measures describe how in the future steps will be taken to continue the measures taken in this diversity strategy, and just a few describe how the measurements will be evaluated and monitored. According to the diversity strategy, the diversity at the institution will be monitored by the University Duisburg-Essen Panel and data in regards to student and staff population, that still needs to be generated. The university plans to work together with organisations and institutions specialised in diversity management to strengthen their expertise with regards to the management of diversity. All these steps are there to create an environment in which everyone is included.

The employee of a supporting organisation of the University of Duisburg-Essen brings forwards conditions that might decrease the chance of a well-integrated diversity strategy. The employee mentions that a teacher at an university in Germany is on average responsible for 91 students (Interview B, l. 544) and most often a teacher has no idea how to teach so many students and also combine it with his or her job as a researcher (Interview B, l. 552-556). In many cases a teacher only does the teaching part and the practices and help to his or her students is done by the assistant, often a PHD student (Interview B, l. 560-563). An example is given by the employee of a teacher that did not

have the time to grade an exam within eight weeks and because of this students did not have the chance to apply for a Master degree (Interview B, l. 575-578). The students did not feel free to complain, because in their eyes this could lower their chances for a Master degree spot (Interview B, l. 587-596). The employee states that this is as a result of the fact that as “a student you do not have a leverage” (Interview B, l. 647), because still many young people think that it is impossible for them to talk to a professor (Interview B, l. 690-691). Young people feel much lower in the hierarchy than teachers and professors at a higher education institution. They have no idea how to contact teachers and professors, and speak the right language (Interview B, l. 699-701). Again an example was given, this time of a master degree student that wanted to do a PhD, but did not have an idea how to approach the professor to ask if it might be possible to do his or her PhD under the supervision of this professor (Interview B, l. 736-740). Earlier in the interview the employee also stated that most students do not know that there are professionals at the university they can contact and ask for help (Interview B, l. 400-402). However, when students and young people have collected all their courage and contact these professionals, they most often will be thrown around in a circle between professionals, all telling them they are not the right person to contact (Interview B, l. 404-408). Students will be left with the feeling never to have found the right person to talk (Interview B, l. 419-420). These statements would indicate a lack of trust and openness in the climate of the university and an unstructured communication network at the University of Duisburg-Essen.

6.1.3. Diversity Strategy of the University of Duisburg-Essen

The diversity strategy has been split up in three parts – profile and starting point; strategic goal and guidelines for the Diversity Management of the University of Duisburg-Essen, and; strategic action areas in central areas. The third part – strategic action areas in central areas – is again split up in five parts: studying and teaching; research; personal- and structure development; quality development and empirical foundation, and; cooperation and networking. For each of these five parts it is first explained why the area is included and what the plans in general are for that area. This general description is followed by a more specific description of measurements taken for that area, splitting the area even further up. The University of Duisburg-Essen does have a diversity network, as also described in the diversity strategy, in which the supporting and cooperating organisation ArbeiterKind.de is included (Interview B, l. 458). The cooperation comes from both sides. ArbeiterKind.de helps as much students as possible – most of them contacting the organisation themselves – by helping them finding the right information, talking with them about their problems and their own experiences at higher education. However, when the university suspects someone having problems which come from their surrounding environment, they could also contact the organisation or recommend the organisation to the student (Interview B, l. 451-454).

According to the employee of ArbeiterKind.de it would be better if a general diversity strategy would be obligatory for all higher education institutions, but the employee also states that the division of pupils and students happens already before the entering of higher education. After four years of school, pupils will get divided up, depending on their grades (Interview B, l. 497-499). The diversity management should happen in earlier education stages, but also the higher education institution should still have an obligatory diversity strategy. However, as the University of Duisburg-Essen is selected for the reason that they had a diversity strategy, the University is not affected if it would be obligated to have a diversity strategy, only if there are specific obligated subjects to be touched upon in the document and these are not in the document yet.

6.1.4. Perceptions of characteristics of a higher education institution

There is no mention of measures taken to change perception of the higher education institution in the diversity strategy. However, the employee of ArbeiterKind.de tells that there is a problem with the perception some ethnicity groups, for example Turkish, have with regards to academics in general. They have no idea about the chances of someone with an academic degree. In their perception an academic will drive a taxi or clean toilets after finishing their degree. Their fear is to be unemployed and the Arbeitsagentur coming and finding a job for them (Interview B, l. 309-318). If an academic degree will be followed by a student from these ethnic groups, there is still the perception that there are good and bad fields of study. Fields of study where one has promising work possibilities in the future, a good financial prospective and will be better off than their parents are seen as good fields of study, for example a technical study. Sociology, history, or philosophy are studies where the future is seen as uncertain by these groups, and are seen as the bad fields of study (Interview B, l. 141-154). Students, but especially their families want to have some certainties for the future. The perception might not be especially towards the University of Duisburg-Essen, but as the university is a higher education institutions, the perception includes the University of Duisburg-Essen.

Then there is also the problem of creatively chosen degree names by the universities. Sometimes a course is exactly what a student is looking for, but because the name gives a whole other idea of the course, a student is misled and does not apply (Interview B, l. 367-373). Furthermore, the public does have differences in the perception of applied science university and other universities. Applied science universities were called Fachhochschule earlier, and they were the first institutions where you studied for a job, but then evolved into universities of applied sciences (Interview B, l. 473-482). These applied sciences universities are still more seen as Fachhochschule, whereas the other universities are really seen as universities (Interview B, l. 484-487).

6.1.5. Socio-economic factors

The employee of ArbeiterKind.de mentioned that in Germany the family background is decisive whether or not you have a chance of going to a higher education institution. The employee found out

that “if your parents have already studied, they will not be happy if you would decide not to study at all. And if your parents have not studied, they will not be happy if you would decide to go and study.” (Interview B, l. 13-15). It is not only about what a person wants him- or herself, “but what the people around them say and what they have experienced or did not experience” (Interview B, l. 16-17). The background of a person includes the financial background of a family. The employee tells about a study they did in which the salaries of working people was compared with the salary of their parents, grand-parents and their great-grand-parents. Just as with the findings made by the employee, the study showed that if a great-grand-parent did well, the grand-parents and the parents did well also, the children will also do well (Interview B, l. 27-30). According to the study it would take three or more generation to see change, in the financial situation, habits and background (Interview B, l. 31-32).

The most questions asked by students to employees of ArbeiterKind.de are related to finance. If there is no experience from people going to university before them, students and their family are often more concerned about the obtainment of money to finance the study. However, it is most of the time not only the money to finance the study, but also their lives, especially when a student needs to move (Interview B, l. 109-115). The financial background is one of three influencing access to higher education, the other two being the aforementioned family background, and whether one has had the chance to get to know the German education system (Interview B, l. 129-133). One could then say that the lack of information is what brings forward these issues. However, the employee explains that the lack of information is what you will most often see at first, but that a lot more of the problems go deeper than just the surface (Interview B, l. 123-125).

The biggest fear of parents is that they will leave their children with a debt. People are frightened of getting a loan and owing someone or the state money. Parents often think that when their child gets a BAföG loan, they will need to pay of their debt their entire work life (Interview B, l. 165-167). Another aspect of a BAföG loan that is problematic for students and their parents with a low socio-economic background is when applying for such a loan, parents have to be very open about their financial situation, including their income and taxes (Interview B, l. 169-172). The state would know everything about their financial situation and most people are not very fond of giving such detailed information about their financial situation, especially if their financial situation is not so good. The shame of their situation is too big for them to even consider applying for a loan (Interview B, l. 179-181). They do not have the information or do not know where to go to receive the right information about the BAföG, for example info which will tell them that the debt will not be more than 10,000 Euros at the end of their study, and that they will have many years after their graduating to pay back their debt (Interview B, l. 184-196). Now the parents picture the future of their child with a student debt of more the 25,000 Euros and no time to pay back the money (Interview B, l. 196-198).

From the interview a few other influences on the enrolment to the University of Duisburg-Essen are revealed. Students often have problems with starting their courses. They do not feel at home at the university, have problems organising themselves, maybe have additional financial problems (Interview B, l. 381-383) and have no idea what the lectures are about (Interview B, l. 701-702). The biggest problem is that they have nobody to talk to or are too ashamed to talk to someone about these problems and feel very lonely. They are under the impression that everyone knows better than them, and they are the only ones with questions. They might think they have made the wrong decision to go and study, because family and friends might have already questioned them and thought they did not belong there (Interview B, l. 385-389). You need to have very high motivation to face all the backlashes and sometimes a person to tell you that you are not the only one with these problems (Interview B, l. 682-686).

A next problem faced by many students, but also prospective students is the language at higher education institution. As many of the students are first generation students there is no experience in the family with regards the life of a student. Many of the information for students and prospective students is written in an academic way. Especially prospective students have no idea what is written and will need someone to explain the academic text (Interview B, l. 377-380). For students it is more often the communication with friends and family that changes, because when starting your study your language changes. Students will come home and explain to their parents what they are doing, but they will not understand what their child is talking about. Both speak the same language, but use of the language is different (Interview B, l. 389-392). A gap raises between the parents and the child, and both will be under the impression that they are growing apart. All the changes needed to be made are factors that scare off pupils from applying to a higher education institution, including the University of Duisburg-Essen.

6.1.6. Conclusion

The University of Duisburg-Essen has since the fusion of the University of Duisburg and the University of Essen put forward the ambition to have a more diverse and equal population. The diversity strategy created in 2016 is a general document setting out the guidelines, measures and targets of the institution for the upcoming years. Conditions are created to good evaluate and monitor process in the population, but there are also conditions – a climate with no trust and openness, and no structured communication network – that work against a well implemented diversity strategy. The financial background and the family background of a students are seen as two important factors influencing the future educational path of a student, as changing patterns as they are now, takes time and effort by the student and their family. However, also the perception of some ethnical groups in society has an effect on whether or not a pupil will apply to a higher education institution, as the prospect for someone with an academic degree is seen as low. The effort put in by the university and

the supporting organisation do have a result, as students with characteristics of a disadvantaged background have increased over the years.

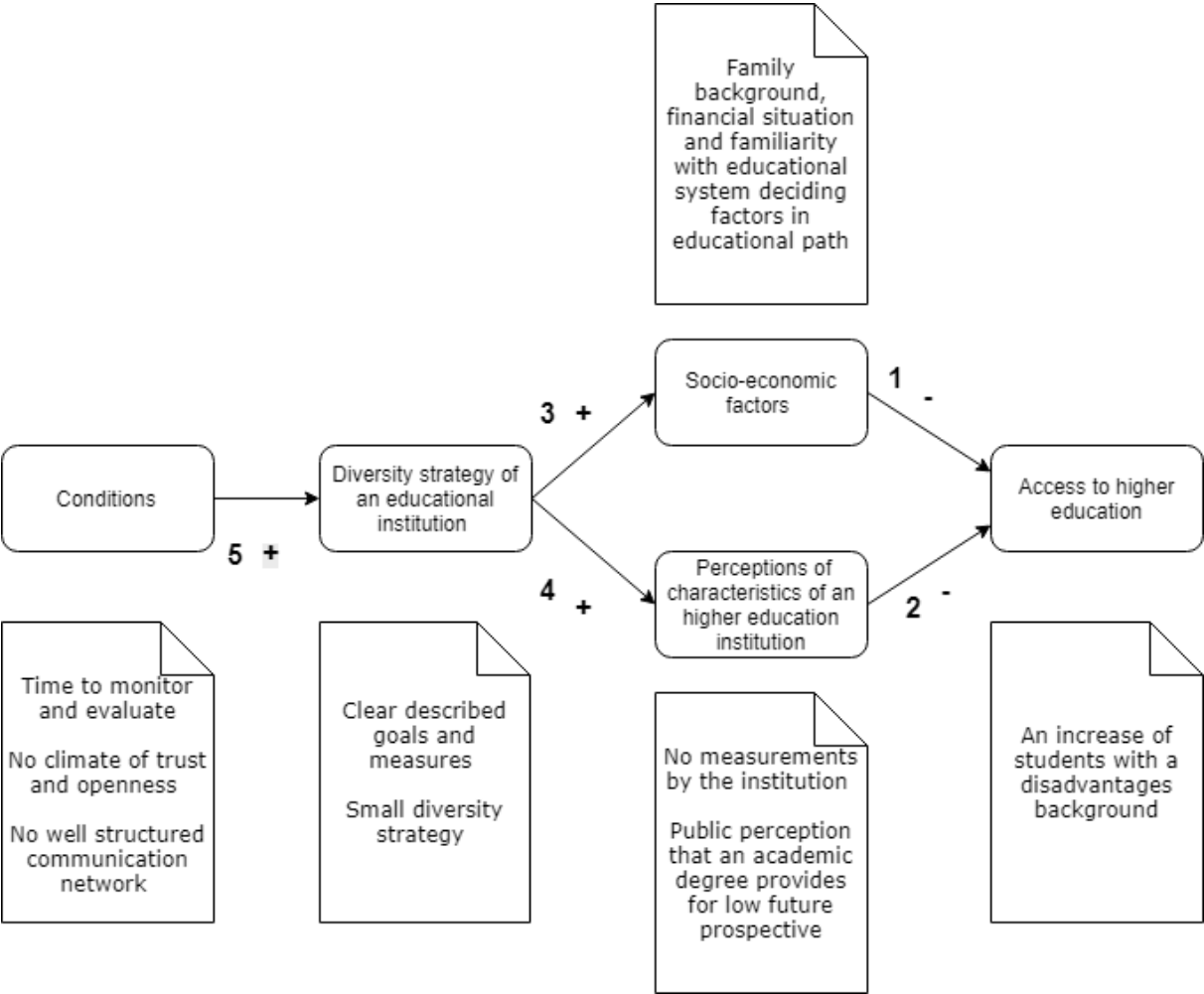


Figure 4: University of Duisburg-Essen framework

6.2. University of Cambridge

As mentioned in all the access agreements (University of Cambridge, 2006, p.6; University of Cambridge; 2010, p.5; University of Cambridge, 2012, p. 6; University of Cambridge; 2013; p. 6; University of Cambridge, 2014, p.7; University of Cambridge, 2015, p. 7; University of Cambridge, 2016, p. 8; University of Cambridge, 2017, p. 12) results of measures taken by the university will not be reflected in the composition of the student population for some years. Since the first access agreement for 2006-2010 and the first diversity strategy 2016-2021 many different measures, outreach activities and instruments have been created to manage the diversity in the population of the University of Cambridge – student population and staff population. At the moment, to monitor the socio-economic diversity of its student population, the university monitors the POLAR classification of each student applying and accepted to their institution.

6.2.1. Access to higher education

The analysis of the student population of the University of Cambridge is done with the exact numbers (Figure 49, 50, 54 and 55) and percentages (Figure 5, 51, 52 and 53). In the years 2002 until 2008, the exact numbers on the applicants show an increase in the years 2003, 2004 and 2005, but in the end stay about the same in 2002 and 2008 with a difference of only 200 applying students. However, where the total number stays the same or even increases, the number of applicants in each quintile decreases in this period of time, except for the category ‘Quintile 2’ and ‘unknown’, where the category ‘unknown’ increases with almost 50%. In the period 2011 until 2017, the number of total application increases with almost 2000 students, however, the differences between the total number of applications of 2008 and 2010 is decrease of 1200 students. All POLAR quintiles increase in this period of time, not equal to each other, but an increase is visible in each quintile. The exact number of applicants coming from the two highest quintiles is much higher than the lowest three quintiles, especially the number of applications from ‘Quintile 5’ is high in the last couple of years. Looking at the percentage of ‘Quintile 5’ applicants of the total amount of applications the percentages increases, with for the last seven years 45% or more of the applicants coming from the highest quintile. Leading one to believe that the diversity in the applicants has decreased since the implementation of diversity strategy and the access agreements.

Year	% Q5 of total	% Q4 of total	% Q3 of total	% Q2 of total	% Q1 of total	% Qun of total
2002	38,81%	32,19%	11,11%	7,04%	4,11%	6,73%
2017	47,32%	23,41%	14,66%	8,39%	5,18%	1,04%

Figure 5: Statistics on the application numbers for the University of Cambridge for the years 2002 and 2017

Whereas the total number of applicants to the University of Cambridge has been increasing over the past years, the total number of acceptances to the institution is decreasing in the same period of 2002-2017 (Figure 6). The numbers of applicants in quintiles 1, 2, and 3 staying equivalent if comparing the beginning of the period 2002-2017 and the end of this period. However, taking into account the fact that the number of acceptances has decreased in this period of time, the percentage of the quintiles 1, 2 and 3 increased, because their part of the total number of acceptances increases (Figure 52). The number of acceptances of Quintile 4 decreases in exact numbers and in percentages of the total number of acceptances, whereas the exact numbers and percentages of Quintile 5 increase in both cases (Figure 50 and 52).

Year	%Q5 of total	%Q4 of total	%Q3 of total	%Q2 of total	%Q1 of total	%Qun of total
2002	42,25%	32,59%	10,55%	5,60%	3,93%	5,08%
2017	52,37%	23,43%	11,91%	6,85%	4,52%	0,92%

Figure 6: Statistics on the acceptance numbers for the University of Cambridge for the years 2002 and 2017

After comparing the applicants and acceptances individual with each other, a comparison is made between applicants and acceptances. Expecting that the percentage of acceptances are equal to each other for all the quintiles, it is surprising to see that the highest two quintiles are accepted more often than the other three quintiles (Figure 53). The percentage of total acceptances changes for every year and there is not really a line in the percentages (Figure 53).

The numbers of students applying for the University of Cambridge has increased overall and for most of the quintiles, except for Quintile 4 and Quintile unknown (Figure 49). Based on these numbers a conclusion could be drawn that the instruments created, have had a positive effect on the number of students from a disadvantage background applying to the university. However, a negative conclusion can also be drawn. The number of students applying from the lowest three quintiles has increased, however, also the number of students from the highest socio-economic class has increased. When comparing the percentages of applying students from the highest quintile and the lowest two quintiles with each other (Figure 51), the part of the highest quintile in the total number of students applying is increasing more than the two lowest quintiles. Where the percentage of Quintile 5 increased with nine percentage point over the period of 2002-2017, both Quintile 2 and Quintile 1 only increased with one percentage point in this period of time (Figure 5). To conclude from these numbers that the measures taken positively affect the applicants of students from a lower socio-economic background would be possible, but because the number of students from the highest socio-economic background has increased even more and the part of this student category has increased in the total number of applicants it might not have had the wanted affect.

As mentioned before, the total number of acceptances to the institution of Cambridge decreased in the period of 2002-2017. Also the number of Quintile 4 decreased in this period, but the number of Quintile 5 students accepted increased. The numbers of students accepted from Quintile 1, 2, and 3 stays equal, but the number of students accepted of Quintile 1 does have a dip in acceptances in the years 2011-2016. Looking at the percentage of students from each Quintile of the total amount of accepted students, the lowest three quintiles have an increase in percentage, but only an increase of half a percentage point or one and half percentage point. The Quintile 4 percentage decreases with nine percentage point, whereas the Quintile 5 percentage increases with ten percentage point. The percentages show the same picture as the exact numbers of the acceptances. Here just as with the applicants a positive and a negative conclusion can be drawn. The positive conclusion would be that the number and percentage of students from lower socio-economic background has increased, but the negative conclusion would include the fact of the increasing number and percentage of the highest

socio-economic background students. Concluding, just as with the applicants, that the measurements made and create did affect the number of acceptances positively, but the number of students of the highest socio-economic class accepted for the University of Cambridge is still the highest, not creating a more diverse student population.

6.2.2. Conditions

As explained in the national policies part of the thesis, the University of Cambridge has committed itself to the Widening Participation policy of the government of the United Kingdom. As the university is obligated to hand in a Fair Access Agreement to the OFFA, since they charge a tuition fee over £6000, they need to provide an overview of means to review. In the last part of each agreement handed in by the university, an overview of monitoring measures is given, in according to the OFFA guidance. The university states that it will publish admissions statistics publicly on their website. Furthermore, an annual review of application, offer and admission trends will be published, especially with regards to the under-represented groups in society. The interviewed employee of the University of Cambridge affirms that the university has “a lot of procedures which we are always looking at to make sure that they are working as best as they can, because the admission to Cambridge is quite a complex process” (Interview A, l. 252-254). Inter-colleges committees are the departments responsible for the properly working of the procedures of admission in place. Each year the procedures and policies of latest round of applications is checked and made sure it is working as well as they can. If there are things that needs improvement, the committees will have to change them in the next few months, before the next round of applications (Interview A, l.256-260). Furthermore, the system is always improved to make things as clear as possible and that they cannot be misinterpreted either by students or admission tutors (Interview A, l. 260-263). In that sense the admission process is actively monitored over the years.

The outreach activities of the universities will be reviewed by their effectiveness. However, when asking the university employee about the effectiveness of the outreach activities in getting new students to apply, the employee said that it was “very hard to evaluate” (Interview A, l. 102). This because “It is very hard to do this in a sort of scientific evaluative way, because there is essentially no control group” (Interview A, l. 105-106). It would be “unethical” to monitor it in a scientific matter (Interview A, l. 107). However, the university has tried to build in a monitoring system in the outreach programs, but these are very different for each outreach program. Comparing the effectiveness of the different programs is difficult (Interview A, l 121-123).

This does not mean that the university does not try to further monitor outreach activities. Since a couple of years there is a cross university platform called Higher Education Access Tracker: HEAT. It is a big data sharing system used by all universities that work with different sort of students. They can enter details and interventions of their university and in this way there is some data to start evaluating

(Interview A, l. 115-117). However, there are some downsides with this system: 1) it is a relatively new system, so it will probably take some time to get valid evidence from the system (Interview A, l. 117-118); 2) universities using the system are very different from each other, so it might not be the case that data university A, will be the same for university B, and; 3) it does not provide an overview of one university, only from a group of universities. The way of monitoring is well described and explained, but it might not be very effective.

Another factor with regards to variable 'conditions' in the framework is the fact that the percentage of students being interviewed in the accessing process has decreased over the past years. Asking the employee of the university about why the percentage has decreased over the years, the employee explained that within a week and half all the students need to be interviewed. However, there is no physical capacity to interview all applicants (Interview A, l. 217-220). The employee did ensure that all the applicants with the most realistic chance are being interviewed, and that all the other applicants have a fair application, because they have to do tests and exams to measure their educational attainment and their academic profile is examined (Interview A, l. 224-227). Furthermore, the other instruments used to manage diversity at the university are monitored in similar ways as the outreach activities and point mentioned in the Fair Access Agreement of the University of Cambridge (Interview A, l. 241-244).

6.2.3. Diversity strategy of the University of Cambridge

The diversity strategy of the University of Cambridge begins with a foreword of the vice-chancellor in which the commitment of the University of Cambridge to providing the highest quality environment for employment, research and study and the well-being of their staff and students is brought forwards. The commitment to which is referred in the foreword is the commitment of the institution, just as all the other British higher education institutions, to the Widening Participation policy of the British government. This commitment is mostly made with regards to embedding equality and diversity into the environment and population of staff and students. The Equality & Diversity strategy set out the aforementioned five objectives: 1) to identify opportunities and barriers related to recruitment, progression and management of a diverse body of staff, and achieve greater diversity at senior levels of the organisation; 2) to tackle gender inequality, addressing particular barriers faced by women in academia, supporting the career progression of academic research and professional women, staff, and taking action to close the gender pay gap; 3) to address disadvantage in students learning, and attainment and issues in student satisfaction in relation to the protected characteristics; 4) to ensure an environment for work and study that is inter-culturally inclusive, supportive of student and staff parents and carers, encourage authenticity and upholds the dignity and respect of all, and; 5) to increase engagement in equality, diversity and inclusive best practice across the collegiate University through participation in training, learning opportunities, joint working and shared objectives.

Further in the strategy the functioning of the strategy within the institution is explained. Hereby it is explained that different departments within the University of Cambridge carry responsibilities of addressing equality and diversity matters in relation to institutional policies and instruments. Each of these departments has its own responsibilities and should be supported by sub- and working groups in their work. Progress is assessed by a separate group and most committees will regularly report progress and their (future) work. Regarding accessing the University of Cambridge, the Colleges of the institution carry the responsibility. The specific goals and instruments of the Colleges is not described in the Equality & Diversity Strategy, but is in detailed described in the Fair Access Agreements, as such a detailed report is obligated to hand in to the OFFA. The University of Cambridge states in the diversity strategy that the inclusion of a Fair Access Agreement supports the University's mission and ambitions: 1) to remain one of the world-leading universities; 2) to have a significant international presence and local impact; 3) to create the environment, facilities and intellectual excitement to attract the world's best people to Cambridge, and; 5) to engage and energise all those who work and study with the University. All these ambitions fostering the wanted progress in equality, diversity and inclusion of everyone in the staff and student population.

As this thesis is interested in the access to the University of Cambridge, for the variable of 'diversity strategy of an educational institution', a closer look at the Fair Access Agreements of the past years is included. In the past Fair Access Agreements, a paragraph regarding tuition fee, additional access measures, targets and milestones and monitoring and evaluation is always included. In the paragraph "tuition fee", the amount of money charged for a student from the United Kingdom or a country of the European Union for a course year is set, including the exceptions to this rule. The paragraph "additional access measures" discusses the aim of attracting the best and brightest students to their institution, regardless of their background. It is explained that the contact and attraction of these prospective students is done via an extensive range of outreach activities, including examples of outreach activities. In the first Access Agreements from 2006-2010, the outreach activities are described in a bit more detail and also the number of activities seems to be more than in the latest Fair Access Agreements. Regarding the activities realised at the university, the employee states that it is "an enormous range of work" (Interview A, l. 82), with a "big range of access outreach programmes" (Interview A, l. 82-83). In the interview it is explained that "there is a central university team" (Interview A, l. 83) and some examples of outreach programmes are summarised. For example "a series of masterclasses aimed at those in Years 10, 11 and 12, so that they understand the nature and access to the courses" (Interview A, l. 84-85), or the collaboration of all the Colleges with schools to support and maintain preparation in schools in every local educational authority in the UK (Interview A, l. 85-86), and the "growing range of online resources to try and tackle the attainment issues ... particular in STEM programs, so there are programs call Isaac physics, there is a STEM support

programme, programs on engineering and then across subjects a platform called HE+” (Interview A, l. 91-94). In this paragraph, also the possible financial support for a student is explained and how to obtain this financial support. The milestones and the targets of the university are set out in the paragraph “targets and milestones”. The focus of the targets and milestones is on the characteristics of an individual applicant and acceptant. Returning characteristics in focus are: proportion of low participating neighbourhood students, so students from a lower socio-economic background, and the proportion of state school students. In the first years, also the educational background of parents was a characteristic looked at by the university, but this has disappeared over the years. Just as with the diversity strategy, all these paragraphs are there to create equality, diversity and inclusion of everyone in the student population.

When asking the employee of the university about the diversity strategy or other instruments created for the management of diversity, the employee stated: “So the things that we put into our Access Agreement are obviously things that we think are important, but also things that, uhm, programs that are needed. And so, a lot of what is in the Access Agreement is activity that would happen any way even if there is no Access Agreement” (Interview A, l. 244-247). One could conclude from this statement that most of the activities by the University of Cambridge are only implemented at the university because of the commitment of the university to the Widening Participation policy. However, when asked earlier in the interview if the university would have had a diversity strategy even if the commitment to the Widening Participation was not there the employee stated: “it is clearly the right thing to do ... we want to make sure that we are representative, once you have taken that academic attainment into account” (Interview A, l. 152-155) and “there are diversity strategies all across the university, so for staff as well as for students. So it is something all institutions should be engaging in, because it makes sure that any application process is not biased against particular groups.” (Interview A, l. 161-164). Taken these statements into account the steps taken by the University of Cambridge are implemented because they have to be, but also because the University wants to be more equal, diverse and inclusive.

6.2.4. Perceptions of characteristics of the University of Cambridge

Coming forward from the theory, perception of characteristics of a higher education institution should have an influence on the access to higher education. However, as no measures were coming forwards in regards to the perception of characteristics of an higher education institution in the diversity strategy or other instruments at the University of Cambridge, one is to believe that this variable might not have an influence on the access to the University of Cambridge. Nonetheless, in the interview with the employee it is put forwards as one of the two biggest challenges of the institution. The employee articulates that “within public perception in the UK, Cambridge and Oxford, that is, what we always been locked to, they have a very particular public perception” (Interview A, l. 70-72) and “there are

lots of misogyny that surrounds the university and often people who would ideally be suited to the courses here, to the academic nature of the courses, do not apply, because they, the public perception puts them off from applying” (Interview A, l. 72-74). When asking what is done to tackle this challenge, an answer is given more in regards with the other big challenges faced by the institution – the nature of the degrees at the institution, but asking again at a later stage provides a more clear answer.

As discussing the fact that the Fair Access Agreements might be very complex documents and a lot of people might not understand the documents, the employee ensures that it is not the misunderstanding of the document, but the perception of the university that will put off students from applying (Interview A, l. 283-284). Platforms, like social media, are actively used to breakdown this perception. Undergraduates are asked to breakdown the perceptions at social media, by standing up and stating what is true and why someone should apply (Interview A, l. 302-306). Furthermore, the university works together with “journalists who are writing stories to make sure what they are saying is as accurate as possible” (Interview A, l. 307-309) and “occasionally we will agree to collaborate with documentary makers, if they would like to do something” (Interview A, l. 313-314). However, “a lot of the information does come though the UK media” (Interview A, l. 309) and “they are quite notorious when it comes to a story involving Oxford and Cambridge” (Interview A, l. 309-310) and “the worst light it paints us in, the more likely it becomes that, that the story will be runned” (Interview A, l. 311). The employee admits that the perception is “very powerful” (Interview A, l. 288) and that the university will try to change the perception as best as possible, but that “everything we do in terms of the press, cannot be to the disadvantages of any of our students ... that is our absolute red line ... nobody should put their chance of a place at risk because something media related has happened“ (Interview A, l. 316-318). The steps taken have slowly had an effect, but the views on the universities of Cambridge and Oxford are so strong, transforming that overnight is never going to happen, but breaking it apart slowly is possible (Interview A, l. 322-325).

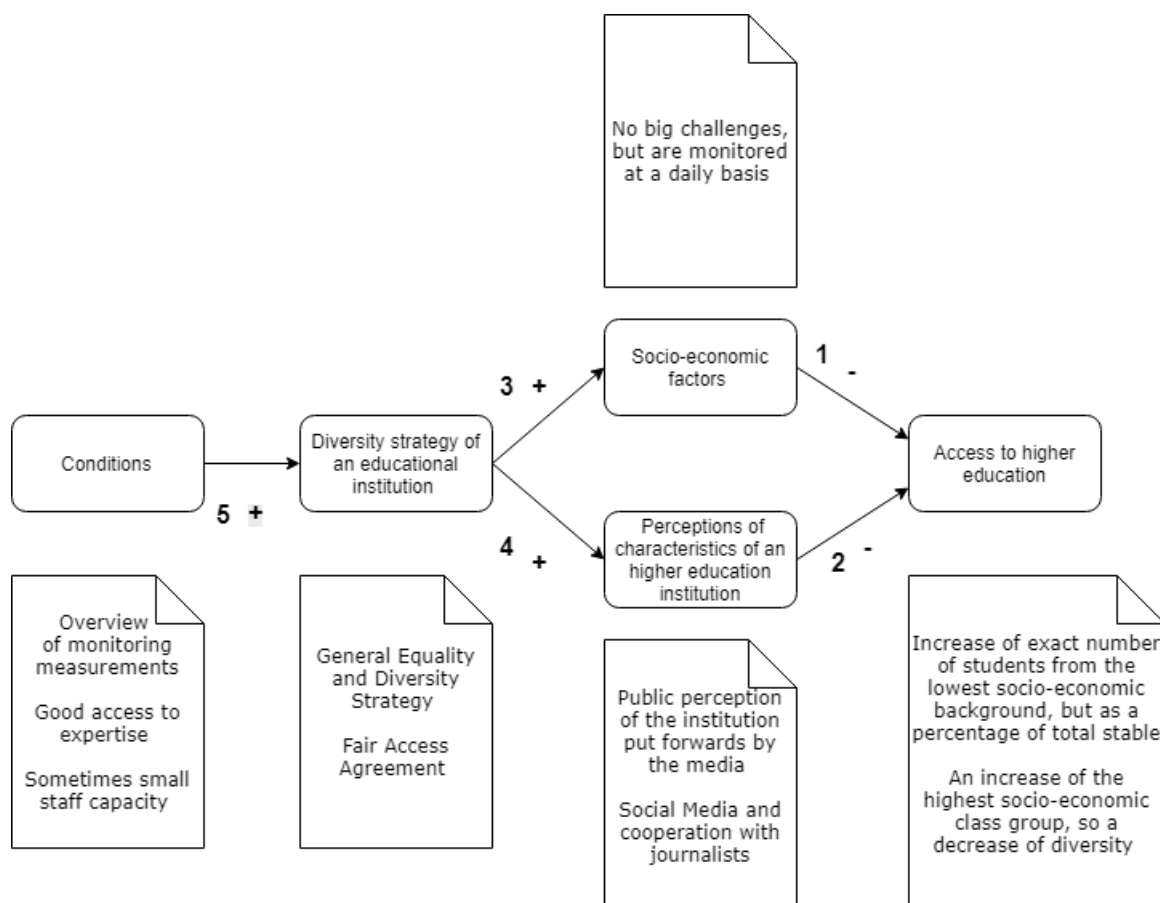
6.2.5. Socio-economic factors influencing access to the University of Cambridge

Different than with the perception of the public on the characteristics of a higher education institution, socio-economic factors are not mentioned by the university employee as a big hurdle with regards to the education attainment at their institution. The employee explains that when measuring diversity, they do take into account both socio-economic and individual characteristics (Interview A, l. 34-35). The socio-economic factor is measured via the measurement POLAR, which indicates if a student is from a low participation area (Interview A, l. 43-45). The results from the monitoring of the socio-economic factor can be found in the Undergraduate Admissions Statistics of each admission circle. In these Undergraduate Admissions Statistics also the other monitored characteristics can be found.

As mentioned before, the employee named two big challenges with regards to educational attainment at their institution. The nature of the degrees at the University of Cambridge is one of the challenges indicated by the employee. The high levels of prior attainment needed for the courses at the university stops many from applying. “The courses are challenging, even for people who have not encounter any educational challenges. Who have been very, very well supported. So we have to make sure that everybody, is able to manage the course.” (Interview A, l. 67-69). The entry requirements to the courses have always been the highest, because of the difficulty of the degree course, and the university has “never gone down the road of offering lower terms, because it would not help the students that we are trying to attract”. The university’s retention rate is the highest in the United Kingdom, with less than one percent of the students not graduating from their degree (Interview A, l. 186-188). So taking in students with lower prior attainment, will not benefit the students, but also not the university.

6.2.6. Conclusion

As the University of Cambridge has committed itself to the Widening Participation policy, it obligated itself to creating an environment in which diversity and equality are important factors. The university has created its own first diversity strategy in 2016, but already had agreements to create an unbiased admission process in place since 2006. Included in these agreements are outreach programs which try to attract students from disadvantage backgrounds, focusing on the individual characteristics of an individual student. These are monitored, but the effectiveness of them are unknown until now. Undergraduates active on social media and staff working together with journalists should break down the perception of the UK public on the university. However, when looking at the number of applicants and acceptances to the institution, the number of applicants and acceptances of the highest classes



from society are still the highest and have even increased since the implementation of the Fair Access Agreements and diversity strategy. Not creating a more diverse and equal student population.

Figure 7: Framework for the University of Cambridge

6.3. *Comparison University of Duisburg-Essen and University of Cambridge*

6.3.1. Access to higher education

Taking a final look at the enrolment statistic – exact and percentage – of both intuitions, the University of Duisburg-Essen has an increase of students in all measurements of a disadvantage background, with a focus on measurements of a low socio-economic background. The number of students with a migration background has significantly increased over the years, and the number of students with no educational background also has increased (Figure 3). For the University of Cambridge, the exact number of students from a lower socio-economic background has increased, but the percentage of the total number of students applying and accepted to the university stays stable. However, the number of students from the highest classes of the socio-economic classes increases significantly in exact and percentage. This would suggest that the situation sketched by Bourdon (1973) is true – the higher the socio-economic status of the father (in this research family), the higher the change that the son (in this research also daughter) will also achieve a high social status and the lower the educational level of a family, the stronger the effect is on the child. The University of Duisburg-Essen would have based on these statistics increased the diversity in their population and the University of Cambridge has decrease the diversity in their population.

6.3.2. Conditions

Coming forward from the theoretical framework for the well-functioning of a diversity strategy, circumstances should be in place that create an environment in which management of diversity functions at its best. One of these circumstances is time to learn, meet, process, monitor, evaluate and refine the instruments of the management of diversity (Kruse et al., 2017). Both universities under review have included this condition into their diversity management process. The University of Duisburg-Essen included a description in the diversity strategy about their future planning and ways of monitoring progress, whereas the University of Cambridge included a general description in the diversity strategy and a more detailed description in the Fair Access Agreement, but this is because it is part of the obligatory parts to include in the Fair Access Agreement. The commitment made by both universities show that for both institutions the work matters and they want to change (Kruse et al., 2017). On this point both universities are very similar. More points to which the two universities are similar, but also points on which they differ are mentioned in Figure 8, and will be explained in the next paragraphs of this part.

Variables	University Duisburg- Essen	University of Cambridge
Conditions	<ul style="list-style-type: none"> - Time to evaluate and monitor - No well structure communication network - No climate of trust and openness 	<ul style="list-style-type: none"> - Obligatory overview of monitoring measurements - Good access to expertise - Small staff capacity
Diversity Strategy of an education institution	<ul style="list-style-type: none"> - Clear described goals and measurements - Small diversity strategy 	<ul style="list-style-type: none"> - General Equality and Diversity Strategy - Fair Access Agreement
Perceptions of characteristics of a higher education institution	<ul style="list-style-type: none"> - No measurements by the institution - Public perception that an academic degree provides for low future prospective 	<ul style="list-style-type: none"> - Public perception of the institution put forward by the media - Social Media and cooperation with journalists
Socio-economic factors	<ul style="list-style-type: none"> - Family background, financial situation and familiarity with educational system deciding factors in educational path 	<ul style="list-style-type: none"> - No big challenges - Monitored on a daily basis
Access to higher education	<ul style="list-style-type: none"> - An increase in number of students with characteristics of a disadvantage background 	<ul style="list-style-type: none"> - increase exact number students lower SES, but percentage stable - increase of number and percentage of highest SES students

Figure 8: Comparison of University of Duisburg-Essen and University of Cambridge regarding the variables

The University of Duisburg-Essen does not really describe a communication network at the institution, and through the interview with the employee of a supporting organisation, it comes forward that the communication within the institution is not well structured. Students and prospective students have often no idea where to go with questions, how to approach teachers, professors and professionals at the institution, and if contact is made, they are often thrown around between the employees at the institution, all not feeling to be the right persons to help the student. The ineffective communication creates uncertainties and does not enhance a good collaboration between staff and (prospective) students (Kruse et al., 2017). Similar to the University of Duisburg-Essen, the University of

Cambridge does not really describe in either the diversity strategy or a Fair Access Agreement information with regards to the communication at the University of Cambridge. It does come forward in the Diversity & Equality Strategy that the management of diversity is split up between many departments at the university and each of these department is responsible for their part in the ambition to reach a more diverse and equal population at the institution. Also from the interview with the university employee the well organised planning and structures at the university are highlighted, but a clear picture is not made. The regular reports and open available data does enhance the communication in the institution and between the institution and (prospective) students (Kruse et al., 2017). However, both institutions are a bit unclear about the communication at the institution.

The University of Duisburg-Essen is trying to build up a network with organisation and institutions with more expertise with regards to the management of diversity. Their expertise on the management of diversity still has to be build and grow. Whereas the University of Cambridge already has a network with other universities managing diversity. Next to this network, another system is developed to even better monitor the diversity at the universities in the United Kingdom which includes the University of Cambridge. The institution benefits greatly from the expertise present at their institution, but also at the other universities within the network (Engberg, 2004). The University of Duisburg-Essen has a challenge with regards to access to expertise. Due to strict privacy regulations, the university is not allowed to collect certain data with regards to students' characteristics. Therefore, important detailed information for the management of diversity is not available to the university. The missing expertise could create unfair practices and/or contribute to the already existing problems (Kruse et al., 2017). The University of Cambridge does not have this problem, because next to its own database with information regarding detailed information of their students, the institution also has access to national databases with detailed information on the national rates of individual characteristics. The German institution is disadvantaged in their access to expertise by national laws, whereas the British institution does not have limits to their access to expertise.

Coming forwards from the interview with the employee of ArbeiterKind.de is the lack of openness and trust at the University of Duisburg-Essen. Students and prospective students have so much respect for their teachers and professors that talking to them is already seen as a hurdle. This fact is often not helped by the view of teachers and professors, since they are of the opinion 'why should I change anything? It was this way when I went to university!'. Complaining about a teacher or professor is often not done, because of fear of being passed in their future educational path. Students have no leverage and feel like the play toy in the system. The bad relation between staff and students does not create an environment in which students and staff would not be willing to participate in improving the equality and diversity at the institution (Kruse et al., 2017). At the University of Cambridge, the system seems much more open, as most of the decisions made have to made public and for all to

discussed. However, an insight in the student-teacher relationship is not provided, so a more detailed answer cannot be given.

In both interviews it comes clearly forward that the staff capacity is small at the institutions. A teacher at the University of Duisburg-Essen is responsible for teaching 91 students, and still doing his or her own research. The double responsibility of the teacher leads to the teacher leaving part of his or her teaching job to the assistant and doing his or her research in this time. It also leads to long waits on results of exams and reports, which again leads to the aforementioned problem of a bad student-teacher relationship. The University of Cambridge does not have this specific problem, but does have a shortage of staff in the period in which all applicants should be interviewed with regards to their application to the institution. The university does try to minimise the effect of this shortage, by interviewing the students with the highest chance of getting in to the institution, but still providing all applicants with tests and exams to prove their high educational attainment and possibility to be selected over these results. So was the staff shortage a problem for the University of Duisburg-Essen, the problem for the University of Cambridge is not that big and they try as best as they cannot to not let this be a disadvantage for students and prospective students.

6.3.3. Diversity strategy of an educational institution

Both the University of Duisburg-Essen and the University of Cambridge have a general diversity strategy. In these diversity strategies the general guidelines, objectives and measurements are set out. The diversity strategy of the University of Duisburg-Essen is in these points more detailed than the diversity strategy of the University of Cambridge. However, this is due to the fact that the diversity strategy is at the University of Duisburg-Essen is the only document with regards to the management of diversity, whereas there are multiple documents in this aspect at the University of Cambridge. At the University of Cambridge, there are specific documents with regards to different aspects of diversity at the institution, whereas the University of Duisburg-Essen has included all these aspects in one document. The guidelines, targets and measurements of the admission process are set out in the Fair Access Agreement for the University of Cambridge. The detailed agreements, especially the Fair Access Agreement of the University of Cambridge, assumes better access to the institution and would create an more diverse system, creating an environment in which everybody can perform at their best (Van Vught, 2007). So both university have a detailed diversity strategy, only the strategy of Duisburg-Essen is much smaller than the University of Cambridge, which is built up out of multiple documents.

6.3.4. Perceptions of characteristics of institutional characteristics

The perception of the public with regards to the Duisburg-Essen University is not seen as a challenge, since the institution does not have any measurements to regulate the influence of this aspect on the

institution. However, academics in general is mistrusted by some ethnical groups in society, which includes the University of Duisburg-Essen. The lack of experience and information lead to the idea that people with an academic degree will have problems finding a job, have big financial problems and will be deemed to be in the bottom classes of society. The value of the opinion of family and friends is high as also stated by Ljepava (2016), and stops students from applying. Furthermore, the bad communication structure is not helping in this aspect and will lead to less pupils applying for higher education (Kruse et al., 2017). For the University of Cambridge, the public perception is especially against them and the University of Oxford. The British media spreads a picture in which the both universities are put in the worst light possible most of the time. Influencing the assessment of the reputation by (prospective) students (Hazelkorn, 2014). The university is aware of this fact, and tries by actively using social media and cooperating with journalist to break down the build-up perception. So both universities have a problem with perceptions surrounding higher education, only one of the university is aware of this fact, whereas the other does not seem to be.

6.3.5. Socio-economic factors

Especially coming forwards in the interview with the employee of ArbeiterKind.de are the three factors influencing the educational path of a pupil or student. Family background, financial situation and the familiarity with the German educational system, which indirectly refers to the citizenship status of a pupil or students, are the three big deciding factors in the educational future of a young person in Germany. The financial situation is maybe not directly the biggest issue, but indirectly it does have an effect. Goldrick-Rab et al. (2017) stated that the financial situation indeed would influence the enrolment of students. However, Goldrick-Rab et al. (2017) come to the conclusion that students would base their choice of enrolment on the possibility of funding of their study, but for the University of Duisburg-Essen this is not the case, as students and their parents from low socio-economic backgrounds are to ashamed for their situation to apply for any kind of funding. The prospective of owning the state money is also an aspect contributing to the resistance of applying to a higher education institution. These factors do not seem to be an issue at the University of Cambridge. The individual characteristics of a student are not seen as a big challenge by the university. They are of importance, and for that reason it is necessary to monitor the individual characteristics of their students, and create programs in which the disadvantage groups in society should be attracted to their institution. However, it seems as would these steps only have been taken because of the commitment to the Widening Participation policy. For both universities the individual characteristics, including the socio-economic status, of a student influence the attainment of higher education, however, as both universities seem to be aware of this fact, the University of Duisburg-Essen has yet create measurements with regards to the improvement of the access for students from a disadvantage background and the University of Cambridge seems to only take it into account because they have to,

due to their commitment to the Widening Participation policy, and are more interested in keeping their entry requirements as high as possible.

7. Conclusions

In this chapter of the thesis, the sub-questions will be answered first, followed by answering the main research question of this study: *‘How do the diversity management strategies at the University of Duisburg-Essen, Germany, and the University of Cambridge, United Kingdom, differ with regards to affecting the impact of socio-economic factors on access to higher education?’*.

- 1) *‘Which diversity strategies are used at the University of Duisburg-Essen and the University Cambridge?’*,

The University of Duisburg-Essen (2016) has implemented a general diversity strategy which includes the guidelines, measurements and targets of the five central areas which are according to the university of importance in the development of a more diverse and equal population. The main goals of the institution include further optimising access to their institution and use the potential and talents of pupils and students to the fullest, minimising the biases in their educational system with regards to individual characteristics, increasing the universities importance as leading university in the area and further implementing the diversity aspects in the educational system. For students of a lower socio-economic background this means that their background should not be of importance in their attainment of higher education and environment is created at the University of Duisburg-Essen in which everybody, including disadvantaged students, prove at their best (Van Vught, 2007).

The University of Cambridge (2016) has implemented a general diversity strategy which includes five objectives and guidelines with regards to the ambition of a more diverse, equal and inclusive institution population. Next to the general diversity strategy, multiple other documents with regards to the implementation of diversity and equality are present at the institution, each of the documents discussing another aspect of diversity and equality. The document of importance to this thesis is the Fair Access Agreement in which all measurements, targets and monitoring guidelines are described in a detailed way. Information with regards to regulate a fair, unbiased attainment process are described, but also information with regards to attracting students from a disadvantaged background, including outreach activities are provided in the Fair Access Agreement. The University of Cambridge tries to do everything to provide disadvantage students with the opportunity to move upwards in the social ladder (Van Vught, 2007). A review of monitoring the desired results is also given in the agreement, including the information that all the statistical data and reports with respect to this aspect of diversity will be published at their website.

2) *'What do the diversity management strategies achieve at the University of Duisburg-Essen and the University of Cambridge?'*

The University of Duisburg-Essen has only recently implemented the diversity strategy and other measurements with regards to the management of diversity at their institution. Different factors with regards to individual and institutional characteristics are found to influence the enrolment of a student, including family background, financial situation of a student and/or his or her family (Goldrick-Rab et al., 2017) and perception of students and/or their family of academics in general (Ljepava, 2016). However, also factors related to the University of Duisburg-Essen, for example the lack of trust and openness at the institution and the unstructured communication network, influence the education attainment of students (Kruse et al., 2017). The 'Universität der Potenziale: Die Diversity-Strategie der Universität Duisburg-Essen' does not discuss all the factors influencing the access to higher education, as found in this research. Nonetheless, data on the student population already shows an increase of students from a disadvantaged background. The changes are small, but indicate positive effects of the measurements taken by the institution. However, as the data is only for five years, it could mean that there is a temporary increase and because the data is only over a small proportion of the population, the results coming forward, may not be representative for the whole student population of the University of Duisburg-Essen. Furthermore, there is the possibility of a third variable influencing the access to education and factors impacting the enrolment numbers to the institution.

The University of Cambridge first implemented a Fair Access Agreement in the year 2006, and the first Diversity & Equality Strategy was implemented in 2016. Factors found in this research to be influencing the access to the University of Cambridge include the perception of the University of Cambridge created by the UK media (Hazelkorn, 2014), the nature of the courses at the institution and the socio-economic status of a student. A comparison of the data on the applications and acceptances of students to the University of Cambridge show an increase in the exact number of students from the lowest classes of socio-economic status, but also an increase in the same data for the highest classes of socio-economic status. If looking at the percentage of the total number of applicants and acceptances, the percentage of the lowest socio-economic classes is stable, only increasing with one percentage point. The percentage of the highest socio-economic class increased with more than ten percentage point in the same time span. The benchmark set in the Fair Access Agreements with regards to the proportion of students from low participating areas – between 3 or 4 percent – might be reached, but the significant increase of students from high participating areas sets the reached target in another light. Leading to the conclusion that the socio-economic diversity at the University of Cambridge has decreased instead of increased.

3) *'What differences can be found in the achievements of the strategies of the University of Duisburg-Essen and the University of Cambridge?'*

The University of Duisburg-Essen has only implemented a general diversity strategy, but data have shown an effect of the measurements taken by the institution. The University of Cambridge has implemented much more to create a more diverse and equal population at their institution, but the results seem to be much smaller, or even have opposite results. The measurements taken by the University of Duisburg-Essen seem to break down the barriers of the factors influencing the access to their institution better, than the measurements taken by the University of Cambridge to break down their barriers. However, it seems that the University of Cambridge is much more aware of the influences on the enrolment to their institution and their shortcomings. The University of Cambridge has implemented instruments to do as much as possible to solve the shortcomings and to not let them disadvantage students and prospective students. The University of Duisburg-Essen has some idea of what is influencing the access to their institution, but not as detailed as at the University of Cambridge. The results from the statistical analysis give another picture than the image that is sketched by the analysis of the other variables of the theoretical framework of this thesis. However, enrolment numbers do give a clear picture. The University of Duisburg-Essen seems to have achieved more in the management of diversity than the University of Cambridge.

4) *How do the diversity management strategies at the University of Duisburg-Essen, Germany, and the University of Cambridge, United Kingdom, differ with regards to affecting the impact of socio-economic factors on access to higher education?*

The diversity strategies at the University of Duisburg-Essen and the University of Cambridge differ in many aspects. The strategy document might seem similar, with general guidelines, measures and targets, but when analysing it is clear that the strategy of Cambridge only sets out how diversity is managed by different departments, all responsible for a different aspect of diversity. The diversity strategy of Duisburg-Essen consists of only one document that includes all aspects of diversity, including all aspects of diversity and their guidelines, targets and measurements. The diversity strategy of the University of Cambridge is much broader than just the Diversity & Equality strategy, with a specific agreement of the managing and monitoring of access diversity, the Fair Access Agreement. Where one expects that the agreement focusing on the access to their institution by the University of Cambridge, especially since there is a focus on attracting students from low participating areas, would manage the socio-economic diversity the best, the barriers for students from a lower socio-economic background still seem to be in place. The mix of outreach activities used to attract students from a disadvantage background, collaboration with secondary education schools and online programs seem

to be ineffective, but this cannot be said with certainty, because the effectiveness of the outreach activities and online programs cannot be measured. This is different to the University of Duisburg-Essen, where the institution does manage the diversity of the institutional population, but more general and not with regards to first years and applying students. However, it looks like the measurements taken by the University do have an effect on the enrolment of students and are breaking down barriers for disadvantaged students, since the number of students from lower socio-economic background has increased. The central approach of the University of Duisburg-Essen seems to be more effective than the decentralised approach of the University of Cambridge.

The conditions at both universities differ in some aspects from each other, whereas in other aspects they are very similar to one and other. For both universities the perception of a higher education institution is influencing the enrolment to their institution, but in different ways. For the University of Duisburg-Essen it is a negative perspective of academic in general, whereas it is for the University of Cambridge, specifically towards their institution. Family background, including financial background influences the access for students to the University of Duisburg-Essen, as the students are not familiar with the financial possibilities for them and are more ashamed of their situation. Socio-economic factors should not influence the enrolment to the University of Cambridge, but the number of students from the lowest classes of socio-economic status are the lowest number at the institution. In the end the statistical results show a clear picture, in which the University of Duisburg-Essen is the university that has better results in creating a more diverse population than the University of Cambridge.

To further improve the diversity in their institution, the University of Duisburg-Essen should gain further insight in the influence of the public perception of academic degrees and the problems faced by students from a lower socio-economic background. Further, better communication would help give students and prospective students the idea of doing the right thing and feel supported. The same goes for creating an environment in which openness and trust is coming more forward than it is at the moment. The University could also think about expanding the diversity strategy, as the University of Cambridge did, by having for each area of importance of diversity an own document, in which in more detail the guidelines, objectives and measurements are explained. However, focussing on one or two instrument would be sufficient, as the implementation of a mix of instruments seems not to be effective.

The University of Cambridge could improve their diversity by getting an even better insight in the effect of the measurements implemented by the institution. As for now, many instruments are thought to attract students from disadvantaged background, but the effectiveness of these instruments on the enrolment numbers to their institution is unknown. Furthermore, the Fair Access Agreement is detailed and well written, but as also said by the employee many people have no idea of what is

explained in these documents. It would be an idea to explain in a simple English what is described in these document, even if it is just one page.

8. Discussion

8.1. Study's implications

This research provides an insight into the diversity management of two higher education institutions. Factors influencing the access to higher education come forward in the research, some positively and some negatively influencing the education attainment. This research could provide (prospective) students with certain characteristics with the indication if the institution is the right institution with their background to attain their education. Also other higher education institutions could use this research to see if the measurements taken by the two institutions under review function at their best and could be implemented at their institution.

8.2. Recommendations for future research

Considering the limitations mentioned in the methodology and the findings of this study, multiple follow up research can be done. First of all, the research can be replicated in a larger form, so include more higher education institutions. The research could be done EU wide, but can also focus on one country, and be representative EU wide or for the one country. Secondly, future research could aim at more interviews, with employees of the higher education institutions and supporting organisations, but also with students from a disadvantaged background. Thirdly, future research could consider comparing the results of an institution with the national results and see if the institution is doing well or are lacking behind the national average. Finally, in the future statistical data could be collected more, especially for German institution, but this might be difficult due to privacy regulations.

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10. Appendix

10.1. *Interview questions for the admission tutor of the University of Cambridge*

- What is diversity for the University of Cambridge
- What were the biggest challenges the University of Cambridge had to overcome in the achievement of equality and diversity in access to education?
- Are these challenges from within the institution or are these challenges from outside/the environment?
- What did the University of Cambridge do to tackle these challenges?
- Were all the challenges mentioned?
- Why did the University of Cambridge implemented diversity and equality policies?
 - National policies or institutional goals?
- Are all the challenges mentioned before addressed in the polies of the institution and at national level?
- Did all the policies implemented work, or were there policies that did not have the wanted effect / result?
- Did and do the implemented policies impact the enrolment of students from a disadvantage background?
- Did the failing of implemented policies impact the not enrolment of students or drop-out of first year students from a disadvantages background?
- If the policies were not there and there would also not be a commitment to national policies, like the Widening Participation, how would the situation have been?
- To finish the interview, I would like to know what would you do if you had a million pounds to spend on the diversity management at the University of Cambridge?

10.2. *Interview questions for the employee of ArbeiterKind.de in Duisburg-Essen, English questions*

- What is diversity for ArbeiterKind.de?
- Why was ArbeiterKind.de established?
- What are the biggest challenges students asking for help by ArbeiterKind.de have to overcome in the achievement of access to higher education?
- Are these challenges coming from the higher education institution or are these challenges from outside / their environment?

- What does ArbeiterKind.de do to help tackle these challenges?
- Do all the steps taken to help disadvantage students by ArbeiterKind.de help and have the wanted result or are there also steps/instruments that do not work?
- Are there still students that do not apply for a higher education institution or students that drop-out of their first year, which have the help of ArbeiterKind.de? Why?
- How do ArbeiterKind.de and the University of Duisburg-Essen cooperate?
- Is the University of Duisburg-Essen the only higher education institution with whom ArbeiterKind.de cooperates in North Rhine Westphalia?
- Is the work put in by ArbeiterKind.de and the University of Duisburg-Essen equal or is there one party putting more effort in the cooperation?
- What are the biggest challenges faced by students from the region North Rhine Westphalia when trying to get access to higher education?
- Are their specific activities done in the region of North Rhine Westphalia to tackle the challenges faced by students, similar to the activities to those of other places or are they more specific for the region?
- The Hochschulgesetz of North Rhine Westphalia states in Absatz 4, paragraph 3 that a diversity management strategy at a higher education institution might be a good idea, however, there is no legal reason yet to make it an obligated assessed of an institution. Would it be better to make it obligatory for an higher education institution? Why?
- To finish the interview, I would like to know what you would do if you had a million euros to spend on the diversity management in the cooperation between the University of Duisburg-Essen and ArbeiterKind.de?

10.3. Interview questions for the employee of ArbeiterKind.de in Duisburg-Essen, German questions

- Was ist Diversität/Vielfalt für ArbeiterKind.de?
- Warum wurde ArbeiterKind.de gegründet?
- Was sind die größten Herausforderungen für Studenten, die bei Arbeiterkind Unterstützung für ihren Hochschulzugang suchen?
- Stehen die Herausforderungen eher im Zusammenhang mit einer bestimmten Universität oder mehr mit dem persönlichen Umfeld?
- Was macht/leistet ArbeiterKind.de, um den Herausforderungen zu begegnen?
- Haben alle Maßnahmen von Ihnen den gewünschten Effekt bezüglich der Unterstützung für die Studenten, oder gibt es auch Maßnahmen, die eher weniger erfolgreich waren/sind?
- Gibt es auch Studenten, die ihr Studium trotz Ihrer Unterstützung ihr Studium nicht antreten (können) oder abbrechen?

- Wie arbeiten ArbeiterKind.de und die Universität Duisburg-Essen zusammen?
- Ist die Universität Duisburg-Essen die einzige Hochschule mit der ArbeiterKind.de in NRW zusammenarbeitet?
- Ist die Zusammenarbeit von ArbeiterKind.de und der Universität Duisburg-Essen ein ausgewogene Zusammenarbeit oder ist die Zusammenarbeit eher einseitig?
- Was sind die größten Herausforderungen, mit denen Studenten aus NRW konfrontiert werden, wenn es um Zugang zu Hochschulbildung geht?
- Gibt es Unterstützung für den Zugang zu Hochschulbildung, die nur in NRW verwendet werden?
- Das NRW Hochschulgesetz Absatz 4, Paragraph 3 schreibt das Diversität Management sehr erwünscht ,aber nicht verpflichtend ist. Wäre es Ihrer Meinung nach besser sein, wenn es ein verpflichtender Teil des Hochschulgesetzes ist?
- Am Ende von diesem Interview, würde ich gerne wissen, was Sie machen würden wenn Sie eine Spende in Höhe von 1 Mio. € bekommen würden, die die Arbeit von Arbeiterkind und der Uni DUE für Diversity Management fördern würde?

10.4. Tables

Figure 9: Measurements of a student's background for the University of Duisburg-Essen for the academic years 2012/2013, 2013/2014, 2014/2015 and 2015/2016.

Abbildung 1: Diversitätsmerkmale im Hochschulkontext

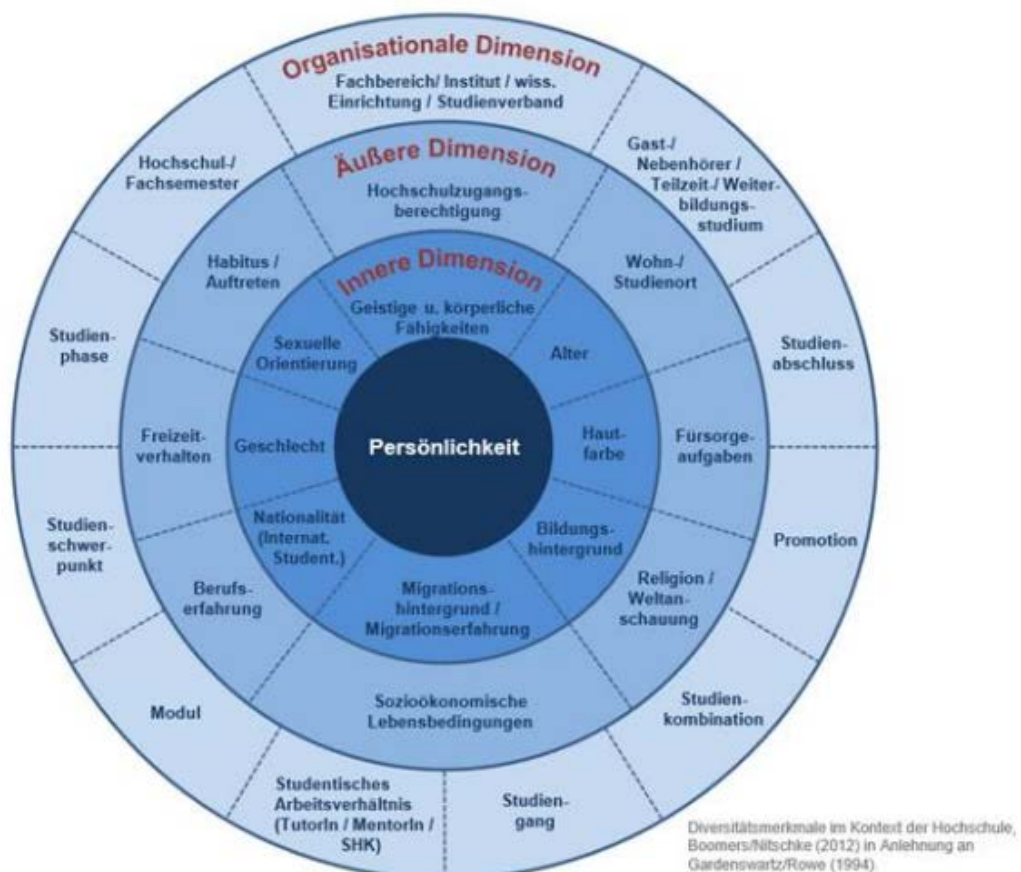


Figure 10: Measurements of a students' background for the University of Duisburg-Essen for the academic year of 2016/2017.

Tabelle 1: Diversitätsmerkmale in der UDE im Diversity Monitoring

(SOZIO-)DEMOGRAFISCHE DIVERSITÄT	<ul style="list-style-type: none">> Alter> Geschlecht> Betreuung von Kindern/Angehörigen> Behinderung/chronische Erkrankung> Migrationshintergrund> Bildungshintergrund> Finanzierung des Studiums
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Figure 11: Number of first year men, women and total participants for the University of Duisburg-Essen since 2012/2013

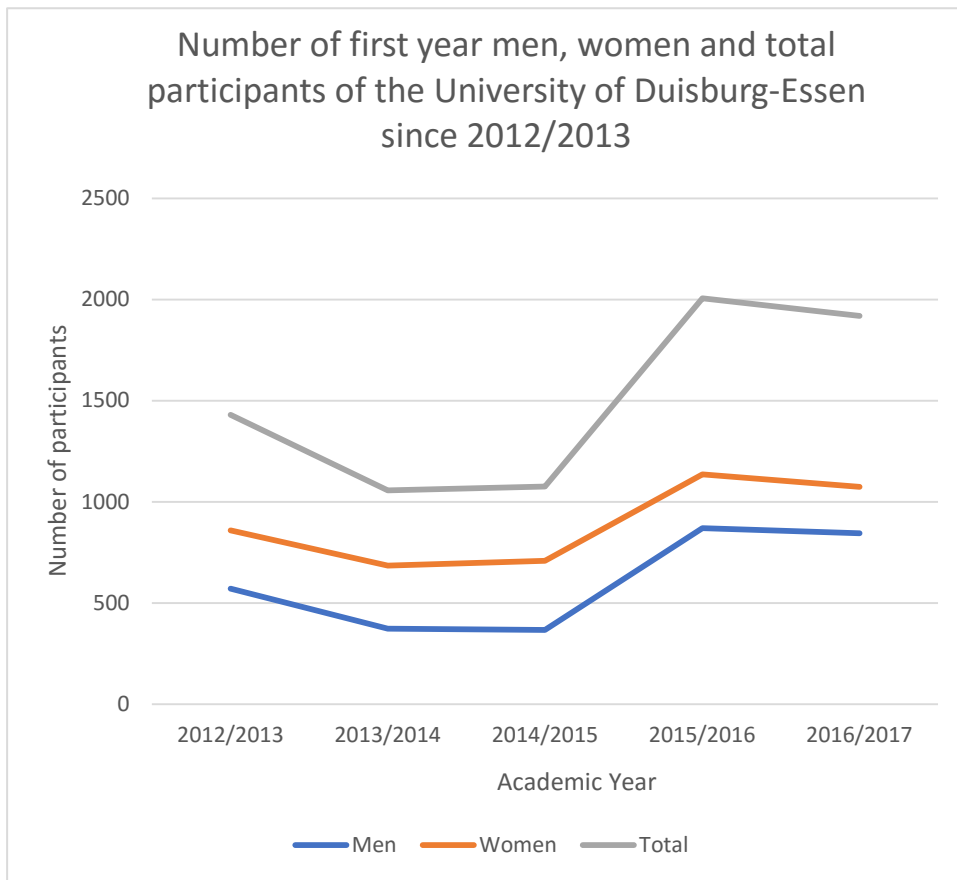


Figure 12: Number of first year students in accordance to their age for the University of Duisburg-Essen since 2012

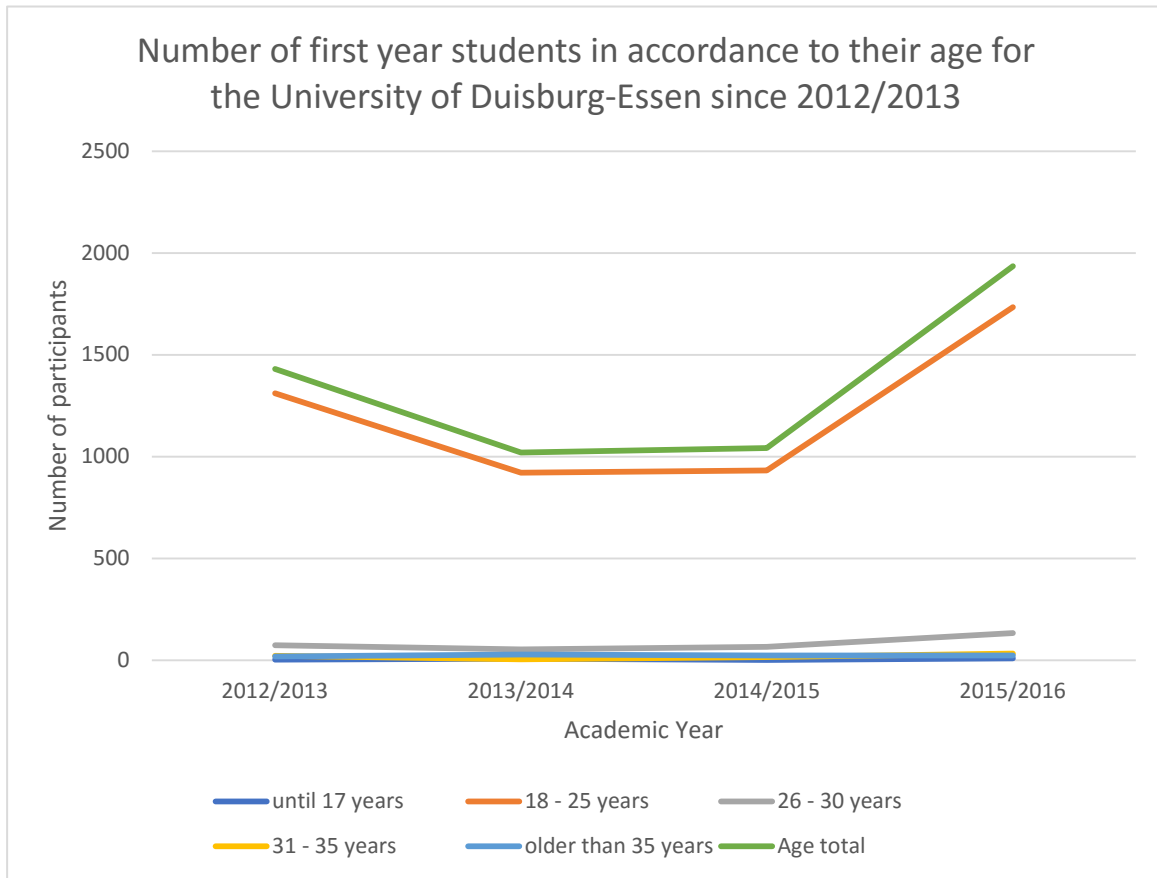


Figure 13: Number of first year students in accordance to their academic background for the University of Duisburg-Essen since 2012

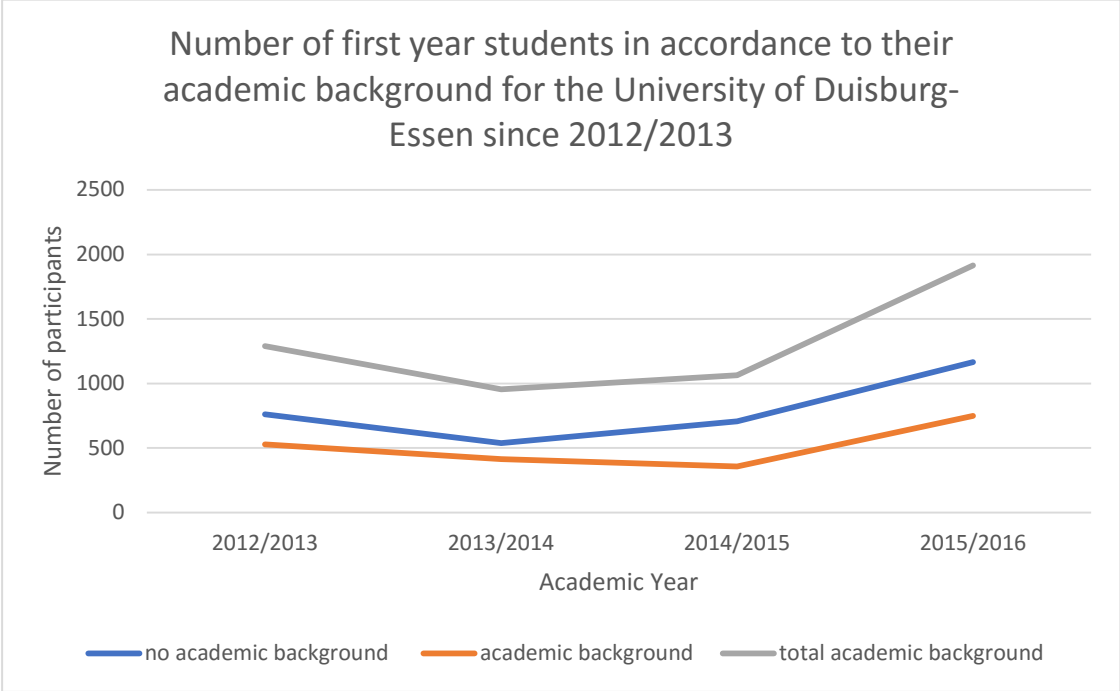


Figure 14: Number of first year students in accordance to their migration background for the University of Duisburg-Essen since 2012

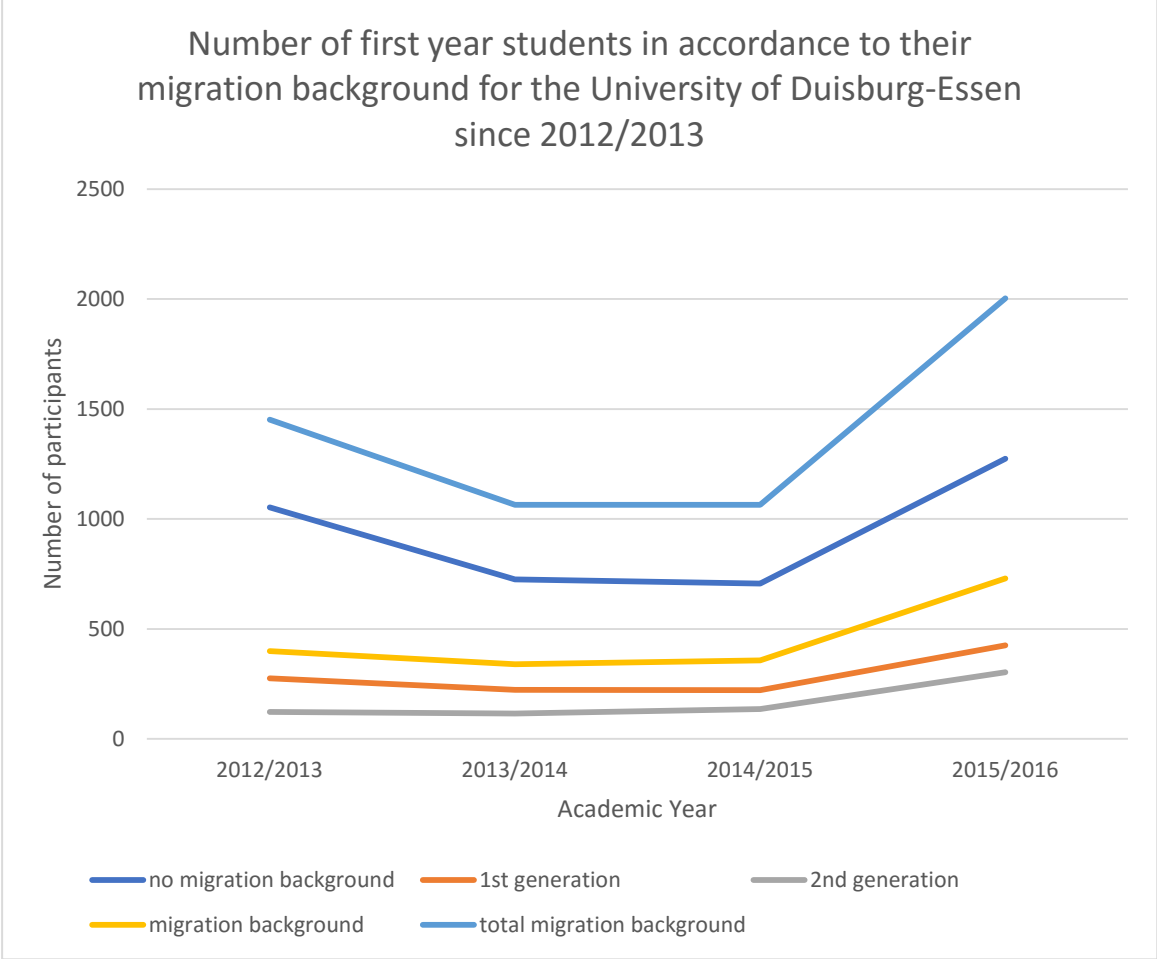


Figure 15: Number of first year students in accordance to their nationality for the University of Duisburg-Essen since 2012

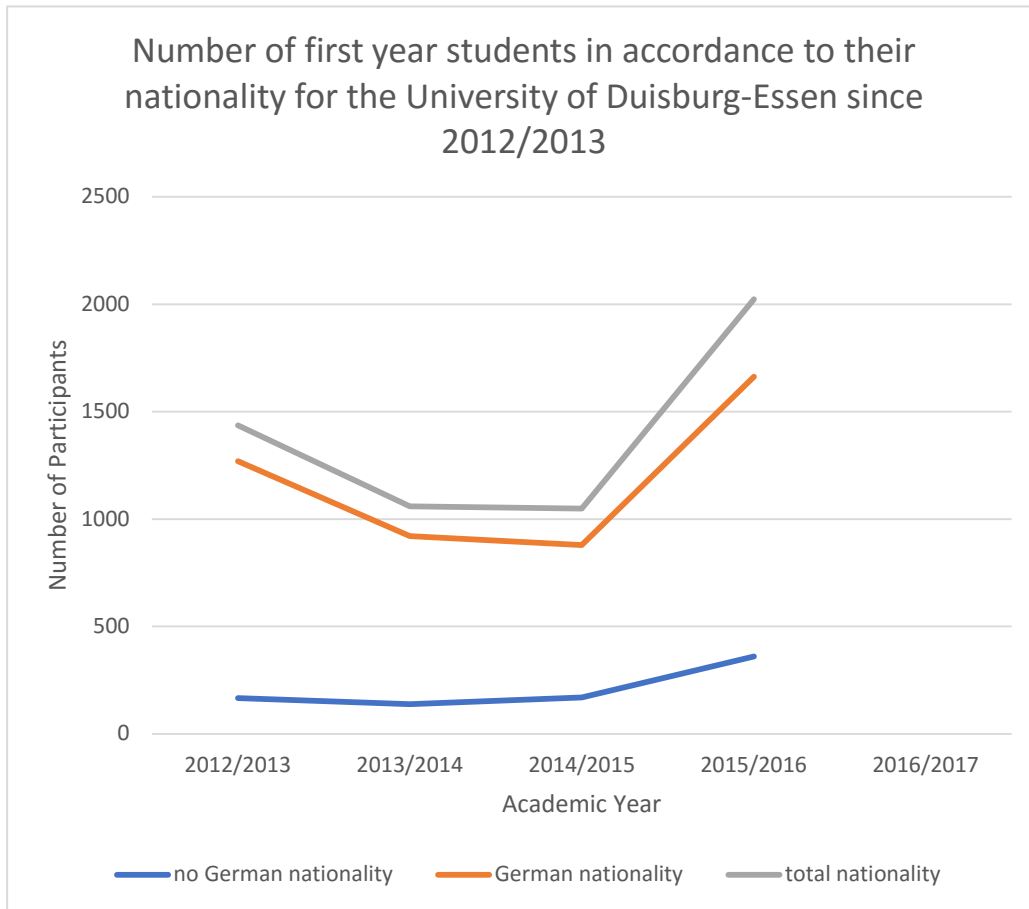


Figure 16: Number of first year students in accordance to their way of financing their study for the University of Duisburg-Essen since 2012

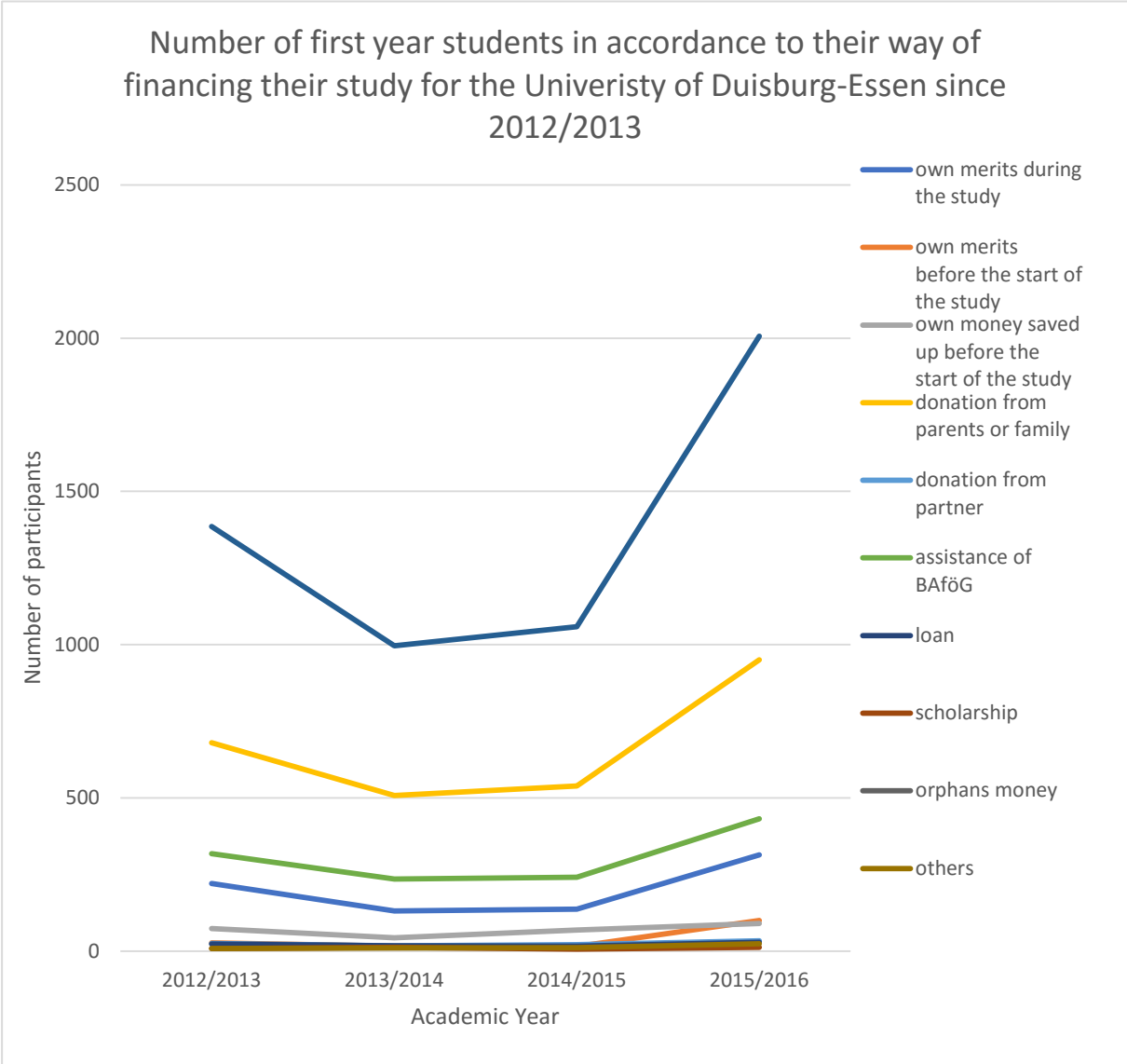


Figure 17: Participating students according to gender and age in percentage of total number of first year for the University of Duisburg-Essen

Year	Men	Women	Total	bis 17 Jahre	18 - 25 Jahre	26 - 30 Jahre	31 - 35 Jahre	über 35 Jahre	Alter total
2012/2013	7,70%	11,58%	19,29%	0,05%	17,68%	1,00%	0,30%	0,27%	19,30%
2013/2014	6,29%	11,59%	17,88%	0,15%	15,60%	0,91%	0,10%	0,49%	17,25%
2014/2015	4,83%	9,36%	14,20%	0,04%	12,32%	0,87%	0,22%	0,32%	13,77%
2015/2016	11,66%	15,22%	26,88%	0,13%	23,23%	1,80%	0,44%	0,32%	25,92%

Figure 18: participating students according to gender and age in percentage of total participating students for the University of Duisburg-Essen

Year	Men	Women	Total	bis 17 Jahre	18 - 25 Jahre	26 - 30 Jahre	31 - 35 Jahre	über 35 Jahre	Alter total
2012/2013	39,33%	59,16%	98,48%	0,28%	90,29%	5,10%	1,52%	1,38%	98,55%
2013/2014	34,96%	64,38%	99,34%	0,85%	86,65%	5,08%	0,56%	2,73%	95,86%
2014/2015	33,86%	65,59%	99,44%	0,28%	86,31%	6,11%	1,57%	2,22%	96,48%
2015/2016	42,77%	55,85%	98,62%	0,49%	85,25%	6,59%	1,62%	1,18%	95,13%

Figure 19: participating students according to their academic background in percentage of total number of first year students for the University of Duisburg-Essen

Year2	nicht akademisch hintergrund	akademische Bildungshintergr und	total Bildungshitergr und
2012/2013	10,26%	7,13%	17,40%
2013/2014	9,12%	7,02%	16,14%
2014/2015	9,34%	4,71%	14,05%
2015/2016	15,62%	10,02%	25,64%

Figure 20: participating students according to their academic background in percentage of participating students of the University of Duisburg-Essen

Year2	nicht akademisch hintergrund	akademische Bildungshintergrund	total Bildungshintergrund
2012/2013	52,41%	36,43%	88,84%
2013/2014	50,66%	39,00%	89,66%
2014/2015	65,40%	33,02%	98,43%
2015/2016	57,33%	36,77%	94,10%

Figure 21: participating students according to their migration background in percentage of total first year students for the University of Duisburg-Essen

Year3	Kein Migrationshintergrund	1. Generation	2. Generation	Migrationshintergrund	Total Migrationshintergrund
2012/2013	14,20%	3,72%	1,66%	5,38%	19,58%
2013/2014	12,26%	3,77%	1,96%	5,73%	18,00%
2014/2015	9,34%	2,92%	1,80%	4,71%	14,05%
2015/2016	17,07%	5,71%	4,06%	9,77%	26,84%

Figure 22: participating students according to their migration background in percentage of participating students for the University of Duisburg-Essen

Year3	Kein Migrationshintergrund	1. Generation	2. Generation	Migrationshintergrund	Total Migrationshintergrund
2012/2013	72,52%	19,01%	8,47%	27,48%	100,00%
2013/2014	68,14%	20,96%	10,90%	31,86%	100,00%
2014/2015	65,40%	20,44%	12,58%	33,02%	98,43%
2015/2016	62,64%	20,94%	14,90%	35,84%	98,48%

Figure 23: participating students according to the German nationality in percentage of total first year students for the University of Duisburg-Essen

Year4	Kein Deutsche Staatsangehörigkeit	Deutsche Staatsangehörigkeit	Total
2012/2013	2,25%	17,11%	19,37%
2013/2014	2,33%	15,58%	17,91%
2014/2015	2,23%	11,61%	13,84%
2015/2016	4,84%	22,27%	27,10%

Figure 24: participating students according to the German nationality in percentage of participating students for the University of Duisburg-Essen

Year4	Kein Deutsche Staatsangehörigkeit	Deutsche Staatsangehörigkeit	Total
2012/2013	11,50%	87,40%	98,90%
2013/2014	12,97%	86,56%	99,53%
2014/2015	15,63%	81,31%	96,95%
2015/2016	17,75%	81,71%	99,46%

Figure 25: participating students according to their main source of finance for the study in percentage of total number of first year students for the University of Duisburg-Essen

Year6	Eigener Verdienst während der Verlesungszeit2	Eigener Verdienst während der kommenden vorlesungsfreien part 2 Zeit 2	Eigene Mittel, vor dem Studium erworben/anges	Zuwendung von Eltern/Verwandten2	Zuwendungen von Partner/in2	Ausbildungsförderung nach dem BAföG 2	Bildungskredit/Studienkredit2	Stipendium2	Waisengeld/Waisenrente2	Sonstiges 2	Total Hauptfinanzierungsquelle
2012/2013	2,98%	0,36%	1,00%	9,17%	0,34%	4,29%	0,31%	0,12%	0,00%	0,12%	18,69%
2013/2014	2,22%	0,29%	0,74%	8,59%	0,30%	3,99%	0,30%	0,22%	0,00%	0,19%	16,85%
2014/2015	1,81%	0,21%	0,91%	7,12%	0,28%	3,18%	0,22%	0,09%	0,00%	0,16%	13,98%
2015/2016	4,21%	1,34%	1,22%	12,74%	0,46%	5,79%	0,39%	0,17%	0,24%	0,32%	26,88%

Figure 26: participating students according to their main source of finance for the study in percentage of participating students for the University of Duisburg-Essen

Year6	Eigener Verdienst während der Verlesungszeit2	Eigener Verdienst während der kommenden vorlesungsfreien part 4 Zeit 3	Eigene Mittel, vor dem Studium erworben/anges	Zuwendung von Eltern/Verwandten5	Zuwendungen von Partner/in6	Ausbildungsförderung nach dem BAföG 7	Bildungskredit/Studienkredit8	Stipendium9	Waisengeld/Waisenrente10	Sonstiges 11	Total Hauptfinanzierungsquelle
2012/2013	15,22%	1,86%	5,10%	46,83%	1,72%	21,90%	1,58%	0,62%	0,00%	0,62%	95,45%
2013/2014	12,31%	1,60%	4,14%	47,74%	1,69%	22,18%	1,69%	1,22%	0,00%	1,03%	93,61%
2014/2015	12,67%	1,48%	6,38%	49,86%	1,94%	22,29%	1,57%	0,65%	0,00%	1,11%	97,96%
2015/2016	15,44%	4,92%	4,47%	46,76%	1,67%	21,24%	1,43%	0,64%	0,88%	1,18%	98,62%

Figure 27: Number of first year students of the University of Duisburg-Essen categorised by age and gender for 2016/2017

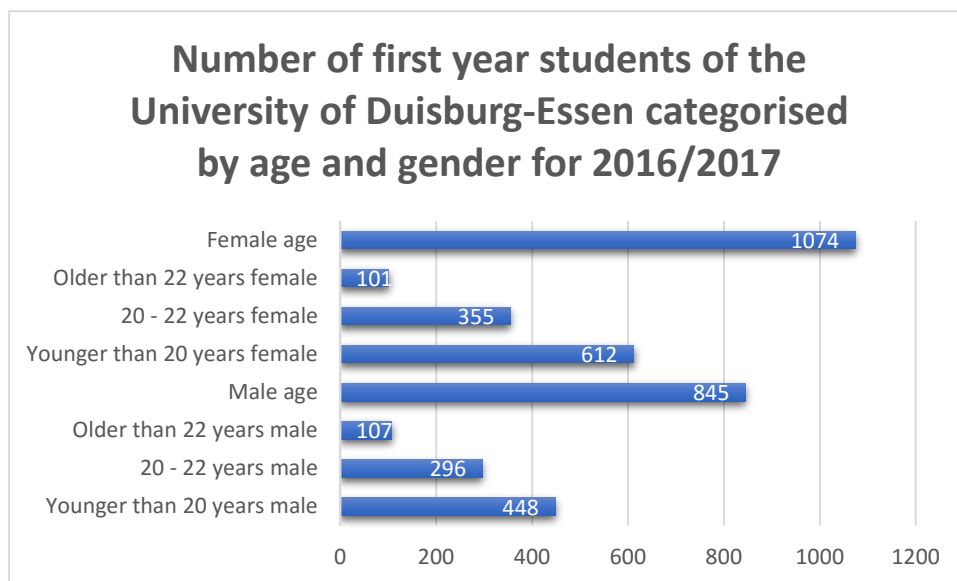


Figure 28: Number of first year students of the University of Duisburg-Essen categorised by academic background and gender for 2016/2017

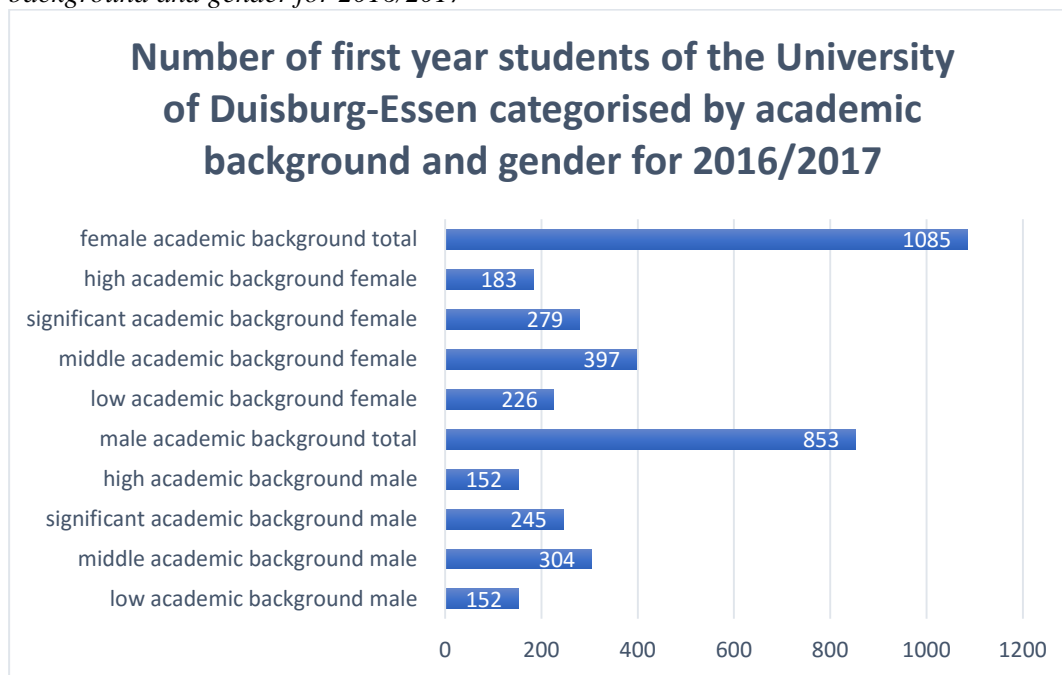


Figure 29: Number of first year students of the University of Duisburg-Essen categorised by migration background and gender for 2016/2017

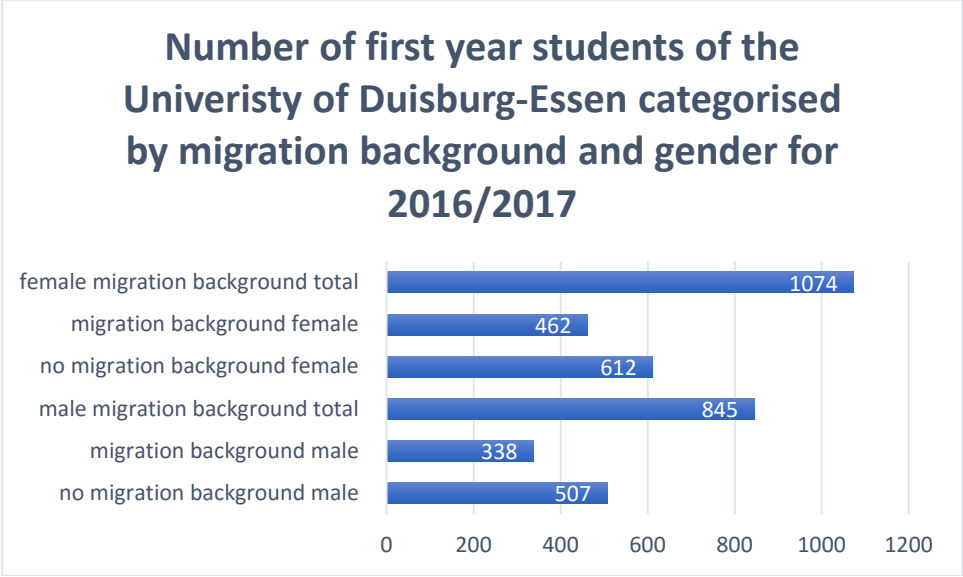


Figure 30: Number of first year students of the University of Duisburg-Essen categorised by main source of finance for the study and gender for 2016/2017

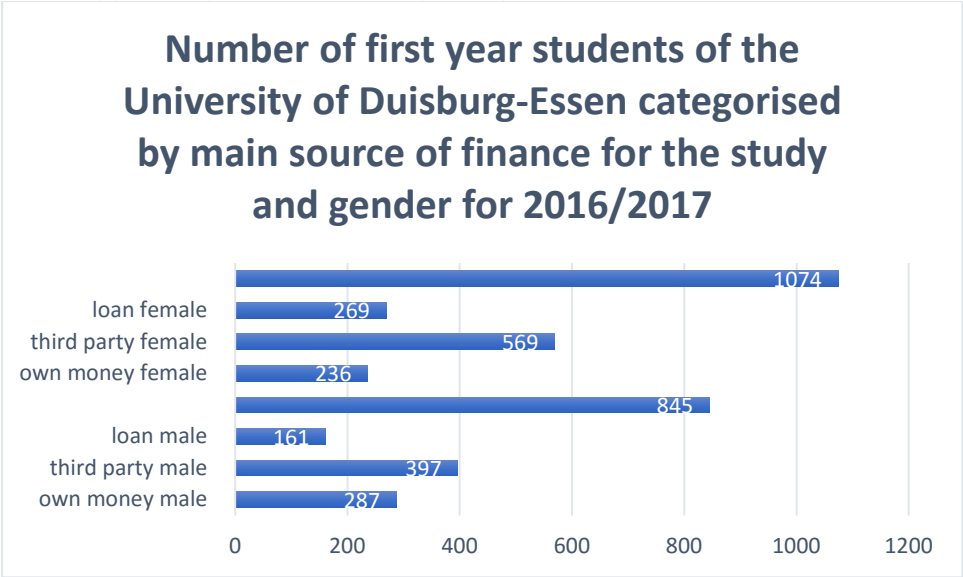


Figure 31: Number of first year students of the University of Duisburg-Essen categorised by gender and age for 2016/2017

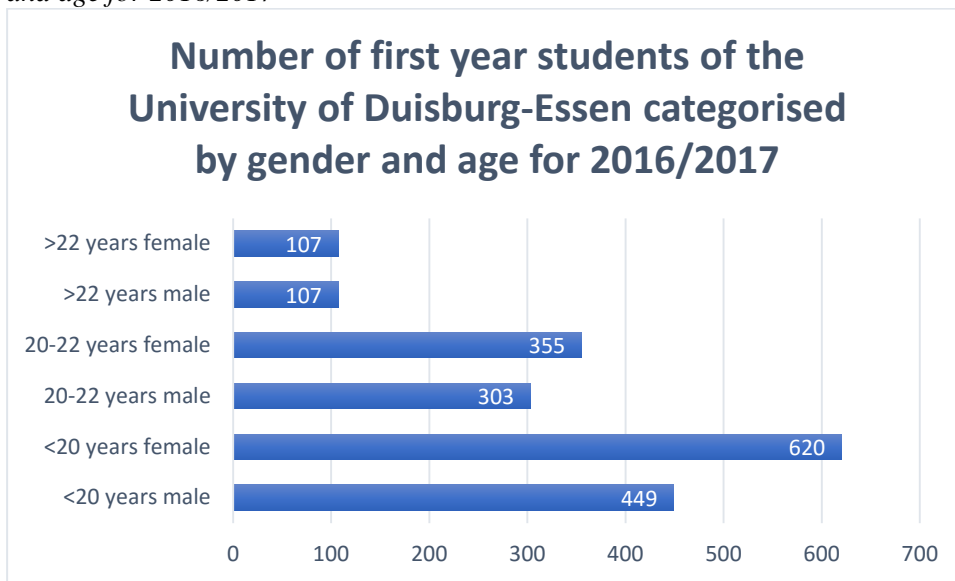


Figure 32: Number of first year students of the University of Duisburg-Essen categorised by educational background and age for 2016/2017

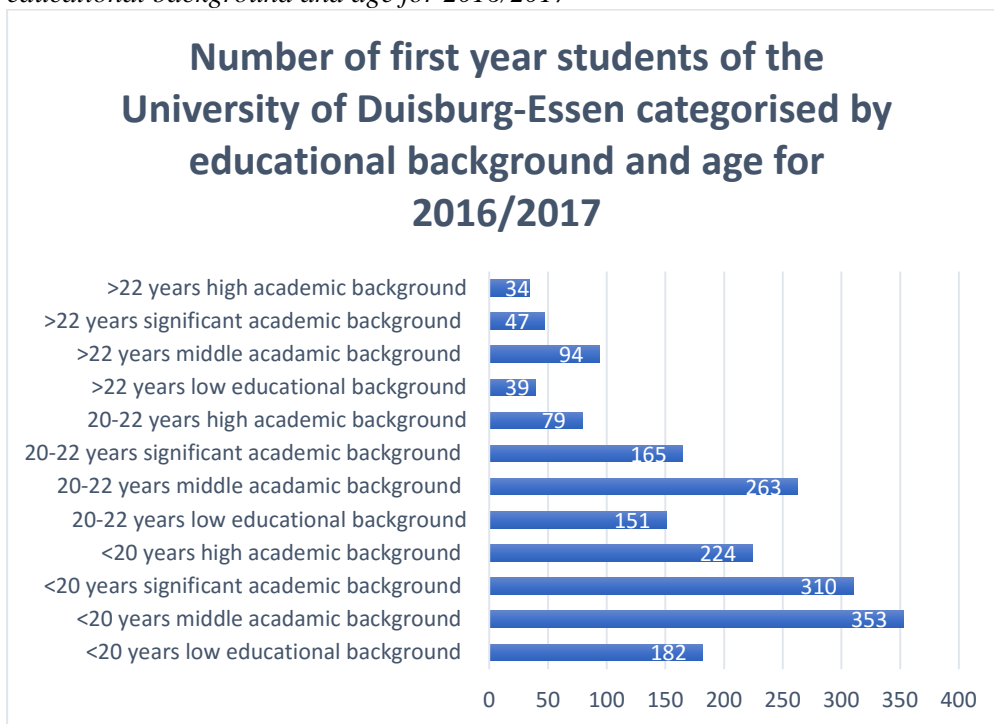


Figure 33: Number of first year students of the University of Duisburg-Essen categorised by migration background and age for 2016/2017

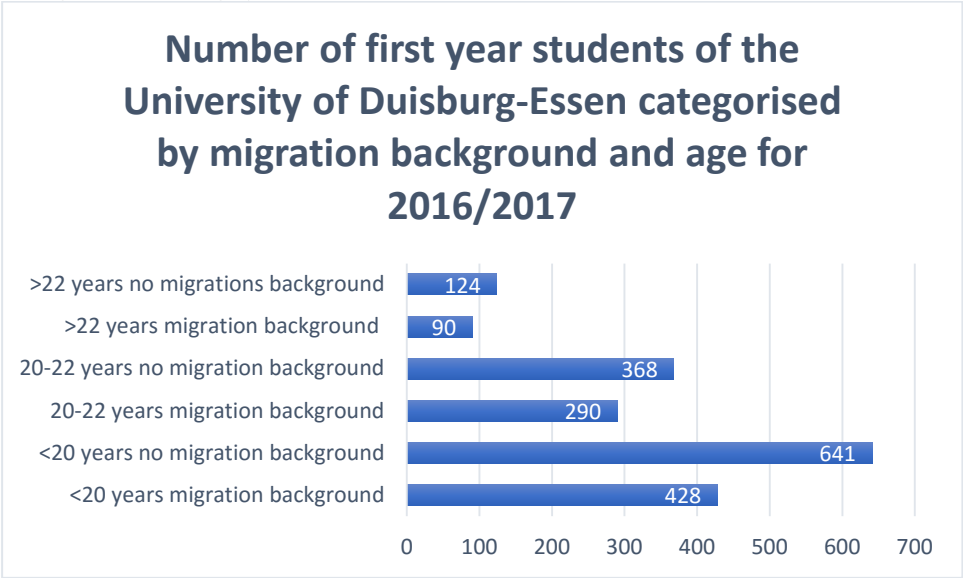


Figure 34: Number of first year students of the University of Duisburg-Essen categorised by main source of finance of the study and age for 2016/2017

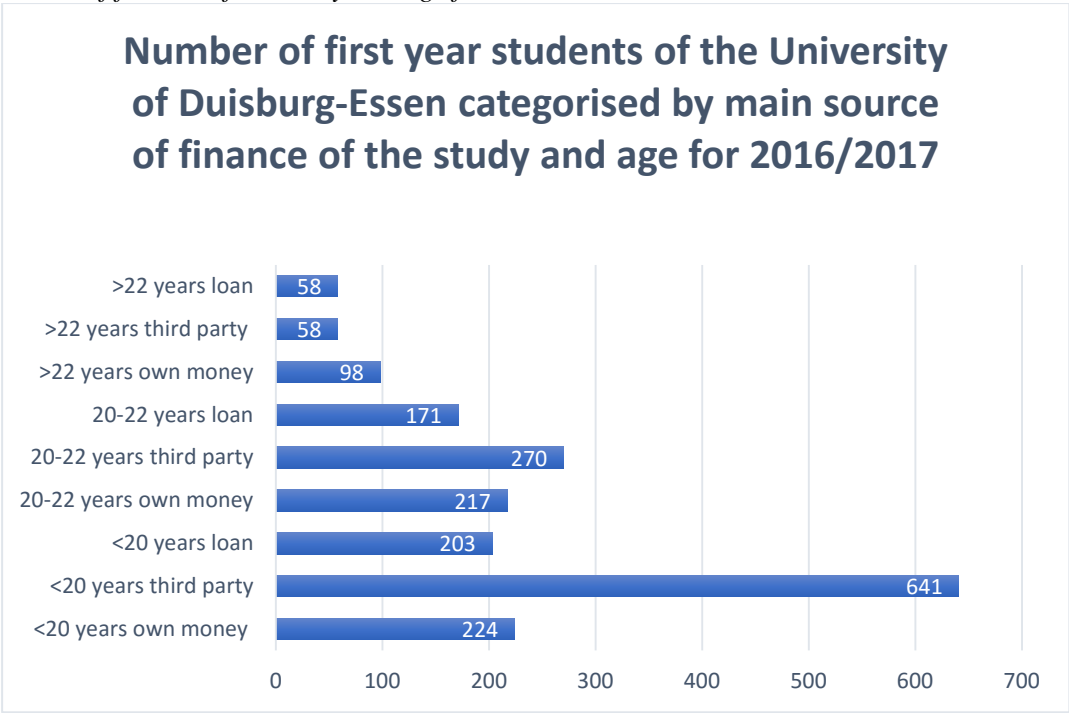


Figure 35: Number of first year students of the University of Duisburg-Essen categorised by gender and academic background for 2016/2017

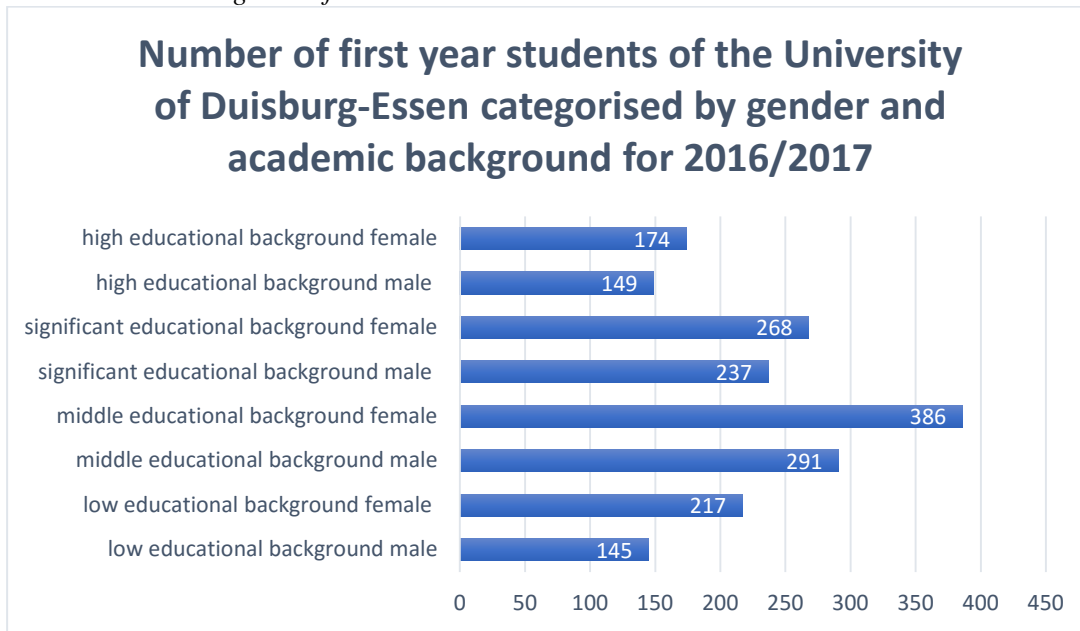


Figure 36: Number of first year students of the University of Duisburg-Essen categorised by age and academic background for 2016/2017

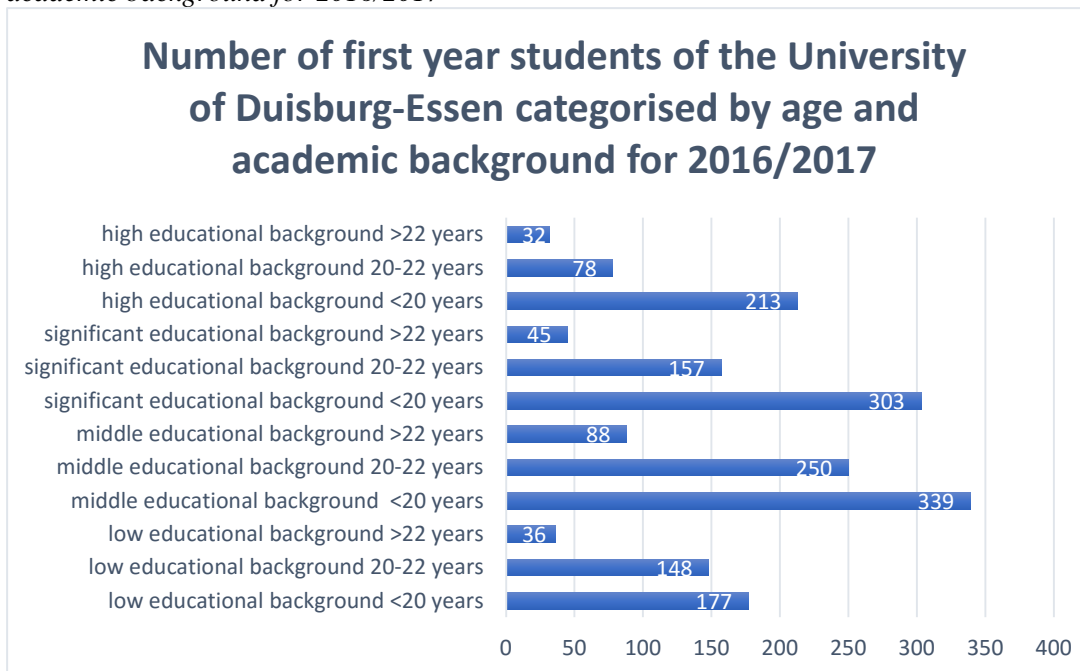


Figure 37: Number of first year students of the University of Duisburg-Essen categorised by migration background and academic background for 2016/2017

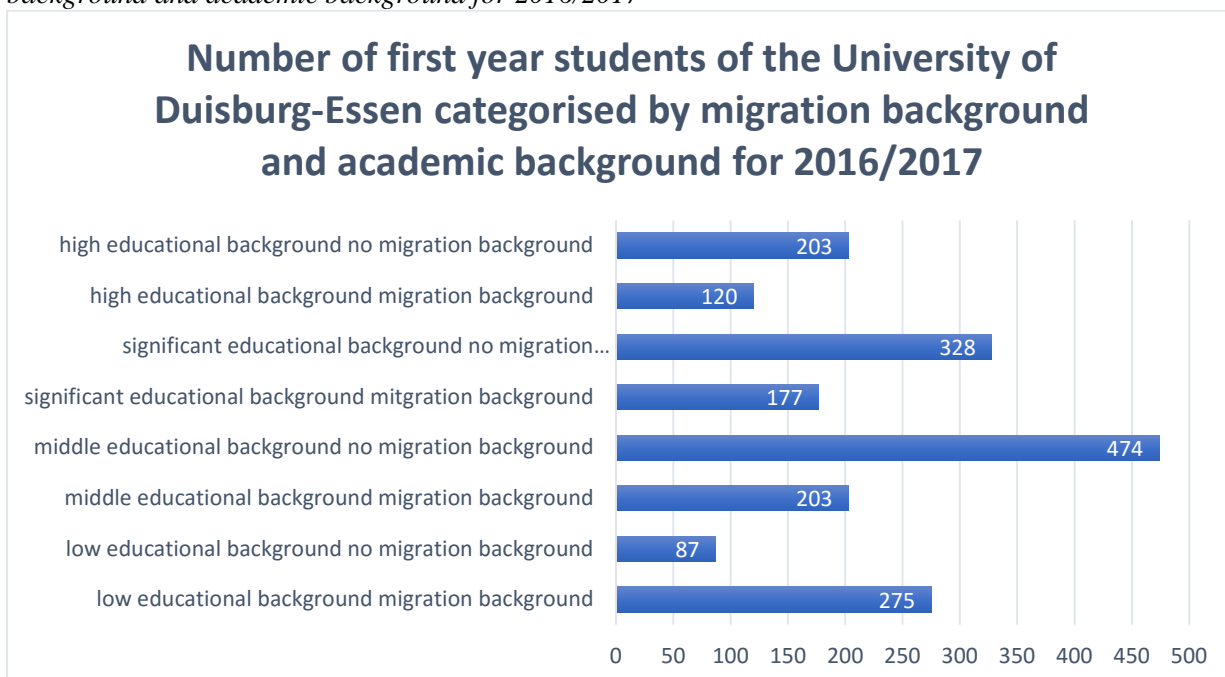


Figure 38: Number of first year students of the University of Duisburg-Essen categorised by main source of finance of the study and academic background for 2016/2017

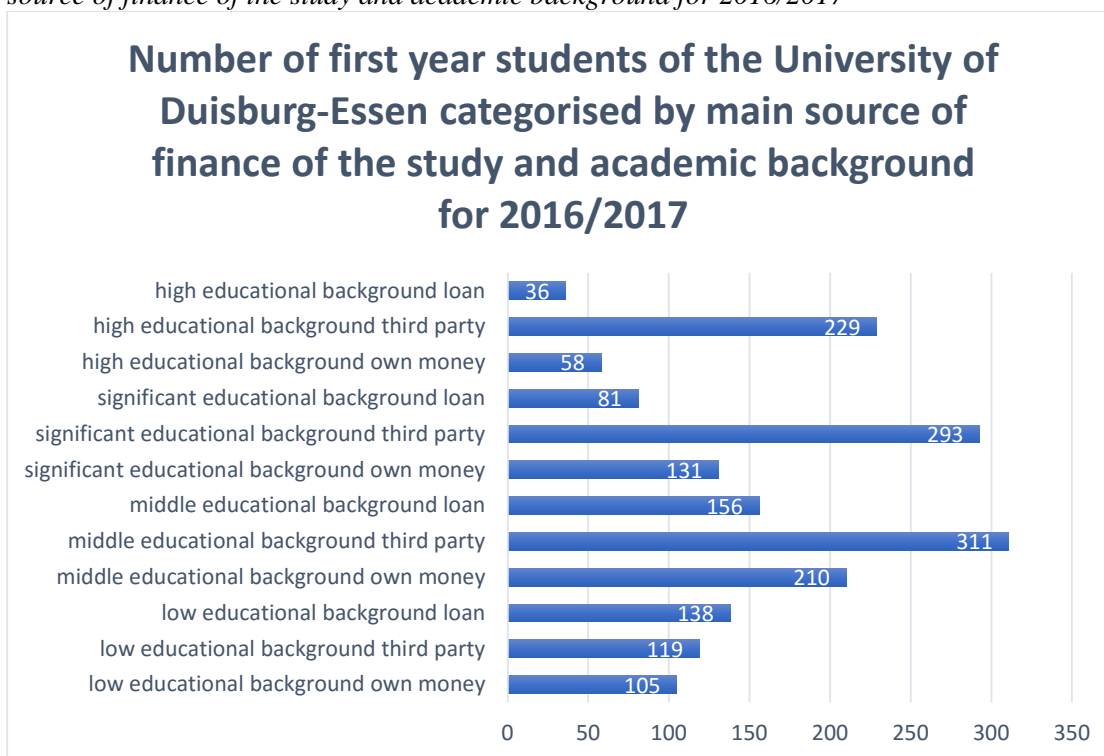


Figure 39: Number of first year students of the University of Duisburg-Essen categorised by gender and migration background for 2016/2017

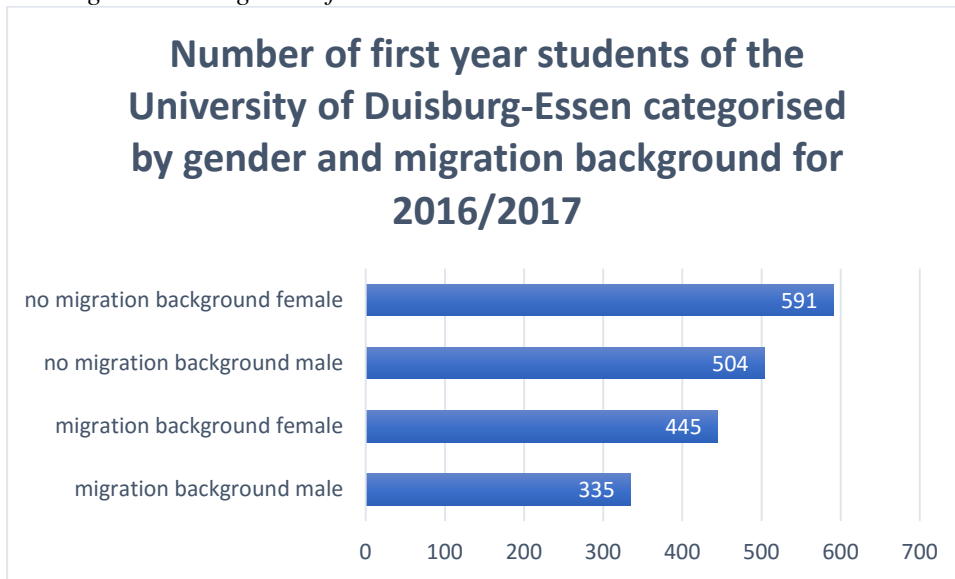


Figure 40: Number of first year students of the University of Duisburg-Essen categorised by age and migration background for 2016/2017

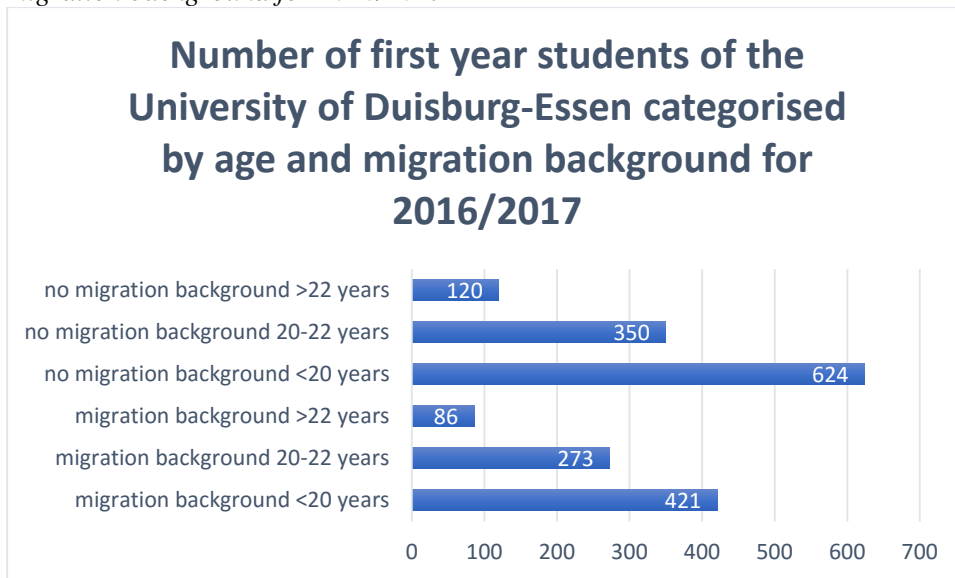


Figure 41: Number of first year students of the University of Duisburg-Essen categorised by academic background and migration background for 2016/2017

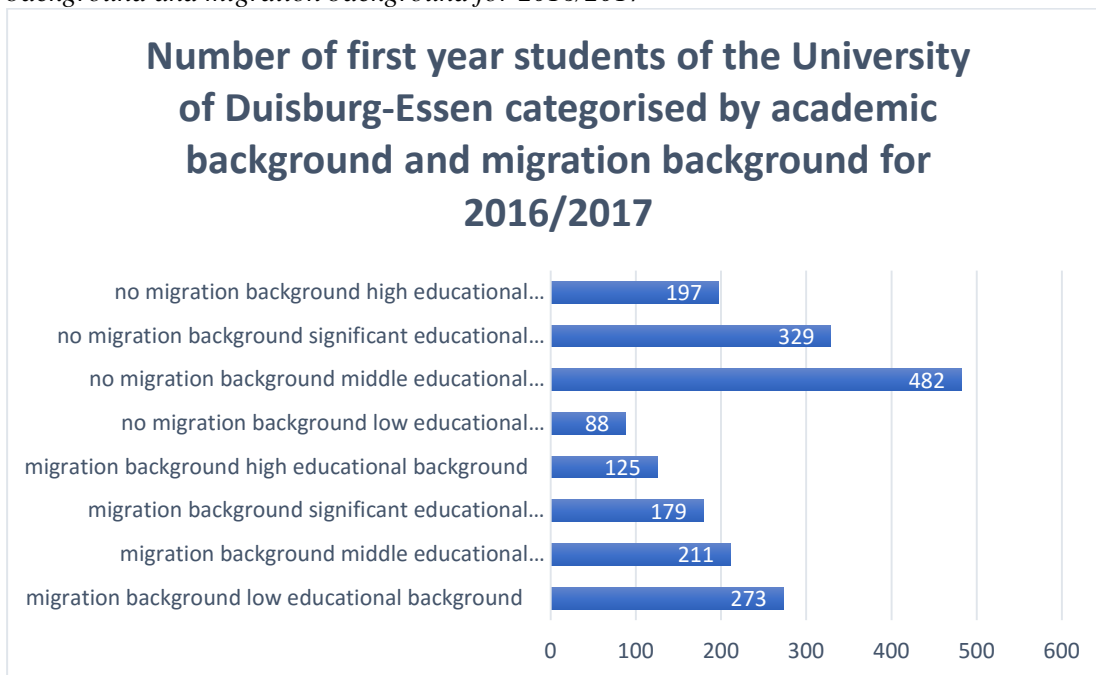


Figure 42: Number of first year students of the University of Duisburg-Essen categorised by main source of finance of the study and migration background for 2016/2017

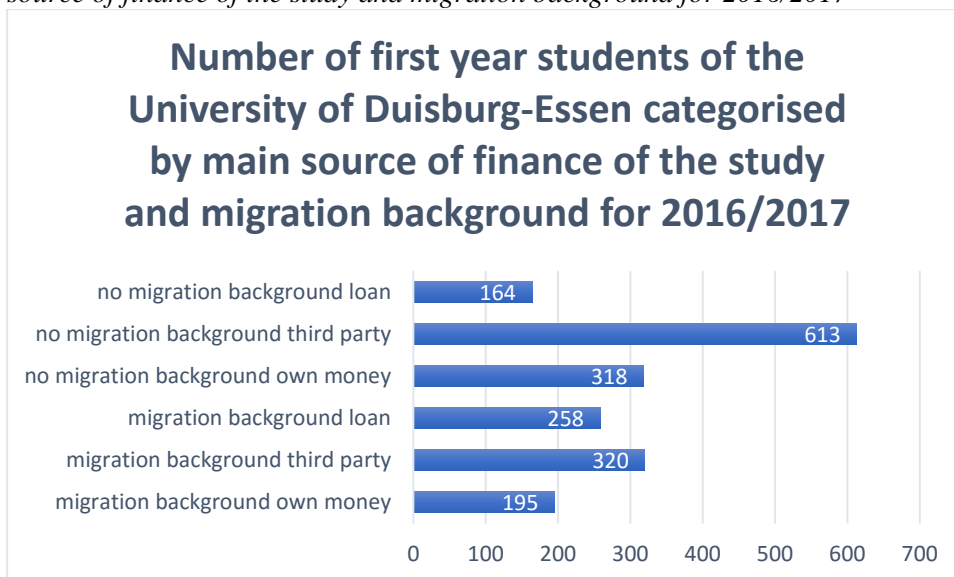


Figure 43: Number of first year students of the University of Duisburg-Essen categorised by gender for 2016/2017

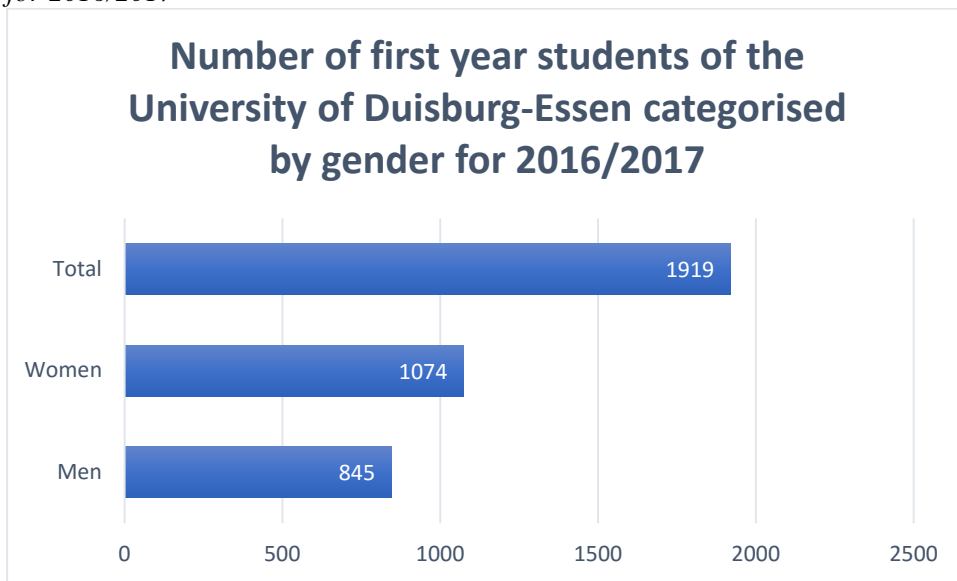


Figure 44: Number of first year students of the University of Duisburg-Essen categorised by age for 2016/2017

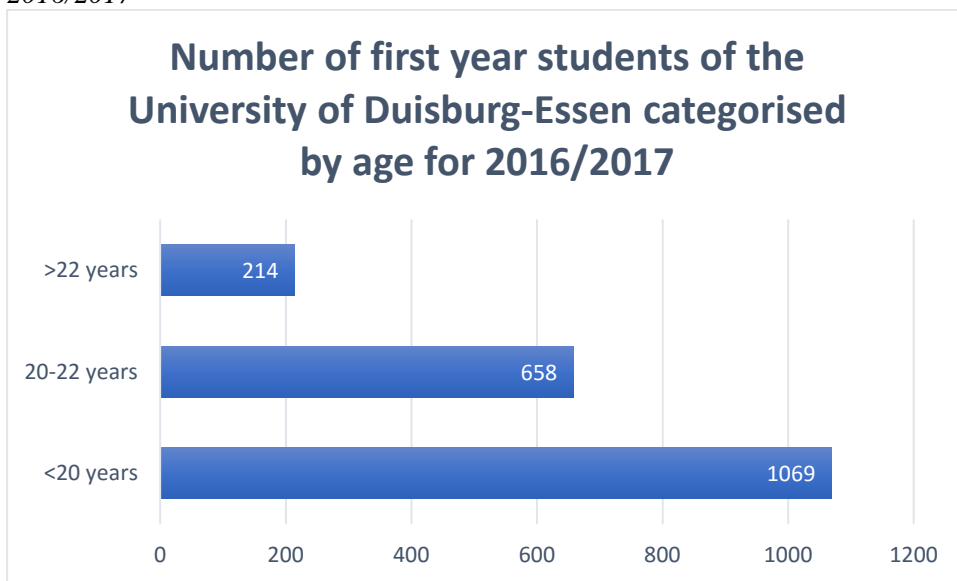


Figure 45: Number of first year students of the University of Duisburg-Essen categorised by academic background for 2016/2017

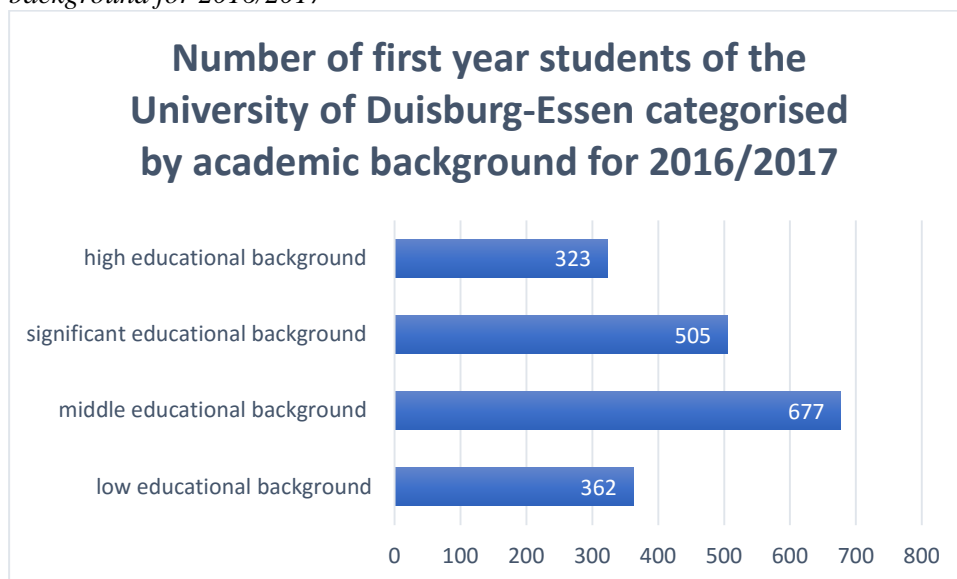


Figure 46: Number of first year students of the University of Duisburg-Essen categorised by migration background for 2016/2017

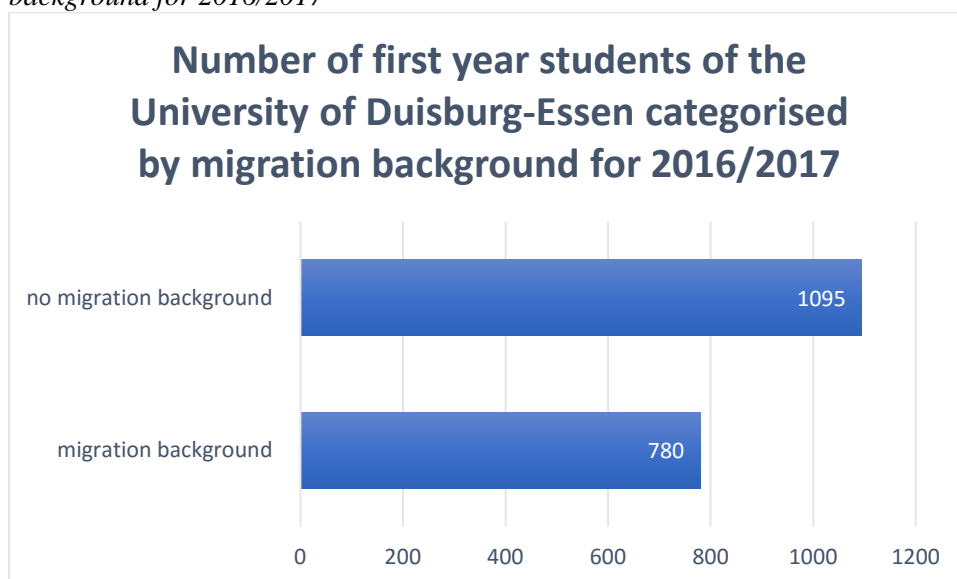


Figure 47: Number of the University of Duisburg-Essen

Year	Total number of first year students	Total number of emailaddresses of first year students	Total number of participating first year students
2012/2013	7415	6952	1452
2013/2014	5912	5042	1064
2014/2015	7573	6253	1081
2015/2016	7464	7340	2034
2016/2017	5581	5419	1964

Figure 48: Percentage of total number of first year students of the University of Duisburg-Essen

Year	Total number of first year students	Percentage of emailaddresses of first year students	Percentage of respondes to the email
2012/2013	7415	93,76%	20,89%
2013/2014	5912	85,28%	21,10%
2014/2015	7573	82,57%	17,29%
2015/2016	7464	98,34%	27,71%
2016/2017	5581	97,10%	36,24%

Figure 49: Number of applicants per POLAR Quintile for the University of Cambridge

Year	POLAR Q5	POLAR Q4	POLAR Q3	POLAR Q2	POLAR Q1	POLARQun	Total
2002	4077	3381	1167	740	432	707	10504
2003	4412	3622	1223	761	479	871	11068
2004	4266	3774	1303	859	538	847	11587
2005	3718	3312	1157	741	492	1647	11067
2006	3836	3076	1099	720	441	1348	10530
2007	3735	2929	1073	735	420	1341	10233
2008	3767	2924	1090	847	403	1361	10301
2009							
2010							
2011	4305	2244	1348	803	375	53	9128
2012	4251	2187	1422	788	418	76	9142
2013	4339	2272	1467	920	441	87	9526
2014	4630	2252	1392	844	438	60	9616
2015	4604	2194	1404	819	449	63	9533
2016	4791	2270	1424	891	502	72	9950
2017	5169	2557	1601	917	566	114	10924

Figure 50: Number of acceptances per POLAR Quintile for the University of Cambridge

Year	POLAR Q5	POLAR Q4	POLAR Q3	POLAR Q2	POLAR Q1	POLARQun	Total
2002	1290	995	322	171	120	155	3053
2003	1253	987	350	161	112	172	3035
2004	1209	899	314	186	102	183	2893
2005	1112	831	312	159	114	343	2871
2006	1224	806	268	141	95	291	2825
2007	1189	787	284	168	86	292	2806
2008	1172	831	294	171	105	337	2910
2009							
2010							
2011	1323	608	311	165	66	11	2484
2012	1366	608	343	169	93	14	2593
2013	1324	587	360	166	89	22	2548
2014	1407	551	323	166	93	11	2551
2015	1429	567	331	156	75	15	2573
2016	1467	562	301	192	85	15	2622
2017	1368	612	311	179	118	24	2612

Figure 51: Percentage of the total number of applicants for each POLAR Quintile for each year since 2002

Year	% Q5 of total	% Q4 of total	% Q3 of total	% Q2 of total	% Q1 of total	% Qun of total
2002	38,81%	32,19%	11,11%	7,04%	4,11%	6,73%
2003	39,86%	32,72%	11,05%	6,88%	4,33%	7,87%
2004	36,82%	32,57%	11,25%	7,41%	4,64%	7,31%
2005	33,60%	29,93%	10,45%	6,70%	4,45%	14,88%
2006	36,43%	29,21%	10,44%	6,84%	4,19%	12,80%
2007	36,50%	28,62%	10,49%	7,18%	4,10%	13,10%
2008	36,57%	28,39%	10,58%	8,22%	3,91%	13,21%
2009						
2010						
2011	47,16%	24,58%	14,77%	8,80%	4,11%	0,58%
2012	46,50%	23,92%	15,55%	8,62%	4,57%	0,83%
2013	45,55%	23,85%	15,40%	9,66%	4,63%	0,91%
2014	48,15%	23,42%	14,48%	8,78%	4,55%	0,62%
2015	48,30%	23,01%	14,73%	8,59%	4,71%	0,66%
2016	48,15%	22,81%	14,31%	8,95%	5,05%	0,72%
2017	47,32%	23,41%	14,66%	8,39%	5,18%	1,04%

Figure 52: Percentage of total number of acceptances for each POLAR Quintile since 2002

Year	%Q5 of total	%Q4 of total	%Q3 of total	%Q2 of total	%Q1 of total	%Qun of total
2002	42,25%	32,59%	10,55%	5,60%	3,93%	5,08%
2003	41,29%	32,52%	11,53%	5,30%	3,69%	5,67%
2004	41,79%	31,08%	10,85%	6,43%	3,53%	6,33%
2005	38,73%	28,94%	10,87%	5,54%	3,97%	11,95%
2006	43,33%	28,53%	9,49%	4,99%	3,36%	10,30%
2007	42,37%	28,05%	10,12%	5,99%	3,06%	10,41%
2008	40,27%	28,56%	10,10%	5,88%	3,61%	11,58%
2009						
2010						
2011	53,26%	24,48%	12,52%	6,64%	2,66%	0,44%
2012	52,68%	23,45%	13,23%	6,52%	3,59%	0,54%
2013	51,96%	23,04%	14,13%	6,51%	3,49%	0,86%
2014	55,15%	21,60%	12,66%	6,51%	3,65%	0,43%
2015	55,54%	22,04%	12,86%	6,06%	2,91%	0,58%
2016	55,95%	21,43%	11,48%	7,32%	3,24%	0,57%
2017	52,37%	23,43%	11,91%	6,85%	4,52%	0,92%

Figure 53: Percentage of applicants accepted for each POLAR Quintile since 2002

Year	POLAR Q5	POLAR Q4	POLAR Q3	POLAR Q2	POLAR Q1	POLARQun	Total
2002	31,64%	29,43%	27,59%	23,11%	27,78%	21,92%	29,07%
2003	28,40%	27,25%	28,62%	21,16%	23,38%	19,75%	27,42%
2004	28,34%	23,82%	24,10%	21,65%	18,96%	21,61%	24,97%
2005	29,91%	25,09%	26,97%	21,46%	23,17%	20,83%	25,94%
2006	31,91%	26,20%	24,39%	19,58%	21,54%	21,59%	26,83%
2007	31,83%	26,87%	26,47%	22,86%	20,48%	21,77%	27,42%
2008	31,11%	28,42%	26,97%	20,19%	26,05%	24,76%	28,25%
2009							
2010							
2011	30,73%	27,09%	23,07%	20,55%	17,60%	20,75%	27,21%
2012	32,13%	27,80%	24,12%	21,45%	22,25%	18,42%	28,36%
2013	30,51%	25,84%	24,54%	18,04%	20,18%	25,29%	26,75%
2014	30,39%	24,47%	23,20%	19,67%	21,23%	18,33%	26,53%
2015	31,04%	25,84%	23,58%	19,05%	16,70%	23,81%	26,99%
2016	30,62%	24,76%	21,14%	21,55%	16,93%	20,83%	26,35%
2017	26,47%	23,93%	19,43%	19,52%	20,85%	21,05%	23,91%

Figure 54: Number of applicants to the University of Cambridge since 2002

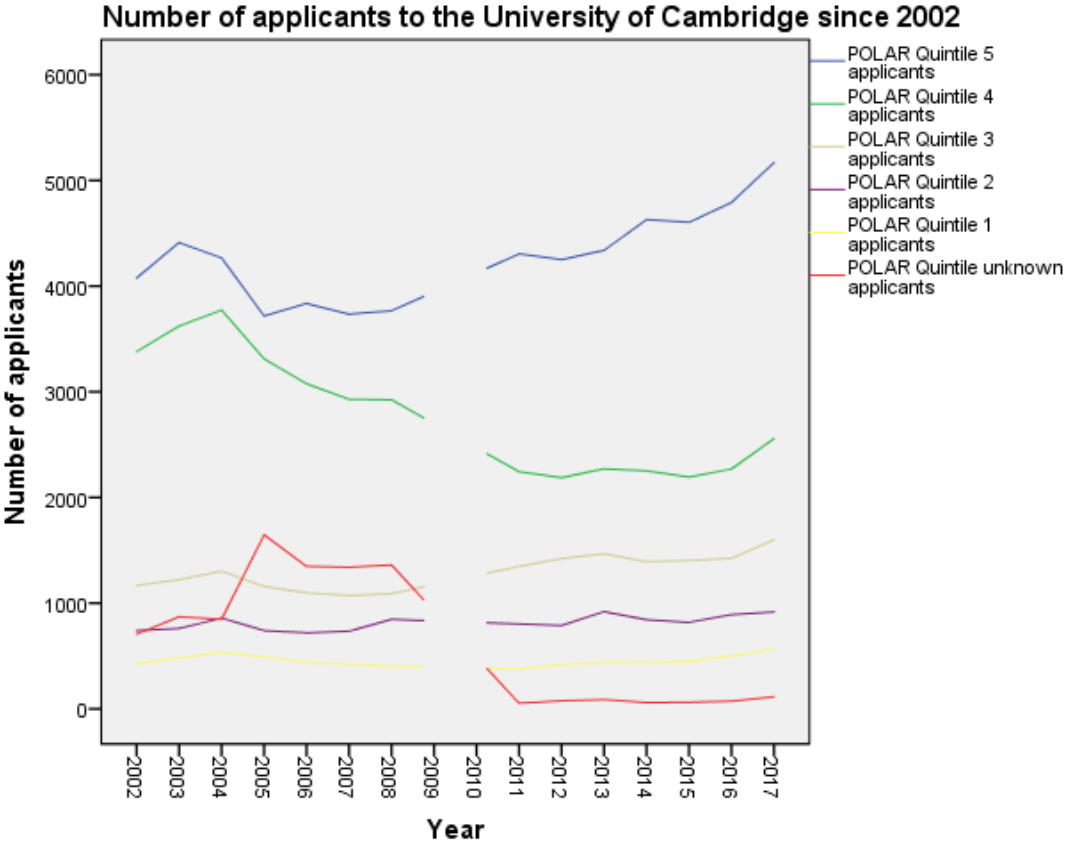


Figure 55: Number of acceptances to the University of Cambridge since 2002

Number of acceptances to the University of Cambridge per POLAR Quintile since 2002

